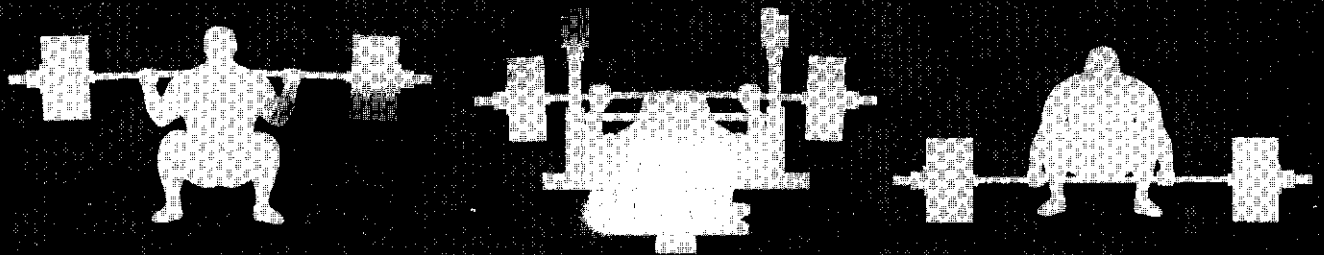


# POWER TO THE PEOPLE PROFESSIONAL

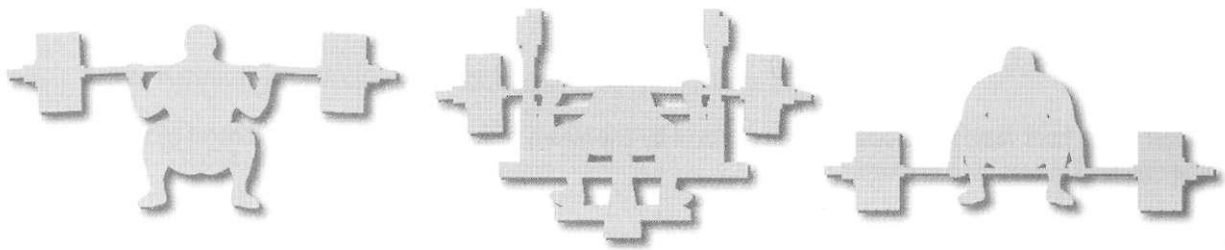
HOW TO ADD 100S OF POUNDS TO  
YOUR SQUAT, BENCH, AND DEADLIFT  
WITH ADVANCED RUSSIAN TECHNIQUES



BY PAVEL

# POWER TO THE PEOPLE PROFESSIONAL

HOW TO ADD 100S OF POUNDS TO  
YOUR SQUAT, BENCH, AND DEADLIFT  
WITH ADVANCED RUSSIAN TECHNIQUES



**BY PAVEL**

# - TABLE OF CONTENTS -

FOREWORD	III
INTRODUCTION: TOP SECRET. BURN BEFORE READING.	V
CHAPTER 1: TOTAL	1
From a broken back to a 1,014-pound deadlift: Valentin Dikul's secrets of strength	1
Train light, compete heavy	8
Ukrainian powerlifting secrets, or what it took to break a twenty-three year old world record	13
How Russian lifters quickly get back in shape after a layoff	27
WPC Russia, how do they train?	30
'Specialized variety': get strong with foolproof assistance exercises	39
Part I: The theory	39
Part II: The method	46
Part III: The drills	53

<b>CHAPTER II: SQUAT</b>	<b>63</b>
The Smolov nightmare, or how to add up to 100 pounds to your squat in thirteen weeks	63
The Ryabinnikov plan: another world class Russian squat cycle	68
Half a year in the squat rack	74
The 'squat survival system'	77
<b>CHAPTER III: PRESS</b>	<b>89</b>
How to bench big the Russian way	89
Bench and nothing but the bench—all the way to 600	102
Bench: extreme specialization	107
How the Russians pressed overhead	117
Part I: the technique	115
Part II: the training	125
<b>CHAPTER IV: PULL</b>	<b>141</b>
Latvian deadlift secrets, or how to pull 948 pounds	141
Round back deadlifts—man makers or back killers?	144
Siberian Westside	150
Secrets of the deadlift leg drive	150
The Smolov deadlift: another iconic power plan	155
"He who does not have a good deadlift does not get to drink champagne!"	162
Don't leak your deadlift strength!	169
Why Russians choose to grind their pulls	175

## FOREWORD

BY MARC BARTLEY, RKC

# " Why Not Me ? "

**A** long time ago, I started my quest to reach the top of the powerlifting world. I thought I was very successful at the time. At the halfway point I met Pavel and my thought process about training took a giant leap forward—and so did my career. My name is Spud aka Marc Bartley. For the past ten years, I have been powerlifting, training athletes and non-athletes, writing and in general using the knowledge, skills and practical experience I have gained, to reach beyond normal human limits and in the process take all who wanted to get on the bus with me.

Back to Pavel, I met Pavel at the WPO Super Finals at the Arnold Classic in 2005. I was walking the trade show floor and came upon the Dragon Door booth. Pavel and I began talking about my deadlift and how I was concerned that my grip wouldn't hold out for me to pull what I needed the next day in competition. He gave me a ton of tips to use and even came backstage the next day to help me prepare for my deadlifts.

Two great things happened that day: I took second in the Heavyweight division with a 2,463 total and I was invited to the next RKC Certification. At the time, I just thought that being an RKC was a great way to improve and learn some new skills (yes, Kettlebells). I learned more in the weekend with Pavel than I had learned about training in several years. He helped me turn all my hunches and hodgepodge training into an organized plan over time. I took all the information he gave away freely and used it to raise my total over 100 lbs. in a single year. I became one of the few people at the time in the world to have squatted over 1,100 lbs. in a meet!

Fast forward two years later. Pavel invited me back out to Minnesota to recertify my RKC. Since my first 1,100 lbs. squat, I had squatted over 1,100 lbs. several more times with a high of 1,124 lbs. in 2006. During that time, I also accumulated several injuries that led to a major quad tear in 2007. During the healing time, Pavel's newsletters and articles helped to motivate me to a new challenge.

I decided to drop body weight from an all time high of 303 lbs. (at 5'8") to what I thought would be a ripped 235 lbs. I used a training program Pavel had researched and published in a newsletter. This program was perfectly matched to my strength levels as I began to drop body fat using a carbohydrate cycling diet. In the end, I dropped 109 lbs. and did a bodybuilding show!!

Without the program Pavel specified, my road would have been much tougher to travel and complete. I was able to hold more muscle and strength levels as I healed and rehabbed the quad tendon and the damaged ancillary nerve in my shoulder.

Today, I am headed for a comeback at a lighter bodyweight. I will travel another route to get there this time employing a block-type training program that

was first formulated, practiced and perfected in the Eastern Bloc countries. Being well versed in this protocol, I am sure Pavel will once again be of great assistance on my newer endeavor as he has in the past. I hope you enjoy the knowledge that this collection of pieces offers you. Maybe you will find a program or technique to use to take your personal goals to the next level. Good luck!



Photo courtesy Marc Bartley, RKC

## INTRODUCTION

**S**ecrecy was taken seriously in the Soviet Union. In the military we were not allowed to bring any paper into the classroom for classes on so-called 'special disciplines'. We would sign out our notebooks from the platoon leader who kept them in a safe. Each notebook had numbered pages to make sure you did not rip any out. And just in case a wily American spy would try to replace some pages with new ones, a hole had been punched in the notebook. A string was fed through and secured with a seal. After the class held in a room with barred windows the notebooks were returned to the lieutenant who checked them for torn pages, signed for them, and locked them away again.



The strength training world could use such secrecy. Some knowledge ought to be available only to the ruling power elite. Before you accuse me of attempting to keep the masses out of the exclusive club of the world's strongest men, consider the following situation.

An up-and-comer takes a sneak peak into Gallagher's and Sheyko's kitchens. The former coach recommends taking a few weeks if not a month off power training after an important meet. The latter urges the lifter to be back in the gym the day after for fear of losing strength. Who is right?

Our newbie gets hopelessly confused. He concludes that nobody knows anything, that strength training is a discipline as vague as nutrition, and that he just needs to "find what works for him". Which is a recipe for dead end experimentation. "What if I combine Sheyko's training schedule with a Gallagher style layoff...?"

An inexperienced strength trainer is not 'ideologically sound' enough to be tempted by the shiny forbidden fruit of advanced training techniques and methodologies. A lifter who has been around will recognize that both Gallagher and Sheyko are right—in the context of their own systems. A 1960s German study discovered that the rate of detraining depends on the training frequency. The more often one strength trains, the quicker he will detrain once he stops and vice versa. Gallagher's charges deadlift once a week. Sheyko's four times a week. It becomes apparent that Americans get deconditioned slower than Russians and now both recommendations make sense. A veteran PLer will figure this out or at least will realize that each national team coach must have his own reasons for the particular prescription.

A strong man understands that there is no one right way to train and that there are many 'ifs' and 'buts'. He is not going to get side tracked from his plan by the latest cool routine. He will read it, ponder it, crunch some numbers, compare what he sees with his training log. If impressed, he might consider trying out the whole plan in the off-season or he will carefully add just one new variable to his current regimen. A greenhorn will chase many rabbits at once and catch none.

*Power to the People Professional* is an anthology of articles on advanced powerlifting training, loaded with this type of 'forbidden' training information, exciting and contradictory. The book contains most of the articles from my *Power to the People Monthly* newsletter, with the exception of the ones that dealt with intermediate rather than advanced training and the ones not relevant to powerlifting, plus a couple of pieces I have written for other powerlifting publications. Some of the articles are straightforward coverage of "how they do it in Russia", others are my original work based on years of research and experimentation. My sources ranged from leading Russian powerlifting publications *Mir Sili* and *Zhelezniy Mir* to weightlifting and neuroscience textbooks and research papers, as well as personal communication with lifters, coaches, and scientists. You are about to learn that there is no such a thing as 'the' Russian system. Russia spans twelve time zones and even in the days of communist centralization it boasted a great variety of athletic training ideas. The Russian systems have only one thing in common. The strength they deliver.

If you are a member of the ruling iron elite, dig into *Power to the People Professional* and add hundreds of pounds to your total. If you are a beginner, as a Russian joke goes, "burn before reading".

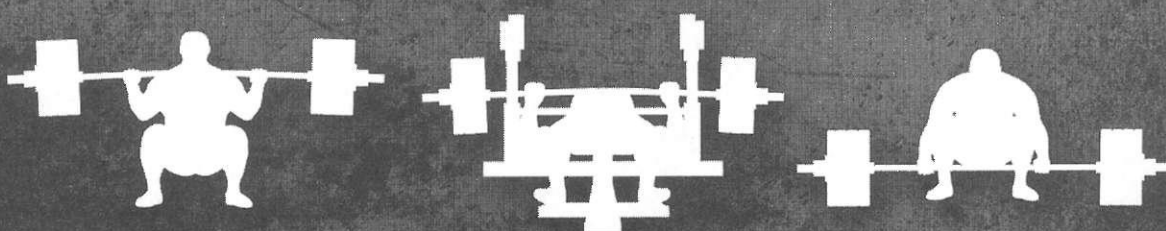




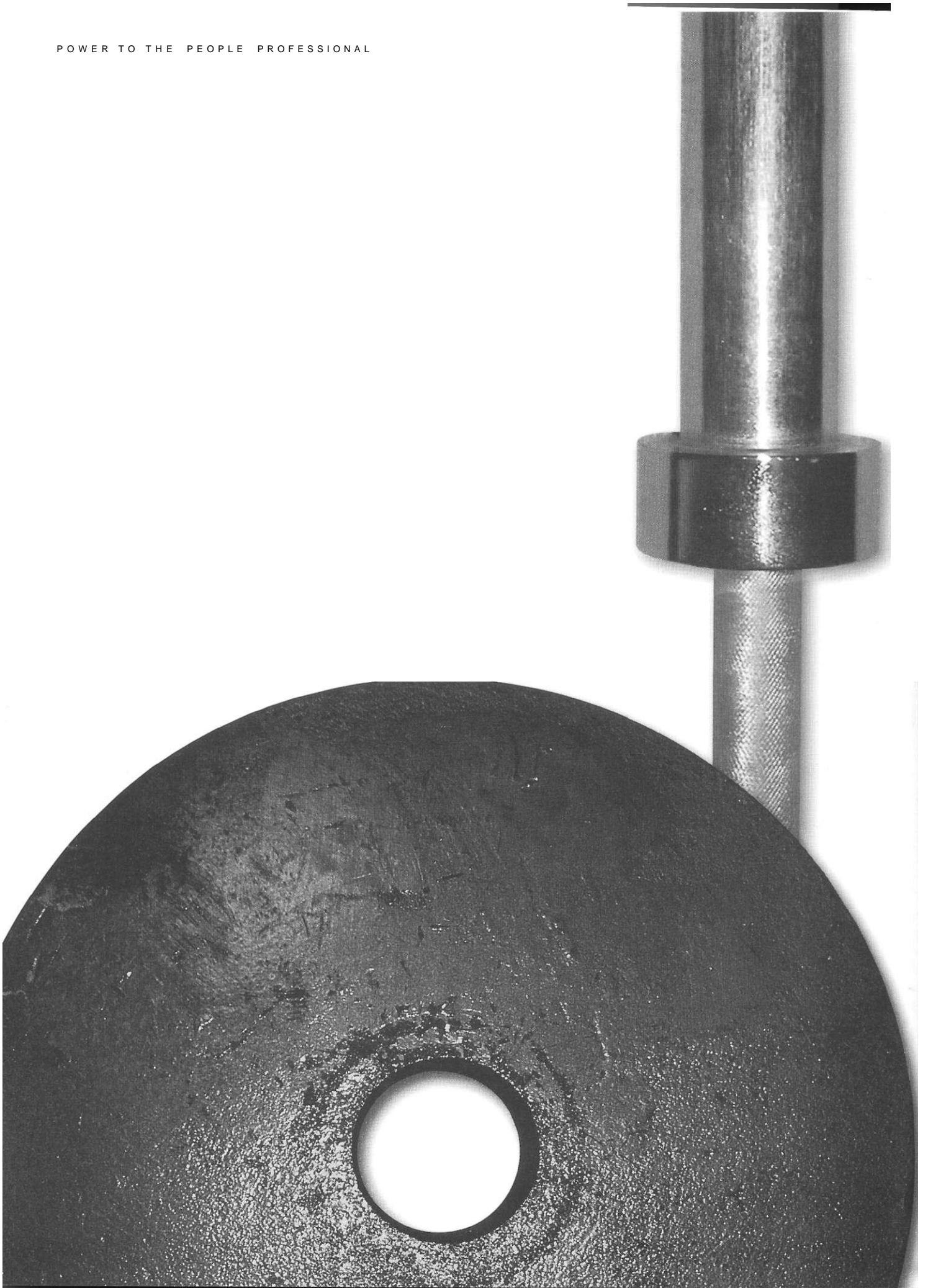
**CHAPTER**

**I**

**TOTAL**



POWER TO THE PEOPLE PROFESSIONAL



## CHAPTER I: TOTAL

# From a Broken Back to a 1,014 Pound Deadlift: Valentin Dikul's Secrets of Strength

"YOU CAN RESTORE YOURSELF FROM  
PRACTICALLY ANY CONDITION.  
THERE ARE NO HOPELESS SITUATIONS AS  
WILLPOWER HAS NO LIMITS."

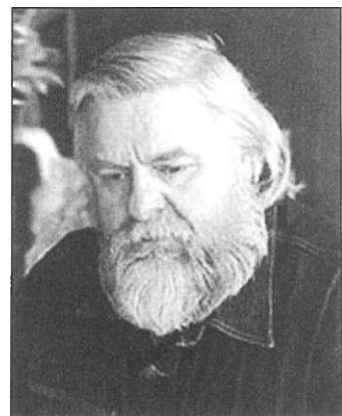
• YURI VLASOV

**G**iven Valentin Dikul's life story, it is no big surprise that he started his book with the above quote...

Young Valya Dikul got bitten by the iron bug. He organized neighborhood kids in his Lithuanian town, built a 'courage corner' in a basement, and started lifting. Compared to his buddies, Valentin was a 'hard gainer'. But he did not give up and eventually his strength caught up to his work ethic.

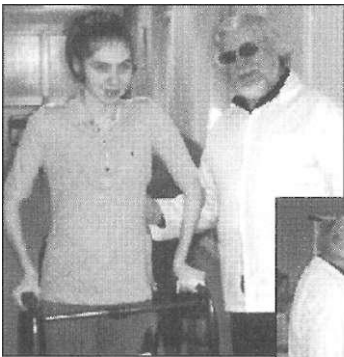
Still almost a kid, Dikul, made his dream come true and got hired as an aerial gymnast in a circus. The future looked bright. Until the day a metal structure broke and Valentin fell over forty feet to the circus floor...

With a compression spine fracture and paralyzed legs, life was over as he knew it. Young Valentin spent over a year in the hospital, was subjected to multiple surgeries of great complexity and still left the hospital a cripple, in a wheel chair. "We have done all we could," said his doctor. "You will have to sit. Accept your fate as it is."

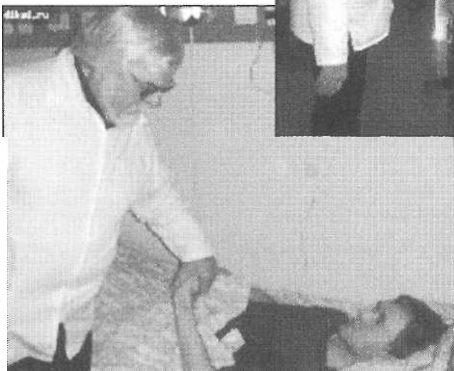


But he refuses to. Dikul takes his health in his own hands. His allies are an anatomy textbook, kettlebells, rubber bands, dumbbells, a barbell, shot puts. Overcoming horrible back pain, he presses kettlebells overhead sitting in a wheelchair, tosses shots from hand to hand. Later he has his friends, one and then two, climb onto his shoulders and supports them. He practices electrostimulation, frying his muscles with twice the recommended 'juice'. Dikul makes a unique use of cable stacks for rehab. He unloads his non-working legs with cables as counterweights. "Reverse athletic gymnastics", he calls it. "I had to tolerate the most intense pain. At times I felt that I was sweating blood," recalls Dikul. "But I understood that I had nothing to lose and consciously experimented on myself, subjected my body to the most brutal ordeals... I took full responsibility for myself."

Dikul pushes himself without mercy. There are times when he gets so exhausted from training that he cannot climb back into his wheel chair and falls asleep on the floor.



Two years of blood and sweat later a miracle happens—the man takes his first step! V. Velitchenko, a leading Soviet doctor in the field of physical therapy, comments: "Our body comes with great resilience and enormous reserves. In his whole life a person does not get to tap into even half of these reserves. Valentin Dikul, who possesses an iron will and magnificent physical preparation has... succeeded in mobilizing the hidden reserves of his body and won the battle with his illness." But judging by the Christian cross Dikul wears when he lifts, he does not take all the credit for his miraculous recovery.



Walking again would have been more than enough for an ordinary man but not for Dikul. He was determined to return to the circus! He would not be permitted to 'fly' anymore, but who could stop him from being a 'strength juggler' as Russians call their circus strongmen? "During the forced lay off"—Dikul does not recognize the word 'illness!'—"my hands became one with the metal, I got used to it, fell in love with it. After all, it has saved me..."

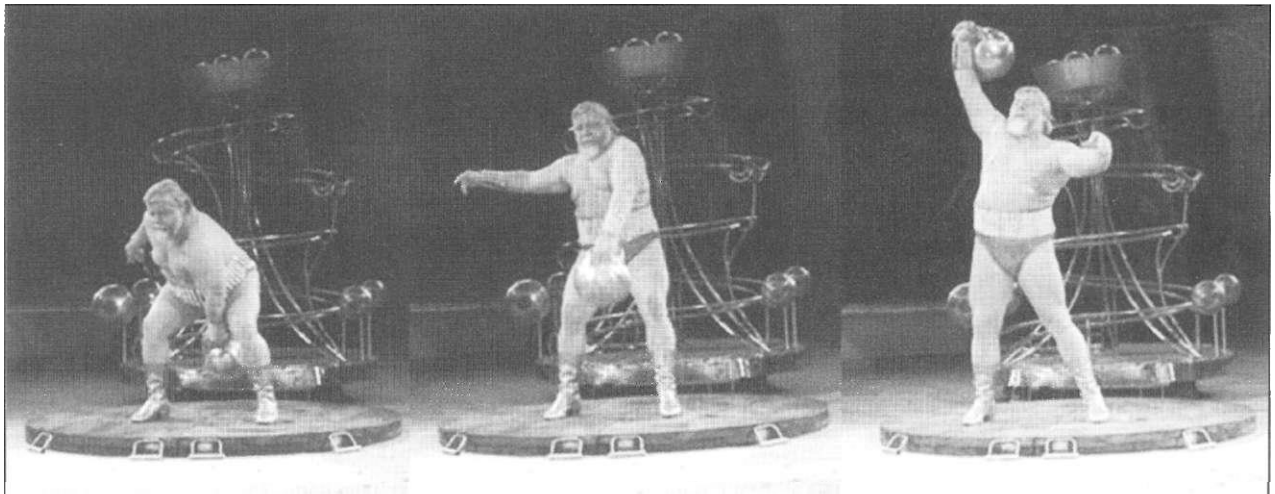
Come to think of it, even being an ordinary strongman could not satisfy this man with an iron will. He has to be the best. So he does stunts unheard of before or since. Dikul juggles seven 30kg cannonballs, rolling them on his shoulders in a spiral, tosses 70kg kettlebells, twirls a heavy old-fashioned cast iron barbell around his body.

In a wrestling bridge Dikul supports a 440kg barbell on his knees. Four assistants stand on his thighs. Plus an 80kg kettlebell on his stomach. Dikul holds another barbell in straight arms and another assistant balances on it.



He lifts a horse. He lets a Volvo drive on to a platform he's supporting on his shoulders. He casually bends a 5 kopeck coin—a copper coin similar to the US quarter in size—and hands it to a journalist who interviews him. For kicks Dikul enters a weightlifting competition and posts a Master of Sports total with a 157.5kg snatch and a 207kg jerk at 113kg of bodyweight.

The Russian strongman constantly experiments with his training and pushes himself to the limit. His workouts last four hours and his workloads reach 76 tons or 167,000 pounds!



"I consider the following exercises primary for absolute strength development," explains Dikul. "The bench press, back and front squats, deadlifts, seated dumbbell presses, and a few others... To accustom myself to work with heavy weights I did maximally heavy sets in a few exercises in my routine. I had to overcome myself to make these lifts... Very heavy and risky workouts but I used them to heal myself, I could not retreat."

Photos

## DIKUL'S ELITE POWERLIFTING SECRETS

Given his focus on the big three lifts for his all-around strength development, it is no surprise that Valentin eventually discovered powerlifting. Apart from his Rasputin eyes, senior citizen Dikul does not look like your typical powerlifter. He has a wild mane of grey hair and a beard that a Russian Orthodox priest would be proud of. In his sixties (!) the Russian *bogaty*r or strongman has squatted 450kg, benches 260kg, and deadlifts 460kg at 121kg of body-weight! These lifts were not done in a competition but they were certified. "There is nothing phenomenal," humbly argues Dikul. "Anyone can do it. The only things that you need are an iron will and a goal that you really want to achieve."

You must have seen Internet clips of Dikul's 1,014-pound deadlift. How did he do it? His method is a unique blend of Paul Anderson's training and isolation bodybuilding.

Dikul believes in taking it slow and not rushing the results. His approach to powerlifting training is thorough, scientific, and individualized. He keeps his own routines close to his chest because, he says, they are not right for other people. "My training session takes up three and a half hours—it is too long. It is a very long workout with very large loads. I squeeze every drop out of myself and leave the gym barely alive. It is not correct. I am not advising this to anybody because you could easily destroy your body."

Hard as he pushes, Dikul still keeps something in the bank. "I am a circus strongman and I must have a strength reserve. I must have a reserve because if I give it all in the arena... I could run into an extreme situation when I would need a reserve and it would be gone. That must not happen."

Dikul uses a simple technique to spot systemic overtraining and nip it in the bud. Count your heart rate in the morning, before you get out of bed. Sit up and count again. Then stand up and do it. The difference between each consecutive reading should not exceed 10 BPM. If it does, lower the intensity in the next workout. Dikul insists that no one—not even experienced strength athletes—should pursue pure strength specialization for more than 30-40 days in a row.

Dikul stresses psychological preparation to records. That means two things. One is psyching. The other is treating all weights the same. "I approach heavy and light weights the same way. After all, it is light weights that get us injured more often because we approach them half-hearted."



What Dikul does reveal about his training is worth its weight in gold and can be applied by any intelligent and experienced powerlifter.

*"I train five times a week, dedicating two of the workouts to small muscle groups. I isolate the base, large muscle groups and work the small, assisting muscles. Thus I not only grow the main large muscles but also the small, supporting ones. Many athletes don't like them and say, 'They don't help any!' It is a mistake. These exercises give me reserve strength. Yes, these exercises are hard because the appropriate muscles are poorly developed. Of course here you will not pull a large weight, and everyone of course wants a big weight at once. No need to be embarrassed about training with small weights. These exercises enable me to build this 'reserve strength' by blocking the main muscles."*

Dikul's 'split' is not unusual for Russian athletes. "The experience of Soviet weightlifters shows that the greatest effect in strength development is reached when sessions with heaviest loads are done every other day (3 days a week). On other days athletes perform additional special strength exercises, as well as technique exercises, practically training daily." (Ozolin, 2006)

The above arrangement is possible due to the phenomenon of *fatigue specificity*. Say, you have trained back extensions hard. The day after, your back may not be up for more hypers but it will do alright with deadlifts or good mornings. The same muscles may be worked, but because the exercise is different you will be able to do it almost—not quite, but close—as if you were totally fresh. Endurance athletes get it. A triathlete ran hard yesterday. Today his legs are shot. Way too shot to run, but tolerable for biking. A leg exercise again but a different one. Understanding the phenomenon of fatigue specificity enables one to progress faster because you can train more often and still recover.

Louie Simmons knows. He loves telling the story of an NFL strength coach who asked a Soviet coach from another team sport what he had his players do the day after the game. "Work their legs," was the answer. "And the day after that?"—"Work their legs." What about the next day?" The answer did not change and the coach explained that you could train daily as long as you used different exercises. This is 'fatigue specificity', Comrade!

The WSB approach to isolation exercises is not that different from Dikul's. Simmons recommends training a lagging muscle group the day after practicing the primary lift, "...first decide which muscle group is failing you. Then work that group and only that group on the day after your regular workout. For example, if your delts are lagging, do delt raises only, not pressing. Pressing of any kind requires other muscle groups, such as the triceps and pecs, to be worked, and these may be receiving too much work already."

"This will not overtrain you," promises the Westside mastermind. "Rather it will bring up the weak link in line with your other muscle groups." Louie adds that these workouts will also aid in restoration and building work capacity. "One can mix and match two or three special exercises in a short, intense workout lasting no more than 30min." In the WSB template, that adds up to two such workouts a week for the upper body and two for the lower body. But you don't have to train Westside to take advantage of this approach.

Dikul is a big believer in cable exercises because they hit the chosen muscles with laser like precision. He has even designed his own cable stack. *"I am very well versed in anatomy and biomechanics. I separate every movement into the subgroups of the involved muscles. Not a single weightlifter or powerlifter does that. For instance about 46 muscle groups are involved in the deadlift. About 46! And no matter how you train, some muscles [or the neural pathways—P.T.] develop very well and others don't because they don't receive the overload that they need. Some guys who can lift big weights in the powerlifts have come to me to train. After just two-three workouts they can barely walk. Even though I have not prescribed them big weights but had them engage assisting muscles which are involved in the lift but do not directly participate. This happens because the large and strong muscle group takes over the major load and the rest of the muscles don't work as intensely."*

It is interesting that for all his emphasis on bodybuilding exercises Dikul categorically refuses to "eat his way through the sticking point" and discourages other athletes from doing so. "I say that you don't need to pursue large mass to lift huge weights but few people believe me." Another great Russian strength athlete who holds the same view is Yuri Vlasov.

When Dikul was asked what was the secret of his strength, he offered two secrets. The first secret is to train all the muscle groups—including the small ones—on separate days from the powerlifts (two out of five weekly workouts). The second secret is to practice harder, 'out of the groove', powerlift variations.

"...[For my competition technique] I try to optimally position the center of gravity of, say, the barbell closer to the central axis of my body... But to do this I practice every lift with a large displacement from this axis, in other words first I build strength, and only then do I drill the technique to perfection."



This is a technique that goes way back to Paul Anderson, a man who gained great respect in Russia. Paul Anderson wrote, "...there is no one who can't deadlift more flat-footed than with heels.... Now operating under the assumption that being flat-footed is an advantage, let's take a great disadvantage... with the heels elevated. I would like for you to elevate your heels just as high as possible and still be able to put weight on the entire foot. Maybe by wearing a shoe with a regular heel and putting it on top of a 2x4 there will be enough elevation... This is going to put a unique strain on the entire deadlift movement, and should help overcome the sticking point that you personally have." Note that Big Paul wore boots when he did these pulls; Chucks might not cut it.

You might ask, why am I talking about Paul Anderson when the article is about Valentin Dikul?—Because Dikul does not advertise his exercise selections. So I have decided to fill in the blanks with a few 'out of the groove' exercises from other respected sources. Be very clear that these are very advanced exercises, inherently unsafe because they make you teeter on the brink between bad leverage and injury.



Here is another unique drill of this kind that Anderson invented and used with great success to build his deadlift. It is a variation of the good morning.

"The first time I tried the 'good morning' exercise... I was very satisfied. I started out with a weight that was ridiculously light... I did these lifts as strictly as possible for quite awhile and certainly did receive great [deadlift, clean, and snatch] results from it.

"Overly delighted with this particular assistance exercise, I continued doing it and even found I was getting much, much stronger in it, but then my progress in the [pulls] ... stopped advancing... I found that even though I was continuing to perform the lift with stiff knees, and bending the trunk of the body at least into a parallel position to the floor before rising again, there was indeed something different. I had, without knowing or planning it learned to cheat on the movement. I was counterbalancing the lift by extending my hips backward, which accounted for lifting more weight with less results."

Instead of folding forward, Big Paul started doing what we know today as the 'power good morning'. A good exercise, but not one you should choose if you want to work at a leverage disadvantage. A genius that he was, Anderson came up with the following solution.

"Make a wide belt that can be pulled up just above the knee on each thigh," writes the Wonder of Nature, as Russians call Big Paul. "This belt can be made of leather or some type of webbing, and should be about five or six inches wide. On each belt there should be a ring sewn in, or attached in some way just about midway of the width. By attaching a rope, chain, etc. to each of the rings and joining it to a single rope about three feet from the rings you will have yourself an apparatus that will help you perform the 'good morning' exercise in a strict manner. Attach the rope that the two original ropes or chains are fastened on to something stable that is just a little higher than the position that the belts are in around the thighs. When taking the [barbell]... from the squat racks, have enough length on the rope so that you may step forward into your stance for the movement and tighten the rope. Lean forward, do the exercise with tension being on the thigh belts. Keep a good footing so that you will not be apt to swing onto the belts and that way fall forward. To better explain, keep a great deal of weight on your feet and only use the belts as stabilizers to lean against and not swing all your weight on. This can be best done by using a very light weight for experimenting until you get it down pat."

I will wrap up with two more powerful 'out of the groove' drills, one American and one Russian. The first one is the seated Zercher. A few years ago I taught a seminar with Louie Simmons and he showed it to me. A fine exercise for a conventional puller. Sit on a high box with a bar held in the crooks of your elbows. Rock forward until it feels like a DL running forward from the groove, lift your butt, then go back down. No need to stand up all the way.

The second is the SQ/GM combo by G. Khodosevich, Distinguished Coach of Russia. Use your normal squat stance. First, fold forward until your torso is parallel to the deck. Second, drop your hips into a squat—without letting the bar move. The bar acts as the pivot point. Third, bring the hips up so you are in the good morning position again. The bar still does not move. Fourth, stand up.

## THREE SECRETS OF DIKUL'S STRENGTH

1. GET STRONG IN YOUR POWERLIFTS BY TRAINING THEM WITH ARTIFICIALLY COMPROMISED LEVERAGE. CLOSER TO THE MEET PERFECT YOUR COMPETITION TECHNIQUE.
2. WORK THE POWERLIFTS OR THEIR VARIATIONS THREE TIMES A WEEK.
3. DO BODYBUILDING TYPE ASSISTANCE EXERCISES TWICE A WEEK.

There is a joke going around about Dikul in Russia: "Dikul got disqualified! They X-rayed him and found a hoist." Try his techniques, perhaps the same could be said about you some day.

# Train Light, Compete Heavy

"I was not getting how you could increase your results after training with practically the same weights for two months," exclaimed Sergey Pavlov, Master of Sports before he tried training the Sheyko way. He gave it a shot but was still incredulous. "The Sheyko competition cycle went smooth like a walk in the park, no strains, no sprains. After the workouts I hardly felt any fatigue." Then he added 35kg to his lagging bench press in two years and suddenly got it.

Frequent powerlifting technique practice will make you stronger and will keep making you stronger. You will not only be able to lift more weight by optimizing your biomechanics, your muscles will learn to contract harder. In other words, both your inter-muscular and intra-muscular coordination will improve. And keep improving, even if you are at the top of the sport.

## HOW TO MAKE YOUR MUSCLES JUMP TO YOUR COMMANDS

"There is a difference between lifting more and actually getting stronger".

This quip by Arthur B. Jones, who benched 563 pounds raw in the 242-pound class at the AAU Worlds, highlights the two ways of getting stronger through training the nervous system. One is improving inter-muscular coordination, what people usually think of as a sport's 'skill'. The other is intra-muscular coordination, or the ability to fire individual muscles more intensely.

There are misconceptions about both. In the West, inter-muscular coordination is believed to be good only for the first few weeks of a beginner's strength training. Consider how absurd this statement would be if it were applied to another sport. You can't get better at the tennis serve after two months?! Soviets have proved that the lifter's skill will continue improving for years and even decades all the way to the World's.

If you are no longer adding polish to your technique, you either are not getting good coaching, not paying attention, or simply not practicing enough. Pavlov—the powerlifter, not the scientist who experimented with dogs—continues: "training on this methodology really polishes the technique. I will honestly say that I don't remember at all how I was lifting the bar in competition, I was not 'feeling' the bench press as I always did in training." He adds that not only were all the attempts smooth, there was not even a hint of his old technical flaw, an uneven extension. "The key here is, Sheyko style workouts do not push you to your limit, when you are just thinking whether you will LIFT the bar, and there is no time to think about HOW TO LIFT it. Here there was always an opportunity to search for the optimal style of lifting even during the set. And each workout clocks 30 to 60 such lifts. And there are four such workouts a week. So the skill is strengthened very well."

As for the intra-muscular coordination, there is more to the story than pushing on the gas and laying off the brake. The sum of all excitatory (push!) and inhibitory (stop!) neural input into the motoneuron is referred to as the *H-reflex* (Leonard, 1998). But did you know that the motoneuron also has a say in how to respond to all this yelling?

Soviet researcher Stepanov (1959) studied how the EMG of weightlifters' muscles changed over time. He learned that as the athletes got stronger in the press, the same degree of tension generated by the muscles was accompanied by lower electrical activity. In other words, it took less mental effort to lift the same amount of weight.

Later research clarified that repetitive stimulation of a motoneuron increases the strength of its synaptic connections and may even form new synapses (for references see Leonard, 1998). The process is called *synaptic facilitation* or, in lifter speak, 'grease the groove'.

The above seems obvious, but the implications are profound. You have just added one more means of getting stronger! By frequently practicing your competition technique with a moderate weight you will be making your muscles more and more responsive to the central command. So in competition you will be trying as hard as usual but lifting more!

## HOW HEAVY?

I used to believe that the bulk of your GTG work should be done in the 70-80% 1RM range, heavy enough to notice, yet light enough to pay attention to the technique and not need to psyche up. Since I have met Phil Workman, I believe that much lighter weights might do the trick. The Texas PL champ took his pull from 605 to 675 drug free, pulling 80-100 reps a week with weights between a quarter and a third of his max.

I will duck the question about the optimal weights that would work for this type of training by making the broad statement that you must experiment. One thought: if Workman was not squatting heavy once a week, I doubt he would have seen the same results with such light pulls.

## THE PRINCIPLE OF DYNAMIC CORRESPONDENCE

One of the many things Phil Workman got right was not exploding his light pulls. Right for a grinder that is.

You have got to make sure you are greasing the right groove. In this context the meaning of a 'groove' is broader than just the spatial characteristics of the lift—the specific bar path and body positions. The temporary characteristics such as velocity and acceleration are just as important. According to Prof. Verkhoshansky, special physical preparation must satisfy the requirements of the *principle of dynamic correspondence*, or have similarity to the competition exercises in the following parameters (quote):

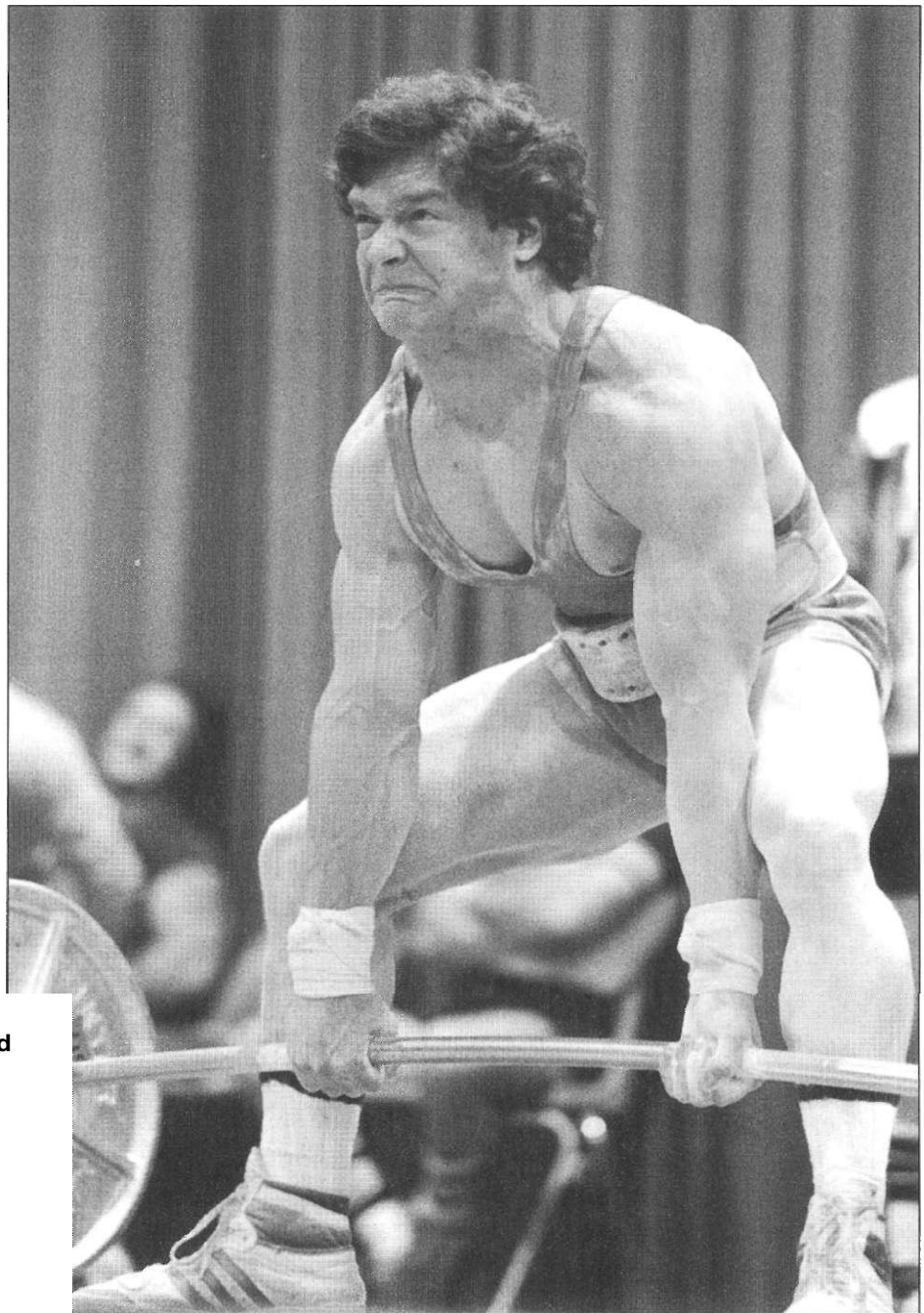
- The amplitude and direction of movement
- The accentuated region of force production
- The dynamics of the effort (including maximum force)
- The rate and time of maximum force production
- The regime of muscular work

Prof. Zatsiorsky, a former consultant to the Soviet National Weightlifting Olympic Team, adds that one rep max strength can only be effectively built when the kinematics of your training lift—that is, its velocity and acceleration—match that of the max lift.

"Slow movement of the barbell trigger different changes [from fast lifting] in the central nervous system and the muscular apparatus," reported prominent Soviet researcher and weightlifting coach Falameyev, who stressed the importance of lifting the weights slowly if strength was the goal. "The muscles adapt to slow, smooth movement and static tension. One must remember the high specificity of training effect: the organism adapts its functions to the activity it is performing."

According to Basmajian (1978) and Siff, fast versus slow performance of an identical movement might even engage different muscle groups. For example, both slow and fast arm curls recruit the biceps and the brachialis, but in fast curls the brachioradialis is involved as well.

If you are a grinder, by now it should be obvious that the right groove will only be 'greased' if you don't explode your weights but make the timing of every training rep, even with light weights, look like an all out single. Otherwise you would be running a different motor program and facilitating a wrong pathway.



**Ed Coan makes warmups and records look the same.**

*Photo courtesy Powerlifting USA*

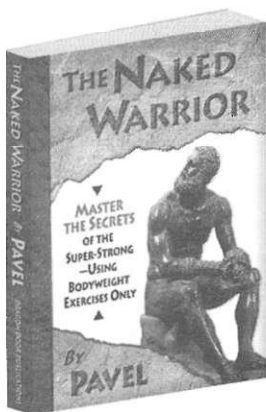
Watch the Russian IPF lifters in the warm-up room and you will know what I mean. Or listen to German powerlifter Stephan Korte: "I recommend what I call the 'energy saving method'... It simply means that you should only put in as much energy for a particular lift as you need to. Ed Coan is a perfect example of this method... his warm-ups look always the same: they look almost as heavy as his biggest squat in competition... The ESM method will allow you to save enough energy [for high volume work]... and build your confidence for the heavier weights. By using only half of your energy and power for a set with 64 percent of your maximum you will be building a 'mental reserve'. This 'mental reserve' will lead to developing higher confidence for the weights in the 80-95 percent range."

I believe there is another aspect to this confidence. When you are used to lifting the bar fast in training and suddenly the competition attempt is moving slower than you are accustomed to, you might panic. It is not going to happen when all your training lifts are fourth attempt slow.

It must be pointed out that lifting submaximal weights at the **1RM** tempo does not mean putting on artificial brakes any more than it does in driving your car slow!

I suspect there is no space for explosive training in a grinder's training at all. At the most a short stint for the sake of 'diversion', as Marty Gallagher would say, such as Smolov's 'switching cycle', and that is about it. As Verkhoshansky and Siff put it, "...the work regimes of strength with primarily slow movements and speed-strength exercises (using inherently fast movements) are essentially different with respect to the physiological mechanisms and the manner in which energy resources are used."

## PRAXIS



You need to structure your training in a way where you can get as much quality practice as possible without burning out. To quote Prof. Vladimir Zatsiorsky, "do as much [quality] work as possible while being as fresh as possible."

One option is to follow an existing high volume/high frequency/moderate intensity 'strength practice' program such as Sheyko's, my 'GTG' from *The Naked Warrior*, or Korte's '3x3'. The latter will have you deadlift for eight sets of five with roughly two thirds of your max three times a week in the preparatory period.

Or you could simply add light days or even mini practice sessions to you existing regimen. How about starting and finishing every workout with a couple of grooving sets of your weakest lift? Some reps and some singles.

The 'strength practice' approach gives the 'grinders' an unfair advantage over the 'exploders'. How easy is it to pull a 65% single with compensatory acceleration?—It does not seem that hard, it feels great, in fact. But it does demand a good deal of excitation. And if you try to do many explosive lifts, even with light weights, over a period of a week, your adrenals will not like it

unless you have a Bulgarian pharmacy at your disposal. Grind style lifts, on the other hand, require attention and precision, but not excitement—so you can save all your adrenaline for the meet. You can keep pulling **65%** singles all day long and, if you rest enough between the sets, it will be the skin on your palms that will give out first.

Why are the Russian IPF champs so strong? You could dismiss their records by saying they have better drugs, or you could admit that they practice more. Their coach Sheyko is resolute: "He who trains more—lifts more."

# Ukrainian Powerlifting Secrets, Or What it Took to Break a Twenty-Three Year Old World Record

With a superhuman effort Vitaly Papazov finished his last pull. Kaz's untouchable twenty-three year old IPF total record finally fell. The Ukrainian champion fell to his knees. His coach Leonid Kotendzha ran out on the platform and broke into tears.

Leonid Kotendzha, Distinguished Coach of the Ukraine, started out in Olympic weightlifting as an athlete and a coach. He made a Master of Sports total, then got hooked on powerlifting. The next year, in 1988, he became the first Soviet Master of Sports in PL. Unlike the rest of the early Soviet PLers who came from WL, he had a good bench. Soon Kotendzha the coach also changed sports and started training powerlifters.

Not surprisingly, Leonid's training methods have evolved from WL. Or 'suffered out empirically', to quote the man himself. Along the way he added a few wrinkles borrowed from American powerlifters. The Ukrainian coach and Rob Lawrence would have hit it off. Rob says, "I need specificity to get strong and variety to keep me sane." Leonid says, "After a long search I have concluded that it was not necessary to completely change exercises every week. In principle, it is even possible to design a weekly plan for elite athletes and follow it [indefinitely by just] varying the load. However, there is one 'if'—no one will be able to stand it. YOU GET BORED. Which is why everything needs to be changed periodically."

So Leonid keeps the exercises the same for the duration of a particular phase of preparation and changes them for the next phase. One thing never changes: all three powerlifts must be trained

twice a week. "But what kind of presses, squats, and pulls—that is another question," adds Kotenzha. He selects appropriate variations according to the athlete's weaknesses and the particular preparation phase. For instance, speed benches fit into the competition period much better than into the foundation period.

Kotenzha favors the cycling concept but not in the traditional American interpretation of a linear buildup. He believes that an athlete must bag some serious volume, 800-900 lifts in each of the three competition lifts in the 60-77.5% intensity zone, during his preparatory period. Papazov sometimes does 5/5 with 75% 1RM in both the SQ and the BP on the same day, so Kotenzha is not kidding. In the summer he does not cycle at all but tries alternative training methods. The following excerpt from Papazov's training plan that culminated in his breaking Kaz's legendary record will show you how Kotenzha does his magic.

## TWO TIME IPF WORLD CHAMPION VITALY PAPAZOV'S TRAINING PLAN FOR THE UKRAINIAN NATIONALS

A few explanations first.

It is worth reminding that most ex-Soviet PL coaches prescribe percentages in assistance exercises based on the competition lifts' maxes rather than on the maxes in these exercises. For instance, if the push press calls for 35%, it means 35% of the competition style bench. It is interesting that Kotenzha bases his percentages on raw maxes. By the way, his lifters rarely wear gear in training—which is why their raw maxes are not that far behind their geared maxes. In Kotenzha's opinion, all equipment but wrist wraps and knee wraps ought to be banned in powerlifting competition.

The good mornings' percentages are based on the competition DL max. GMs are done with a minimal knee bend (tailored to individual comfort) down to a 70-80 degree inclination of the trunk. In half good mornings the forward bend angle is the same but the knees flex a lot more, almost as much as in the squat. Kotenzha picked up this exercise watching his hero David Rigert. The latter finished his GMs with a push press behind the neck, something you don't need.

In the Soviet weightlifting tradition Kotenzha's programs feature running and swimming. He has added conditioning at certain periods of preparation once he noticed that some of his athletes sucked wind during low intensity, high volume workouts. Of course, to paraphrase Dr. Randall Strossen, this 'running' would impress a runner about as much as the 'lifting' runners do would impress a lifter. But that is the way it is supposed to be. A Pler does conditioning, be it running, swimming, or kettlebells, not to excel at these disciplines but to gain endurance for hard lifting and long meets.



Like many of his Eastern European colleagues, Kotendzha prescribes powerlift variations with pauses and varied speeds. Some of them need to be explained.

### **BP WITH 3 STOPS ON THE WAY DOWN**

On descent, pause at your sticking point, then 2-3 inches lower, and finally on your chest.

### **BP WITH 3 STOPS ON THE WAY UP**

Make the same stops, but on the way up.

### **BP WITH 1, 2, 3, 4 SEC PAUSES**

Pause on your chest for 1 sec on your first rep, 2 on your second, etc. Obviously, if a set calls for a double, you will not make it to 4 sec.

### **BP WITH 3, 2, 1 SEC PAUSES**

Start with a 3 sec pause. It is not clear what to do with a set of four reps. Perhaps add another 1 sec pause.

### **3 STOP DL + SPEED DL + NEGATIVE**

Start pulling and stop one inch off the platform. Then stop just below the knees. Then at the sticking spot (assuming the top end is your problem). Don't lock out but lower the bar. After a pause on the platform pull explosively in your competition style. Take 3 to 5 sec to lower the barbell. That was one rep.

If the plan reads (2+2+1), it means two reps with stops followed by two speed pulls and chased down with one negative.

### **DL FROM 30CM—15CM—0CM (1'—0.5'—0')**

Put each end of the barbell on two half-foot tall blocks stacked on top of each other. Russians prefer wooden or rubber blocks to power racks because the former are easier on the hands and the bar is not bent at the beginning of the pull. Plus the deads feel more real.

The athlete begins his pulls. Once he has lifted his last prescribed rep from the higher elevation, two assistants immediately pull out one block from each side. The lifter now pulls with the plates half a foot, instead of one foot, off the deck.

The assistants remove the remaining blocks and the pulls are now done off the platform.

'50% x 4' means four pulls from 12", four pulls from 6", and four pulls from the platform done back to back. If the reps are specified in brackets, they refer to each stage. For instance, '85% x (2+2+1)' calls for two pulls off high boxes, two pulls off low boxes, and one pull off the floor.

## **DL FROM PLATFORM + HANG DL**

Do the specified number of reps from a dead stop on the platform and then pull without setting the bar down. E.g., '75% x (2+4)/3' means two 'dead' pulls and four hang pulls. Repeat for three sets.

## **WEIGHTED JUMP**

The coach does not specify the type of jump his charge practices but it is mostly likely the jump from a parallel squat with a kettlebell hanging in front of the lifter. 'X' refers to the main training weight. Papazov usually jumps with 20-30kg.

# **ARE JUMPS NECESSARY FOR POWERLIFTERS?**

Answers Boris Sheyko, Distinguished Coach of Russia: "Standing long jumps, jumps up on a pommel horse [box jumps], jumps from a squat holding a kettlebell, depth jumps (the impact method), etc. help developing absolute and explosive leg strength. But you must consider an increased risk of injury with these exercises."

The following two exercises from Kotenzha and Papazov's arsenal are not a part of the following plan, but I am sure you would like to know them.

## **SPEED SQUAT**

Wear knee wraps with weights heavier than 70%. Drop into a low, below legal squat, and bounce off as weightlifters do.

## **VARIED WEIGHT SQUAT**

Kotenzha might prescribe something like this to Papazov: 70% + 15% -10% x (2+1+2). That means two reps with 70%. Assistants immediately add 15% and the champion does a single. 10% are instantly removed and he finishes with a double.

## WEEK 1

### FOUNDATION PERIOD

#### MONDAY

1. BP—50% x 4, 60% x 4, 70% x 4, 75% x 4/4
2. Narrow grip BP—50% x 4/4
3. BP—a light weight x 8/4
4. Board press—85% x 4/4
5. Good morning—30% x 6/4
6. SQ—50% x 4, 60% x 4, 70% x 4, 75% x 4/4
7. Dip with a light weight—8/4

#### TUESDAY

1. BP with 3 stops on the way down—50% x 3, 60% x 3, 70% x 3, 75% x 3/3
2. Push press—30-40% x 3/4
3. Sumo SQ—50% x 5/5
4. Extended DL—30% x 6/5
5. Weighted jump—(X-10)% x 5, X% x 5/5

#### WEDNESDAY

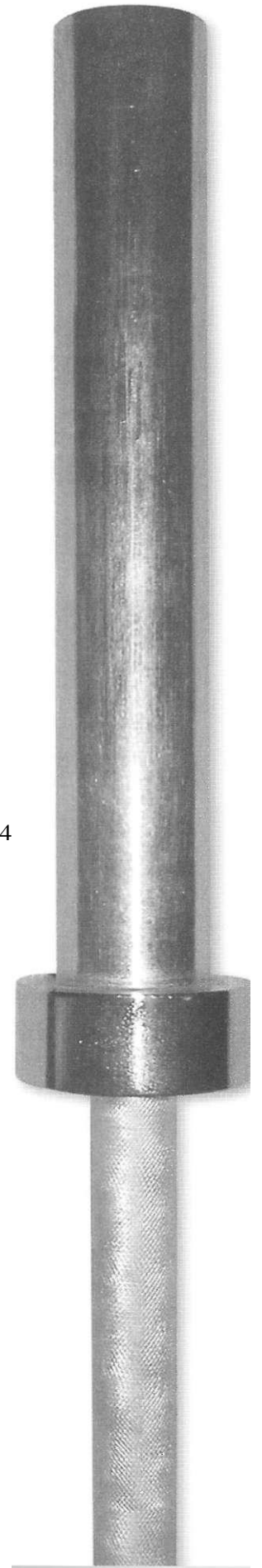
1. BP—50% x 4, 60% x 4, 70% x 4, 72.5% x 4/2, 75% x 3/2, 77.5% x 2/2
2. Medium grip BP—55% x 4/4
3. Fly —7/4
4. 3 stop DL + speed DL + negative—50% x 2, 60% x 2, 65% x 1, 72.5% x 2/4
5. BoxSQ—55% x 4/4
6. Reverse grip BP—50% x 4, 60% x 4, 65% x 4/3

#### THURSDAY

1. Running—400m/2 in 10min
2. Sauna, massage—2 hours

#### FRIDAY

1. 45 degree incline BP—40% x 4, 50% x 4, 60% x 4, 65% x 3/4
2. BP with 3 stops on the way up—60% x 3/4
3. Decline fly—8/4
4. SQ—50% x 4, 60% x 4, 70% x 4, 77.5% x 4/4
5. Half good morning—30-40% x 5/4
6. French press with a light weight—8/4
7. Biceps curl with a light weight—8/4



**SATURDAY**

1. BP with 1, 2, 3, 4 sec pauses—50% x 4, 60% x 4, 65% x 3/2, 70% x 2/2, 75% x 2/2, 80% x 1/2
2. Board press—90% x 3/4
3. Extended DL—50% x 4, 60% x 4, 70% x 4/4
4. Dip—7/5
5. Bodybuilding

## WEEK 2

### FOUNDATION PERIOD

**MONDAY**

1. Fly—40% x 4, 50% x 4, 60% x 4, 70% x 4/4
2. Narrow grip BP—50% x 4/4
3. BP with a light weight—8/4
4. Board press—80% x 5/4
5. Good morning—30% x 6/4
6. SQ—40% x 4, 50% x 4, 60% x 4, 70% x 4/4
7. Dip—8/4

**TUESDAY**

1. BP with 3 stops on the way down—40% x 3, 50% x 3, 60% x 3, 70% x 3/4
2. Push press—35% x 4/5
3. Sumo SQ—50% x 5/5
4. Extended DL—30% x 6/5
5. Weighted jump—(X-20)% x 6, (X-10)% x 5/3

**WEDNESDAY**

1. BP—40% x 4, 50% x 4, 60% x 4, 65% x 4/2, 70% x 2/2, 75% x 3/2
2. Medium grip BP—50% x 5/4
3. Fly with light weights—8/4
4. 3 stop DL + speed DL + negative—50% x (2+2+1), 60% x (2+2+1), 70% x (2+2+1)/4
5. Box SQ—50% x 4/4
6. Reverse grip BP—50% x 5, 60% x 4/4

**THURSDAY**

1. Running—400m/3 in 20min
2. Sauna, massage—2 hours

**FRIDAY**

1. 45 degree incline BP—40% x 4, 50% x 4, 60% x 3/4
2. BP with 3 stops on the way up—55% x 3/4
3. 45 degree decline fly with light weights—8/4
4. SQ—50% x 4, 60% x 4, 70% x 4, 75% x 5/4
5. Half good morning—30% x 5/4, 40% x 5/4
6. French press—8/4
7. One-arm dumbbell biceps curl—7/4

**SATURDAY**

1. BP with 1, 2, 3, 4 sec pauses—50% x 4, 60% x 4, 75% x 3/2, 70% x 3/2, 65% x 3/2, 60% x 3/2
2. Board press—80% x 4/4
3. Extended DL—50% x 5, 60% x 5, 65% x 5/4
4. Dip with a light weight—8/4
5. Bodybuilding

**WEEK 3  
FOUNDATION PERIOD****MONDAY**

1. Fly—50% x 4, 60% x 4, 70% x 4, 80% x 3/5
2. Narrow grip BP—55% x 4/5
3. BP with a light weight—7/5
4. Board press—90% x 3/4
5. Good morning—6/4
6. SQ—50% x 4, 60% x 4, 70% x 4, 77.5% x 4/4
7. Dip—7/4

**TUESDAY**

1. BP with 3 stops on the way down—50% x 3, 60% x 3, 70% x 3, 77.5% x 3/3
2. Push press—30% x 3, 40% x 3, 45% x 3/3
3. Sumo SQ—50% x 5/2, 60% x 4/2
4. Extended DL—35% x 5/5
5. Weighted jump—(X-10)% x 5, X% x 5/3

## WEDNESDAY

1. BP—50% x 4, 60% x 4, 70% x 4, 72.5% x 4/2, 77.5% x 3/2, 82.5% x 2/2
2. Medium grip BP -60% x 4/4
3. Fly—7/2 with medium weights, 6RM/2
4. 3 stop DL + speed DL + negative -50% x (2+2+1), 60% x (2+2+1), 65% x (2+2+1), 72% x (2+2+1)/4
5. BoxSQ—60% x 4/4
6. Reverse grip BP—50% x 4, 60% x 4, 65% x 3/4

## THURSDAY

1. Running—1,000m in 10min
2. Sauna, massage—2 hours

## FRIDAY

1. 45 degree incline BP—40% x 4, 50% x 4, 60% x 4, 65% x 3/4
2. BP with 3 stops on the way up—65% x 3/4
3. 45 degree decline fly—7/4
4. SQ—50% x 4, 60% x 4, 70% x 4, 77.5% x 5/4
5. Half good morning—30-40% x 5/4
6. French press—7/4
7. Biceps curl with a light weight—8/4

## SATURDAY

1. BP with 1, 2, 3, 4 sec pauses—50% x 4, 60% x 4, 75% x (3+3+3+2)/3, 70% x (3+3+3+2)/3, 65% x (3+3+3+2)/3, 60% x (3+3+3+2)/3
2. Board press—90% x 3/3
3. Extended DL—50% x 4, 60% x 4, 70% x 4, 77.5% x 4/4
4. Dip—8/2 with a light weight, 7/2 with a medium weight, 6RM/1
5. Bodybuilding



## WEEK 1

### MONDAY

1. BP—50% x 5, 60% x 5, 70% x 5, 75% x 5/5
2. Narrow grip BP—50% x 5/5
3. Fly with light weights—8/5
4. Half good morning—30% x 6, 35% x 5/5
5. SQ—50% x 5, 60% x 5, 70% x 5, 75% x 5/5
6. Pullover with a light weight—8/4

### TUESDAY

1. Board press—50% x 4, 60% x 4, 70% x 4, 80% x 4, 85% x 4/4
2. Military press—30% x 4/5
3. Sumo SQ—40% x 5/5
4. Weighted jump—(X-10)% x 5, X% x 5/5

### WEDNESDAY

1. Fly with light weights—8/5
2. Dips with a medium weight—7/3
3. BP—50% x 4, 60% x 4, 70% x 4/2, 80% x 4/2
4. DL from 1'-0.5'-0'—50% x 4, 60% x 4, 70% x 4, 85% x (2+2+1)/5
5. Leg press—60% x 5, 70% x 5/4
6. Decline fly with medium weights—7/4

### THURSDAY

1. Sauna, massage—2 hours

### FRIDAY

2. Incline BP—50% x 5, 60% x 5/5
3. Decline fly with light weights—8/4
4. Reverse grip BP—60% x 4, 70% x 4/4
5. SQ—50% x 3, 60% x 3, 70% x 3, 80% x 3, 85% x 2, 82% x 3, 80% x 4, 77% x 5, 75% x 6
6. Extended DL—30% x 6/5
7. Bodyweight box jump to a 100cm height—5/5

## SATURDAY

1. BP with 3, 2, 1 sec pauses—50% x 4, 60% x 4, 70% x 3/2, 75% x 3/2, 80% x 3/2
2. Board press—90% x 3/4
3. DL from platform + hang DL—50% x (2+2), 60% x (2+2), 70% x (2+2), 80% x (2+2)/4
4. Leg press—60% x 5, 75% x 5/4
5. Dip with a medium weight—7/4

## WEEK 2 PREPARATORY PERIOD

### MONDAY

1. BP—50% x 5, 60% x 5, 70% x 5, 77% x 4/5
2. Narrow grip BP—50% x 4/5
3. Fly with medium weights—7/5
4. Half good morning—30% x 6, 40% x 5/4
5. SQ—50% x 5, 60% x 5, 70% x 5, 77% x 4/5
6. Pullover with a light weight—7/4

### TUESDAY

1. Board press—50% x 4, 60% x 4, 70% x 4, 80% x 4, 85% x 4/4
2. Military press—30% x 4/2, 35% x 3/3
3. Sumo SQ—30-40% x 5/5
4. Weighted jump—(X-10)% x 5, X% x 5/4

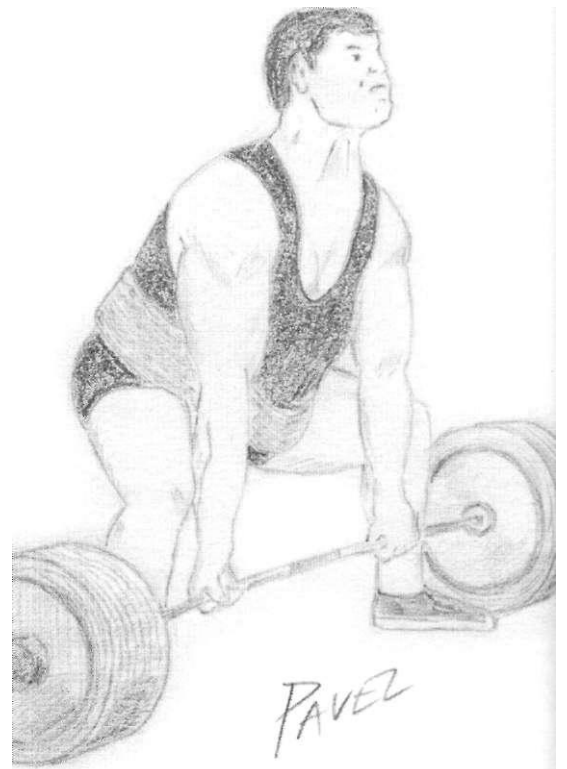
### WEDNESDAY

1. Fly with light weights—7/4
2. Dips—6/5
3. BP—50% x 5, 60% x 4/2, 70% x 4/2, 80% x 4/2
4. DL from 1'-0.5'-0'—50% x 3, 60% x 3, 70% x 3, 85% x 1/5, 85% x 2/5, 85% x 1/5
5. Leg press—60% x 5/4
6. Decline fly—8/5

### THURSDAY

1. Sauna, massage—2 hours

**LIFTOFF! Ukrainian Vitaly Papazov is about to take down Kaz's world Record.**





**FRIDAY**

1. Incline BP—50% x 5/2, 60% x 5/3
2. Decline fly with light weights—8/4
3. Reverse grip BP—65% x 4/5
4. SQ—50% x 4, 60% x 4, 70% x 4, 75% x 4/3, 80% x 3/3
5. Extended DL—30% x 6/4
6. Bodyweight box jump to a 100cm height—5/5

**SATURDAY**

1. BP with a 3, 2, 1 sec pause—50% x 4, 60% x 4, 70% x 3/2, 75% x 3/2, 80% x 3/2
2. Board press—90% x 3/4
3. DL from platform + hang DL—50% x (2+2), 60% x (2+2), 70% x (2+2), 77% x (2+2)/4
4. Leg press—60% x 5, 75% x 5/4
5. Dip—7/2 with a medium weight, 6RM/2

**WEEK 3****PREPARATORY PERIOD****MONDAY**

1. BP—50% x 5, 60% x 5, 75% x 5/2, 80% x 4/3
2. Narrow grip BP—55% x 4/5
3. Fly with medium weights—7/4
4. Half good morning—30% x 6, 40% x 5/4
5. SQ—50% x 5, 60% x 5, 75% x 4/2, 80% x 3/3
6. Pullover with a medium weight—7/4

**TUESDAY**

1. Board press—50% x 4, 60% x 4, 70% x 4, 80% x 4, 90% x 3/4
2. Military press—30% x 4, 35% x 3/4
3. Sumo SQ—30-40% x 5/5
4. Weighted jump—(X-10)% x 5, X% x 5/2, (X+10)% x 5

**WEDNESDAY**

1. Fly with light weights—8/4
2. Dips with a medium weight—7/3
3. BP—50% x 3, 60% x 4, 70% x 5, 75% x 6/5
4. DL from 1'-0.5'-0'—50% x 4, 60% x 4, 70% x 4, 90% x (1+1+2)/4
5. Leg press—60% x 5, 75% x 5/4
6. Decline fly with medium weights—7/4

**THURSDAY**

1. Sauna, massage—2 hours

**FRIDAY**

1. Incline BP—50% x 5, 60% x 5/2, 65% x 4/3
2. Decline fly with light weights—8/4
3. Reverse grip BP—60% x 4, 70% x 4/4
4. SQ—50% x 4, 60% x 4, 70% x 5/2, 75% x 4/2, 80% x 3/2
5. Extended DL—30% x 6/4
7. Bodyweight box jump to a 100cm height—5/5

**SATURDAY**

1. BP with a 3, 2, 1 sec pause—50% x 4, 60% x 4, 70% x 3/2, 75% x 2/3, 80% x 2/3
2. Board press—90% x 3/4
3. DL from platform + hang DL—50% x (2+2), 60% x (2+2), 70% x (2+2), 75% x (2+4)/3
4. Leg press—60% x 5, 75% x 5/4
5. Dip with a medium weight—8/2, 7/3

**WEEK 1****COMPETITION PERIOD**

(6 weeks of training between the week 3 of the preparatory period and this week are not listed)

**MONDAY**

1. Competition style BP—50% x 3, 60% x 3, 70% x 3, 80% x 2/3
2. Board press—85% x 3/3
3. Fly with medium weights—6/3
4. Competition SQ—50% x 3, 60% x 3, 70% x 3, 80% x 3/3

**TUESDAY**

Rest

**WEDNESDAY**

1. 45 degree incline BP--40% x 3, 50% x 3/4
2. Dips with a medium weight—6/3
3. Weighted jump—(X-20kg) x 4/4
4. Extended DL—30% x 5/4

**THURSDAY**

1. Sauna, massage—1.5 hours

**FRIDAY**

1. Speed BP without a pause—50% x 3, 60% x 3, 70% x 3/3
2. Fly with light weights—6/3
3. Sumo SQ—40% x 4/2, 50% x 4/2
4. One-arm dumbbell biceps curl—6/3

**SATURDAY**

1. Competition style SQ—50% x 3, 60% x 3, 70% x 3, 75% x 3/3
2. Competition style BP—50% x 3, 60% x 3, 70% x 3, 75% x 3/3
3. Dip with a light weight—6/3
4. Back extension—15% x 6/3

## WEEK 2

### COMPETITION PERIOD

**MONDAY**

Arrival to the location of the Ukrainian Championship, rest

**TUESDAY**

1. Competition style BP—50% x 3, 60% x 3, 70% x 3, 75% x 3/3
2. Fly with light weights—6/3
3. Competition style SQ—50% x 3, 60% x 3, 70% x 3/3

**WEDNESDAY**

1. Push press—20-30% x 3/4
2. Good morning—25% x 4/3
3. Weighted jump with 50% of bodyweight—4/3

**THURSDAY**

Rest

**FRIDAY**

1. SQ warmup with 30%
2. Competition BP
3. Good morning

**SATURDAY**

Rest

**SUNDAY**

The Ukrainian Nationals

SQ—400kg, 410kg, 420kg

BP—280kg, 292.5kg, 300.5kg

DL—355kg, 370kg, 382.5kg

Total—1,102.5kg at 125kg. An IPF world record.



## LEONID KOTENDZHA'S METHOD IN A NUTSHELL

- Squat, bench, and pull twice a week. That includes these lifts' variations, not only the competition style lifts.
- Stay with the same exercises for the duration of a training phase.
- Train raw most of the time.
- Cycling is good but first you must do 800-900 lifts in each of the three competition lifts in the 60-77.5% intensity zone during the preparatory period.
- Add conditioning if you get gassed on high volume days.
- Don't cycle in the summer, try something new.

You can see that Leonid Kotendzha's method is an exercise in moderation. A moderate variety of exercises—halfway between the extreme specialization of some of his Russian and Ukrainian colleagues and the smorgasbord of Westside Barbell. A moderate training frequency of twice a week for each lift—between the extremes of Gallagher (once a week) and Sheyko (four to eight times a week). A moderate volume—more than Coan and less than Smolov. A moderate intensity peaking no higher than 92.5% before the competition.

Everything about Kotendzha's system is moderate—except for the extraordinary results it produces.

# How Russian Lifters Quickly Get Back in Shape after a Layoff

It happens to all of us. Life throws you a curveball and your training is interrupted for a month. It does not matter whether it is an illness, an injury, a work crisis, or a family situation, a break after a strenuous competition, the result is the same—weakness. Jumping in where you left off is stupid and guarantees injuries. If you have the discipline and the patience you can start very light and easy and regain your form through classic cycling in two months or so. But what if you have a powerlifting meet coming up? Or patience is simply in short supply?

S. Pavlov, Master of Sports has the answer. This powerlifter has had more than his share of forced layoffs and has made a commitment to figure out how to get back into shape safely, as quickly as possible. His search brought him to Smolov's introductory squat cycle.

## SMOLOV'S Two-Week INTRODUCTORY SQUAT CYCLE

### WEEK 1

Monday 65% x 8/3, 70% x 5, 75% x 2/2, 80% x 1 (reps/sets)

Tuesday 65% x 8/3, 70% x 5, 75% x 2/2, 80% x 1

Wednesday 70% x 5/4, 75% x 3, 80% x 2/2, 90% x 1

The percentages are based on your best raw squat right before the layoff.

Thursday, Friday, Saturday lunges with the emphasis on maximal stretching of the thighs.

### WEEK 2

Monday squat with 80-85%

Wednesday squat with 80-85%

Friday squat 80-85% x 5/1

Include jumping drills jumps over various obstacles, broad jumps, box jumps. Nothing too intense like depth jumps though.

Pavlov followed the program to the tee and it worked—but not without complications. After not squatting for a month, three back-to-back days of SQs with respectable percentages killed his legs. He could not even walk and his legs swelled by over an inch, an accumulation of fluids from microtrauma. By the end of the second week the powerlifter adapted to the loads but he did not care for such abuse to his body, especially since he was not on the 'sauce'. Here is how Pavlov modified the intro program next time he was making a comeback from a layoff.

## **PAVLOV'S TWO-WEEK INTRODUCTORY SQ, BP, AND DL CYCLE**

The percentages are based on a raw max posted within a few months. Train raw.

### **WEEK 1**

**Monday** 65% x 8/3, 70% x 5, 75% x 2/2, 80% x 1

**Tuesday** 65% x 8/3, 70% x 5, 75% x 2/2, 80% x 1

**Wednesday** 70% x 5/4, 75% x 3, 80% x 2/2, 90% x 1

### **WEEK 2**

**Monday** 80-85% x 3/5

**Wednesday** 80-85% x 4/4

**Friday** 80-85% x 5/3

Use the program after a three to six week layoff. If the layoff was longer build up with easier training first.

The lifter stayed with Smolov's numbers for the first three workouts but he added a day of rest between them and he passed on the lunges and the jumps. He reasoned that bouncing around is not the safest thing to do when one is not quite in shape strength wise.

"I lifted 80-85% for five reps—and by the end of the cycle practically regained my form," sums up Pavlov. "In just two weeks." He points out that while the numbers reached are the same as delivered by Smolov, you pay for them with a lot less wear and tear on the body. Efficiency, Comrade! The powerlifter used the same plan for his squat and bench and believes it will work for the deadlift as well.

"Of course even this version of the program is no sugar. Muscles ache and you have to work hard. In short, you have to put out. But I am convinced that the result is worth it." And the result is more than getting your strength back. According to Pavlov, you have a good chance of setting a PR in competition if you follow his program.

Eight weeks from out of shape to a PR?—Sign me up!

## IF YOU ARE NOT USED TO THE RUSSIAN TRAINING FREQUENCY

Pavlov adheres to Sheyko's training methodology—famous for its high frequency of training. Still, he was smart to listen to his body and add rest. He chose to lift three times a week instead of Smolov's six. If you are not used to extreme Russian training frequency—eight bench press workouts a week, anyone?—you could take it a step further. Lift twice a week and stretch Pavlov's intro cycle to three weeks:

### WEEK 1

**Monday** 65% x 8/3, 70% x 5, 75% x 2/2, 80% x 1

**Thursday** 65% x 8/3, 70% x 5, 75% x 2/2, 80% x 1

### WEEK 2

**Monday** 70% x 5/4, 75% x 3, 80% x 2/2, 90% x 1

**Thursday** 80-85% x 3/5

### WEEK 3

**Monday** 80-85% x 4/4

**Thursday** 80-85% x 5/3



# WPC Russia, How Do They Train?

Konstantin Rogozhnikov, Head Coach WPC Team Russia, has produced many champions, world, Eurasian, European, Russian. He admits to have suffered his methodology out of years of trial and error. On himself—Rogozhnikov is a masters' world championship silver medalist—and his athletes. Regardless of your 'political' affiliation, do yourself a favor and check out how WPC Powerlifting Team Russia trains. Their system, a clever blend of Westside, power bodybuilding, and cybernetic periodization, calls for only two to three workouts a week and is easy to implement. Rogozhnikov is emphatic that it works for drug free and raw powerlifters just as well as for the WPC/WPO geared up comrades.

## THE SCHEDULE

Given Russia's tradition of high frequency training and WPC's pharmacy, you might find it surprising that Rogozhnikov takes recovery every bit as seriously as a HIT Jedi. He even capitalizes OVERTRAINING to scare you. If your progress has stopped or reversed, if your sleep is not sound and your appetite is not there (come on, what sport are you in?!), if you don't feel like training and your elbows, knees, and back are hurting units, the coach advises that you take ten days off lifting. Go on nature hikes, take a Russian steam bath, get a massage, even physical therapy. He stops short of recommending manicures, thankfully.

The coach reminds us that the training stress is not limited to the muscles; your nervous system and inner organs get hammered too, every time you lift. The first step he takes to improve recovery is training the squat and the deadlift together because the same muscle groups are involved in both lifts. Remember Fred Hatfield. Then he takes a radical tack—for a Russian—by training the SQ/DL and the BP once in six days. This adds up to two workouts one week and three the next. Konstantin Rogozhnikov underlines that his training frequency recommendations are not exclusive to the WPC supers. He believes that they are right for any lifter, including the drug free and the lightweight.

You will bench on Monday. Three days later, on Thursday, you will squat and pull. In another 72 hours, on Sunday, you will come back for more benches and upper body work. It is the legs and back again on Wednesday, and so on. But Rogozhnikov does not stop there and rotates heavy, light, and medium days. He does not rigidly follow the heavy-light-medium sequence as is customary in the US but prefers more light days, for example, H-L-M-L-H. The upper and lower body cycles are carefully planned in such a way that SQ/DL and BP heavy days do not sneak up back to back. In the preparatory period the coach likes to plan ahead at least five workouts of each type. If you stick to the H-L-M-L-H sequence for the BP and remember not to run upper and lower body heavy days back to back, your month might look like this:



Week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
1	BP H			SQ/DL L			BP L
2			SQ/DL L			BP M	
3		SQ/DL L			BP L		
4	SQ/DL M			BP H			SQ/DL L

Or like this:

Week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
1	BP H			SQ/DL M			BP L
2			SQ/DL L			BP M	
3		SQ/DL H			BP L		
4	SQ/DL L			BP H			SQ/DL M

If you are a bench specialist, skip the leg and back days and take 4-5 days between light and heavy bench days. Rogozhnikov's system has a track record of adding 50kg to already big benches in just 4-5 months. Anticipating problems, the boss warns "not to pump up the shoulders and biceps, box, or wrestle on days off." You know who you are.

## THE BENCH PRESS

While we know that varying the set and rep schemes over time is superior for strength, if we are to pick only one, three sets of six could be it. A perfect balance of volume and intensity. American researcher R. Berger who established it in 1962 would have been proud to know that half a century later one of Russia's top powerlifting coaches uses this protocol as his primary. 5-6/3 close to failure.

"Many ask the question: why only 3 sets? I answer: practice and experience show that after a third work set 90% of athletes are unable to handle the previous six rep weight. And if they are, then they have not chosen the correct weights. And if you can no longer press the working weight, then you are tired. And if you are tired, then you will not see progress... so there is no point in torturing yourself any more. So three sets are optimal."

You will be striving to up the poundage in these three hard sets of bench presses every heavy day or about once every four weeks. You do not have to lift the same weight in all three sets. The Russian coach prefers a more flexible approach of estimating the 6RM for the first set and then adjusting the weight up or down if necessary for the second and the third sets. If you have to tweak the poundage after the second set again, so be it.

On to the assistance. Like a Westsider, Rogozhnikov does not prescribe extra work for the pecs and the delts, but pays a lot of attention to the tris and pumps up the lats and the bis. Start with one drill for the triceps, 12-15/3. Then the same three sets of twelve to fifteen reps for the lats. The

elbow flexors get two exercises, one of them with the palm up grip and the other with the hammer or palm down grip. The reps climb to 20-30. As you can see, the bench gets heavy fives and the assistance is all pump and burn.

Six days later comes the light bench day. Put up 8-10/3 with 65-70% of the weight you pressed for fives or sixes on your heavy day. The assistance work may be the same as on the heavy day. When it comes to triceps exercises, the Russian coach insists that the most important thing is not to do the moves that aggravate your elbows.

It bears repeating: do not do triceps exercises that aggravate your elbows.

Not a single drill is irreplaceable. Name an exercise—any exercise aside from the three competition lifts—and I will find you a champion or record holder who has never touched it.

Another 144 hours later is the medium day. Now you get to play with Westside toys, chains and bands. Konstantin Rogozhnikov does not try to reinvent the wheel and sticks to Louie Simmons' recommendations: 50-55% of the raw max for eight triples. Finish with the same triceps, lats, and biceps bodybuilding.

The next light workout may repeat the last one or you could do something else that fits the "light day" description, such as dumbbell presses. When the next heavy day rolls around, hit your benches hard and heavy, try to break PRs. But only rep PRs. You may get down to triples occasionally but focus on fives and sixes and stay away from singles and doubles. The max effort method is not a part of the plan.

## THE SQUAT AND THE DEADLIFT

"[The squat] breaks the ground and gives hope for a victory," proclaims Rogozhnikov, "and [the deadlift] decides whether your [winning] plans... will come true."

Train your squat in the gear you compete in. Don't you dare to wear boxers if you compete raw in the AAU and don't forget your Kevlar if you are WPO.

Squat and pull in the same workout in that order. Konstantin Rogozhnikov reminds that the squat is the first lift of the competition, so get used to it. As for the deads, doing them after the squats rather than fresh will prevent inflated estimates of your meet pulling strength. The Russian specialist criticizes the popular practice of deadlifting in a separate training session: "Often you hear at meets: I have done this weight five times at home and here I can't even budge it! My approach gives you a real picture."

Rogozhkin's introductory squat cycle is very anti-Smolov and anti-IPF. Ease into WPC Russia training by squatting 60% in the first workout, 65% in the second, and 70% in the third, all for 5-6/3, all in full gear. These are competition style squats, not box squats. Note that the above workouts are six days apart.

Once you have gotten into the swing of things, start rotating heavy, medium, and light days. The coach reminds that the purpose of the latter two is recovery. The light and medium squat days are structured the same way as the corresponding bench days: 8-10 rep easy sets and speed work with 55-60% respectively.

As for the heavy days, they are for PRs. For instance, push yourself to do five reps with your recent competition style squat 3RM. On another heavy day box squat. Put on your suit and belt and do five touch and go reps with 85% of your competition max on a box 5-10cm (2-4") taller than parallel. Rest up and repeat with 90-95% x 5. Then maybe even put up a PR fiver with more than 100%.

Even though Rogozhnikov's athletes compete in WPC and their training is very influenced by WSB, their squats are not super wide and their feet are turned out so the quads are definitely in the game. To the point where the coach argues that the squats have toasted the knee extensors so much that there is no need to work them any more. The hips and the upper back are not so fortunate. Enter the deadlift.

In your first workout you will pull from 15-20cm (1/2-2/3') blocks. 5-6/3 with 80-85% of the competition max (not the max from the blocks). Rogozhnikov justifies his choice of the range of motion by pointing out that contemporary deadlift gear helps mostly for the first 10-15cm (1/3-1/2) of the pull and then checks out and leaves the muscles to battle the iron on their own.

Next workout do some other type of pull, for instance the snatch grip shrug with as much as 80-90% of the DL max for 8-10 reps. Or the power clean for 8-10/3. Or the straight-legged good morning. Deads with bands or chains are among the favorites. The Team Russia coach likes these not only for their ability to strengthen the lockout and the upper back, but also because they enhance the technique. He likes weights light enough to enable a perfect start without overwhelming the CNS, 60-65%. Add bands or chains to total 90-100% at the lockout. Don't suit up for this one.

If the squat workout was a killer, take it easy on your pulls. You could practice your technique, perhaps breaking up the ROM into segments. You could do speed pulls. Or simply pump up your deadlift muscles. On the other hand, if you have done light squats for 8-10 reps or speed squats, pull hard.

Among the second string squat and deadlift special exercises the coach lists low, 15-20cm (1/2-2/3'), box squats for stretching the hips. Medium height boxes help the deadlift start. He does not care for leg presses and prefers belt squats for leg work when the lifter's back is injured. Wide stance good mornings are in. So are jump squats. Go into a full squat with 40-45% on the bar and perform 8-10 reps with maximal speed and cadence. Accelerate the bar all the way to the top and don't pause either on the top or the bottom. It is not the safest exercise, so the Russian specialist reminds to keep the spine locked stiff and to pull the bar into your body so it does not bounce up and down on your back. Deadlift lockout holds are helpful. Pick up your max from high pins in the power rack and hold it for as long as you can, hopefully 20-30sec.

Chase your squats and pulls with back extensions, holding a weight in your hands, for 20-25/2-3. Rogozhnikov likes to finish all lower body workouts in this fashion to pump up the back and accelerate its recovery.

Without undermining the importance of planning, the Russian coach states that you must take it easy if you are dragging your tail. "I only ask that you don't confuse laziness and fear of weight with real fatigue!" He reminds that you might be able overcome your physiology for a few workouts but then the stress will catch up to you and you will find yourself in a deep hole of overtraining. If your warm-ups feel heavy, Rogozhnikov advises to scrap your plan for the day and do a light high volume workout with reps no lower than 10-12. "The plan is not a dogma," adds the boss. (Very un-Communist of you, Comrade.) In the same vein, if you feel on a roll warming up for a medium workout, go for a PR. A rep PR that is, 3-5RM. Although Rogozhnikov encourages setting records in assistance exercises in the off-season, he reminds that these should be rep records. 5RM, not 1RM.

The Russian specialist advises that you spend 3-4 months on this system, which would add up to the same number of five workout cycles. This much time is required to accustom your body to the rhythm of WPC Russia training; you can't expect results overnight. Feel free to experiment with the exercises but not with the loading parameters—sets, reps, percentages.

## PEAKING

The Team Russia coach has concluded that a competition cycle should last eight to nine weeks. Your schedule and training frequency will remain the same but you will get rid of the medium workouts and will be alternating heavy and light days. Make sure to bench heavy before heavy squats and deads rather the other way around: heavy BP—two days of rest—heavy SQ and DL—two days of rest—light BP—two days of rest—light SQ and DL—repeat the cycle. Heavy days call for full gear.

The assistance work will remain minimal and the same for the duration of the peaking cycle. Rogozhnikov holds to the traditional point of view that the competition period is not the time to be patching up one's weaknesses. For all the similarities between his system and the Westside you will not find heavy special exercises in the two-month window before the meet. He goes as far as condoning a lifter for forgetting or skipping the assistance work altogether. The only time the coach is not willing to compromise on the issue is after heavy equipped benches: "the connective tissues must be pumped through after exercises in a shirt".

### BP LIGHT WORKOUT #1

Bench 8-10/3-4 raw leaving one rep in the bank in each set. Focus on technique. Enjoy 20-25/1-2 for each the tris, the lats, and the bis, in that order, for dessert. With what the man calls "minimal weights". The idea is to pump the muscles and the connective tissues and help them recover.

## **SQ/DL LIGHT WORKOUT #1**

Start with legally deep squats with your knees wrapped for the familiar 6/3 but with lighter weights of 60-65%. Then pull competition style for 15/3 with 45-50% 1RM. It is up to you whether you want to touch and go or pause your reps. Wrist wraps are OK.

Rogozhnikov stresses that in the competition cycle assistance drills play only one role, that of promoting recovery. Not surprisingly back extensions with a weight held on the chest and reverse hypers for 20-25/1-2 each fit the bill. The coach lets you freestyle your ab and calf work. I can just see a stampede to the donkey calf raise machine.

## **BP HEAVY WORKOUT #1**

The Russian expert offers a sample warm-up for a bencher with the best competition result of 200kg in a shirt. An empty bar x 20/2, 60kg x 10/2, 100kg x 5, 125kg x 3, 150kg x 1 all raw. Then put on your shirt, wrist wraps, and belt and bench 170kg x 2 to a 12-15cm (4.75-6") board.

The work sets, 6/3 again, are board presses as well. Typically the Russkie ladies use 4-7cm (1.5-2.75") boards and the gents 7-10cm (2.75-4") boards. Russians have learned from Americans, this is where the shirt stops working and the muscles need to be strengthened. Estimate your 6 RM in the board press and go for it. Adjust the weight up or down if necessary for the next two sets. Rest for 5-10 min between sets. Lose the shirt and wrap up with the familiar assistance work.

## **SQ/DL HEAVY WORKOUT #1**

Squat in full gear to a box 7-10cm (2.75-4") higher than parallel for 6/3. Rogozhnikov lays out a sample warm-up for a 250kg squatter. An empty bar x 15/2, 100kg x 8, 130kg x 3, 150kg x 1, 175kg x 1-2. Then the first work set, 230kg x 6, only lightly touching the box. As soon as your glutes or adductors brush the box—drive up hard. If the weight felt light, increase it for the next set, say 240kg x 6. If it still feels good, jump again to 250kg for the last set of six.

The Russian expert warns that squat gear, as well as bench shirts, jack up the lifter's blood pressure, which could lead to health problems. For that reason he reluctantly permits you to reduce your reps from six, if your blood pressure tends to redline. Even if you don't have this problem, Rogozhnikov opposes doing more than one rep of parallel squats in full gear because an extra 'squeeze' on your body—a combination of the equipment and the depth—tends to redline the blood pressure. Raw lifting, anyone? Class, anyone?

The deadlift is next after a minimal warm-up focusing on the traps and on the technique. You will be pulling from 15-20cm (1/2-2/3') blocks in your competition style for—you guess it—three sets of six. You will have to figure out the poundage yourself. According to Rogozhnikov, it could be close to your competition max. You may wear straps but pass on the suit.

**BP LIGHT WORKOUT #2**

The same as the bench light workout #1.

**SQ/DL LIGHT WORKOUT #2**

The same as the squat and deadlift light workout #1.

**BP HEAVY WORKOUT #2**

The same as the bench heavy workout #1. Go for a board press 6RM PR. If the reps drop down to 4-5 on your last set, don't sweat it.

**SQ/DL HEAVY WORKOUT #2**

This workout is similar to the squat and deadlift heavy workout #1. Except instead of three heavy sets of six you will be maxing on the high box squat. The weight will exceed your competition max, which makes this exercise very powerful psychologically. Stick with 6/3 on your partial pulls and go for a six-rep record.

**BP LIGHT WORKOUT #3**

This time you will be benching in a shirt to a 2.5-3cm (1") board, focusing on competition technique. 2/6, six doubles, with 67-72% or 135-140kg for our 200kg bencher. Anticipating complaints, the coach cuts off, "If you are saying that such a [light] weight cannot be lowered to the chest, your press technique is far from correct... I am willing to make a bet with ANY bench press athlete that we can get him to lower a 50-60% barbell to a board and even to the chest on the very first workout."

Follow up with the usual assistance work.

**SQ/DL LIGHT WORKOUT #3**

Legally deep squats in full gear, only 1/5-6 with 65% for technique and speed. DLs from the platform for 15/3 with 45-50%. Assistance.

**BP HEAVY WORKOUT #3**

Work up to shirted 1RM on a 7-10cm (2.75-4") board. From your 6RM weight keep adding 10kg to the bar until you have reached your max, then ideally do another one or two singles with the same max weight. When you are ready to tap out, wrap up with a 'finishing' set—a term awkwardly translated from English. An example of a 'finisher' is 150-155kg x 8-10RM for a 200kg bencher. Assistance.

**SQ / DL HEAVY WORKOUT #3**

Competition squat in full gear for 4-5 singles with approximately 90%. If this weight, calculated based on the last meet's max, feels light don't be afraid to add a little but do not max out. Have your training partner call out commands, as in a meet. This workout will build confidence for the big day.

Suited up, competition deadlift 85-90% for 3-4 singles. Add weight if it feels light. Give yourself "a shakeup for adaptation" without going all out.

Assistance.

**BP LIGHT WORKOUT #4**

The same as the bench light workout #3.

**SQ / DL LIGHT WORKOUT #4**

Wrap your knees and squat 60-65% x 6/3 to parallel. Then pull in full gear. 6 singles with 60-65% emphasizing speed and technique. Assistance.

**BP HEAVY WORKOUT #4**

In a shirt, wrist wraps, and belt work up to four to five singles or doubles, 1-2/4-5, with near limit weights to a 2.5-3.5cm (1-1.5") board. The Russian coach warns to be conservative about sets and reps in a geared bench. Too many of the former punish the tendons and ligaments and too many of the latter make the blood pressure jump.

Assistance.

**SQ/DL HEAVY WORKOUT #4**

This is *prikidka*, a gym max day, for the squat. Take it easy on the deads: 6-8/3 with 60-62% will do the trick. Assistance.

**BP LIGHT WORKOUT #5**

Raw bench for 8-10/3-4 one rep short of RM. You may pass on the assistance.

**SQ/DL LIGHT WORKOUT #5**

Legal squats in wraps for 6/3 with 60-65%. No deadlifts. Assistance.

**BP HEAVY WORKOUT #5**

Take a competition style bench max in full gear. This weight will give you an idea of your numbers in competition two weeks later. Assistance.

**SQ/DL HEAVY WORKOUT #5**

Warm up and competition squat for 1-2 singles with a weight 30-50kg lighter than the one you stood up with during the 1RM test on the last heavy day. This is your opener. Then max your dead and do your assistance work.

**BP LIGHT WORKOUT #6**

The same as the bench light workout #5.

**SQ/DL LIGHT WORKOUT #6**

This is the last leg and back workout. Legally deep squats in wraps for 6/3 with 65-70% plus assistance.



## **BP LIGHT WORKOUT #7**

6-8/2-3 with a good cushion between you and failure. Skip the assistance. Take this workout 4-7 days before the meet, depending on your recovery rate.

## **WHY YOU SHOULD DO IT**

The WPC Team Russia coach sums up why his system is so effective.

"There are no mandatory RM percentages that must be fulfilled. On the heavy workouts you lift the weights you are capable of on the given day based on how you feel. Thanks to alternating light and heavy workouts, the joints and connective tissues are not excessively overloaded. Chronic injuries typical for the athletes working the same exercises several times a week go away, heal. Long rest periods between workouts and the distribution of load let the body recover and, most importantly, increase the strength potential."

If you have been tempted by the Westside siren song of variety but just can't call yourself a man without facing 5RM sets in the competition lifts, the WPC Russia method might be for you. "Accumulate strength, collect confidence, bring up the weak... spots—and your records will come!" promises Konstantin Rogozhnikov, Distinguished Coach of Russia.

# **'Specialized Variety': Get Strong with Foolproof Assistance Exercises**

## **PART I: THE THEORY**

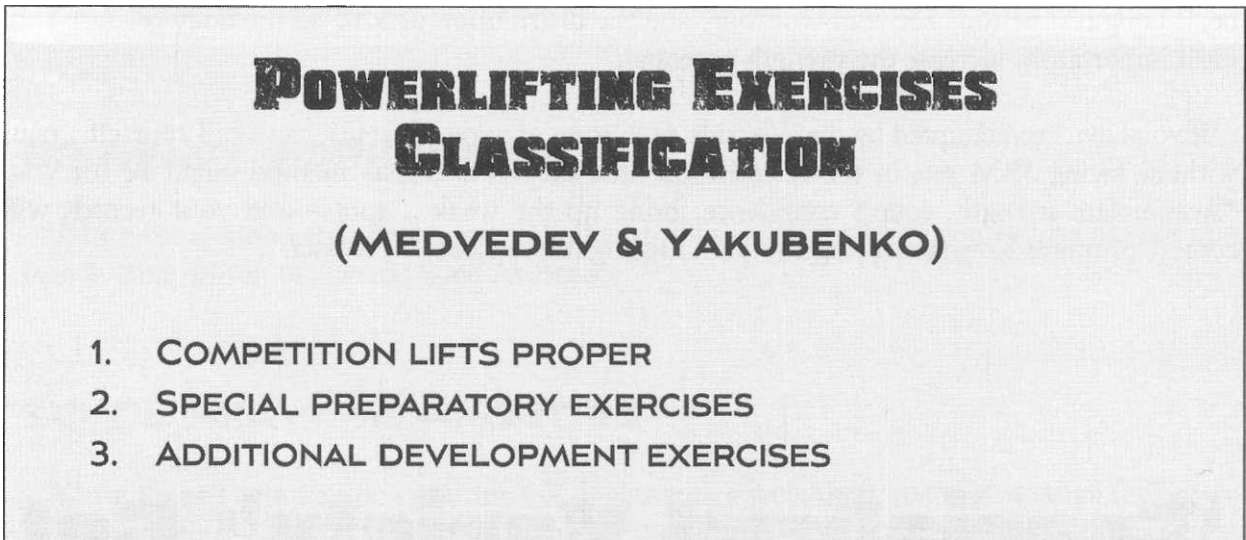
Russian coach Lev Shprints tells an amusing story about a group of young Russian lifters who were fortunate enough to meet and pick the brains of two iron legends in one day.

"You are weightlifters," said weightlifting Olympic champion Leonid Zhabotinsky. "That's good. But it is wrong to limit yourself to the barbell; you ought to take up track and field, play soccer, volleyball."

Then they approach circus strongman, girevik, and powerlifter Valentin Dikul. "I will give you one piece of advice," said the man who is credited with a 1,000+ pound deadlift, "If you want to become champions you must fully dedicate yourselves to weightlifting; don't get distracted by soccers-basketballs..."

I don't expect the debate about 'soccers-basketballs' and GPP to be solved any time soon and I am not jumping into the fray today. The purpose of this article is to give you assistance exercises that will absolutely, positively improve your lifts. 'Soccers-basketballs' and other exercises might do it too but anything with a 'might' will not cut it for this article. Only foolproof here, Comrade!

I will start by presenting the Russian powerlifting exercises classification by Prof. Alexey Medvedev and Yaroslav Yakubenko. Note that although I mostly use powerlifting examples here, the principles apply to any lift you want to excel at, be it the deadlift, the barbell power clean, the kettlebell press, the handstand pushup, or something else.



Only the competition style SQ, BP, and DL, or the 'classic exercises', as Russians call them, fall into the first category.

Medvedev and Yakubenko point out that the exercises in the second group are similar in coordination to the competition lifts and involve heavy weights. They stress that "this group of exercises is the main one in the athletes' preparation as they simultaneously (in the conjugate fashion) develop specific physical qualities and perfect the athletes' technical skill in the competition lifts."

The third group contains 'development' exercises with a localized effect on select muscle groups. Typically they employ fairly light resistance and their structure may be very different from the competition lifts. "They are performed not only with a barbell but also with machines, kettlebells, and other types of resistance," explain the Russians. They list exercises like kettlebell military presses and leg presses in this category.

It is the exercises of the second group, or variations of the powerlifts, that are the focus of this chapter. The point is: exercises closely resembling the competition lift are the only foolproof assistance exercises. Only such exercises assure the neural adaptations helpful to the cause and muscle hypertrophy helpful to the given lift.

These exercises work for at least two reasons. First, 'specialized variety', providing a novel, yet specific training stimulus and second, recruiting and building previously unused motor units and weak muscle groups.

### 1) 'SPECIALIZED VARIETY', PROVIDING A NOVEL, YET SPECIFIC TRAINING STIMULUS

The biological *law of accommodation* states that the response of an organism to a given stimulus decreases over time. In other words, the longer you repeat an exercise, the less effective it gets. Therefore, exercises must be varied.

On the other hand, there is the *law of specific adaptations to imposed demands*. It states that in order to get good at an exercise, you must practice that exercise.

So effective training must be different and same! A puzzle for a Zen master. According to Zatsiorsky (1995), the conflict between the need for specificity and variability is one of the main problems in elite athletic training.

Switching to different variations of the competition lifts enables the lifter to solve this problem and keep making progress. Addressing weightlifters who still pressed, Rodionov (1967) emphasized the importance of changing the grip, the barbell or foot position, the bench incline angle, etc. He emphasized that training with such minor changes was less tiring and the adaptive response was more pronounced. Garhammer (1981) established that subtle variations of the hand or foot placement or the body position during the same exercise helped continued strength gains.

Nikolay Ozolin, one of the patriarchs of the Russian sports science, lists the *principle of variety and novelty* among the principles of special sports preparation. This principle prescribes including exercises that are "different in form and content", yet still specific to the needs of the athlete's sport. "Exercises practiced in multiple sets should preferably be varied (the form of the movement, the type of grip, the implement, and other conditions), but in such a way that the same muscles are used and used in the same regime. This adds variety and reduces the psychological strain." (Ozolin, 2006) The Westside Barbell Club using three grip widths on their dynamic effort bench day is an example of this idea applied. This is what Russians call *specialized variety*. (Bachvarov, 1986)

Ozolin offers examples of specialized variety from different sports diving from an unfamiliar height, long jumping from a board elevated above the track, gymnastic take-offs from a vaulting board with springs stronger or weaker than the regulation ones, playing table tennis with two balls at once, throwing a hammer while standing on an elevated round platform of a limited diameter. Throwers throwing a variety of implements is Louie Simmons' favorite example. "This system will improve form as well as build phenomenal strength."

## 2) RECRUITING AND BUILDING PREVIOUSLY UNUSED MOTOR UNITS AND WEAK MUSCLE GROUPS

The second benefit specialized variety offers to a powerlifter or any other strength athlete is recruiting and building previously unused motor units.

If the athlete experiences the *bottleneck effect* when weakness in one of the links of the kinematic chain limits the chain's performance, Zatsiorsky (1995) recommends to change the exercise so the load is redistributed differently, rather than isolating the weak muscle group. Why, you might ask? Isolate it and fix it, there are hundreds of exercises in the bodybuilders' arsenal. If it was only that simple. What you are very likely to end up with is a strength increase in the exercise you have picked without a corresponding increase in the powerlift—and a few pounds of worthless meat as well.

Digby Sale and his research team discovered that individual muscles within muscle groups and even motor units within individual muscles have activation patterns that are highly movement specific. In other words, you will not be using the same part of your quads during squats and leg extensions. "It would be most efficient to induce hypertrophy only in the muscle fibers of the motor units that are activated in the sports movement," explains the Canadian researcher. "Hypertrophy of irrelevant muscles and motor units might even be counterproductive, particularly in sports which require a high strength to body mass ratio." (Sale et. al, 1983)

It is only logical that if muscle gains are so specific, neural adaptations have to be even more so. Champion bench presser George Halbert comments, "How is it that my training partner and I can perform the same exercise (5 board lockouts) and only my lockout improves while his lockout is stuck? I realize that there are numerous reasons that this phenomenon may occur, but the number one answer is technique."

Unless you mimic the technique of your competition lift with your specialized variety exercises, you are probably going to miss the boat, "...remember," warns Louie Simmons, "when doing the good morning, in your brain, you must duplicate the action of the deadlift precisely. It is not so important to raise your good morning as to raise your deadlift by performing the good morning... remember to use the same body mechanics as you do in the deadlift."

Dr. Richard Schmidt, the director of the Motor Control Laboratory at UCLA, explains that each skilled movement is described with its *invariances*— fundamental, unchangeable features— and *surface features* which are adjusted to accommodate to the immediate needs. Schmidt offers the analogy of a phonograph record. The record contains a song, a generalized motor program, say, the squat technique. It is invariable. But you can play the record at different speeds, adjust the bass and the volume, choose different speakers. These are surface features, the variations in the squat stance or depth, different types of bars, bands and chains. Changing them does not change the fundamental squat motor program.

*Relative timing* is one of the invariances. Starting the squat ascent by pushing your traps and arching into the bar is an example of relative timing, an invariance. You may use a different bar,

you may even hold the bar in front of you if you are front or Zercher squatting, but you will still arch your upper back to start the ascent rather than push with your legs.

Another relative timing squat example. If you are a Westsider, starting the descent by pushing the hips back is an invariance; for a Russian IPF squatter it would be breaking at the knees and the hips at once. It is an invariance because changing it completely changes the skill. Coming up fast or slow are surface features though.

The role of carefully selected specialized variety exercises in bringing up your weaknesses deserves special attention.

A muscle is most active when it has the greatest mechanical advantage (Sale et. al, 1983). Depending on your leverages, some of the muscles do not get the leverage advantage and thus lag behind. "If three lifters did dumbbell presses," explains Louie Simmons, "it is unlikely that all three would wear out the same muscle group first. One's pecs may wear out first, and the second's triceps may give out, while the third's delts may wear out sooner. Only a very few lifters will fatigue all three muscle groups simultaneously." Obviously, the third example is what you are shooting for if 1RM strength is what you are after—you want to use 'the mostest' muscle. Sale et. al (1983) attempted to explain a carryover of strength from mechanically similar exercises by recruitment of previously inactive motor units—exactly what we are looking for.

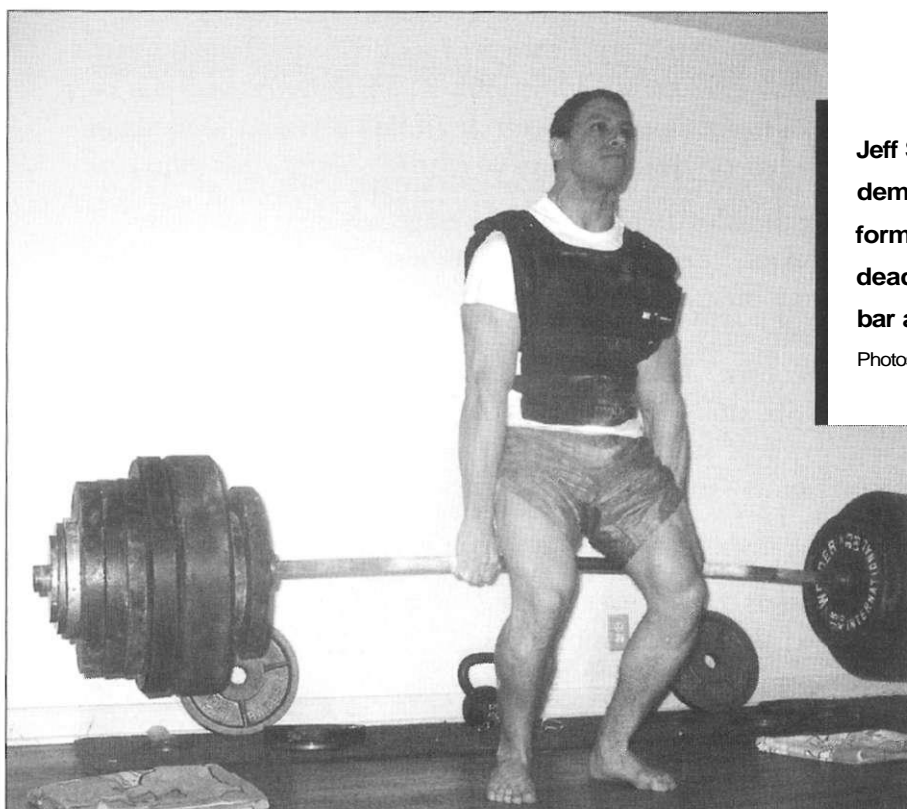
If something is very weak, your nervous system's adaptability—it is called *neuroplasticity*—kicks in and orders the stronger neural centers to take over. This compensation leads to the weakness getting a free ride and getting even weaker. For example, a stroke patient with weak fingers but good shoulders and arms will continue losing strength in his fingers because the areas in the motor cortex representing the arms and shoulders will overpower the weaker centers in charge of the fingers. Restricting the arms and shoulders though, will prevent the neural coup d'etat and force the fingers to do their share.

By the same token, a short wasted deadlifter will naturally take advantage of his strong back. His back will keep getting stronger and stronger while his legs and hips will keep lagging behind. As with the stroke patient, the powerlifter's stronger muscle group must be artificially restrained in order to force the weaknesses to work. But it is very important that it is done through a variation of the deadlift rather than the squat, the leg press, or the leg extension. The answer is finding a deadlift variation that forces the lifter to use his legs. The behind the back deadlift is one such exercise.

Squats or leg presses *might* succeed. Behind the back deadlifts *shall* succeed.

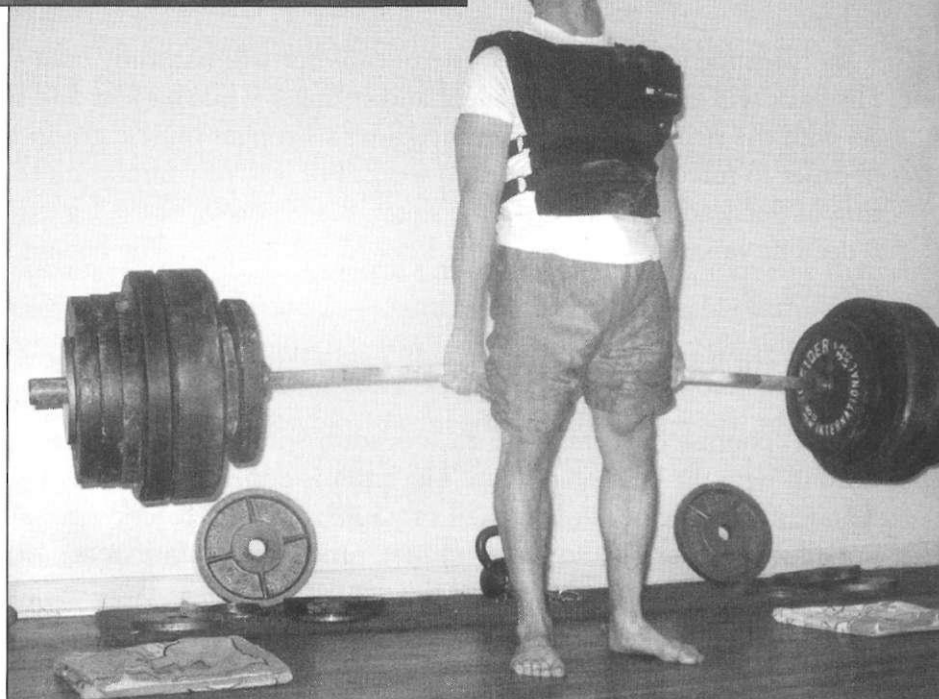
Don't confuse the behind the back deadlift with the Hack squat. The former is the conventional deadlift with the bar behind you. The latter is done on the balls of your feet and with your hands 'handcuffed' together in the small of your back. The behind the back deadlift—make a point of not allowing your hips to shoot up first, otherwise you are doing an ugly stiff leg!—allows one to use poundages not too far behind the regular deadlift's. The 106-pound kettlebell will stop most strong men in their tracks in the Hack squat because of the drill's killer leverage.

The behind the back deadlift is highly specific to the competition style conventional deadlift; it is doubtful there is a better leg builder for the DL. Louie Simmons tells how George Clark who pulled 700 at 181 in the early seventies used the behind the back deadlift as his primary DL drill. 870-pound deadlifter Brad Gillingham told me he had used it with great success until he got too big to do the exercise comfortably. The Hack squat is a great exercise for fighters but it is too different from the DL to help it much.



**Jeff Steinberg, RKC**  
**demonstrates picture perfect**  
**form in the behind the back**  
**deadlift with over 500 on the**  
**bar and a 75-pound vest.**

Photos courtesy Jeff Steinberg, RKC



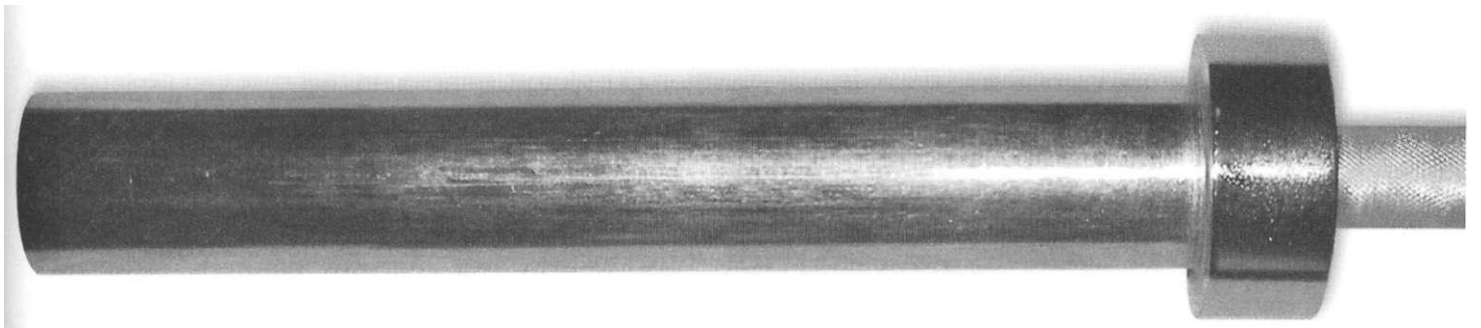
Let us sum up what we have learned so far:

*Specialized variety exercises mimic the lift the athlete wants to improve.* Specialized variety exercises build strength by providing a new stimulus while still keeping it specific to the target lift and by recruiting new motor units. **They are the most reliable class of assistance exercises.**

The motor program of the competition lift remains, the changes take place in one or more of the surface features. Following is a short list of possible changes:

1. STANCE
2. HEAD POSITION
3. GRIP
4. INCLINE
5. SPEED
6. ADDED BANDS, CHAINS, WATER RESISTANCE, ETC.
7. IMPLEMENT
8. RANGE OF MOTION
9. DISPLACEMENT OF THE WEIGHT
10. ASSISTANCE GEAR

The goal of this article is not to convince you that exercises less specific than variations of the lift you pursue are totally worthless. I am sure you know someone who has increased his deadlift with leg presses and upped his squat with gastroc-glute-ham raises. It is obvious that the specificity studies cited in this chapter are not the last word in training and there are exceptions. My goal was to give you only sure bets. Other exercises might help. But these certainly shall.



# "Specialized Variety": Get Strong with Foolproof Assistance Exercises

## PART II: THE METHOD

"[Deadlifts will make] some athletes' leg-strength grow faster and others' back-strength. With the same workload! This is objective reality and not the result of coaching mistakes!" state Ukrainians S. Glyadya, MSIC, world champion and Prof. M. Starov.

Recall that a muscle is most active when it has the greatest mechanical advantage (Sale et. al, 1983). Your quads may have that advantage but not your back, or vice versa. This is where specialized variety comes in.

But not until you have paid your dues with the basic powerlifts. You have no business adding any assistance work until you have practiced the SQ, BP, and DL proper for at least a year. It does not matter how many years or even decades you have been 'working out'. How long have you been PLing for real?

There are at least two reasons to stick with the basics until then. First, a beginner will make great gains without any variety. Why not save the extra strength medicine until you really need it? Second, how can one improvise on a theme before he has mastered that theme? You would not ask a music student who can't yet play sheet music well to do free-form improvisation. By the same token, if you can't even squat properly, the last thing you need is the extra challenge of a new stance or a different bar! Former Coach Women's IPF Team USA Mark Reifkind, Master RKC made WSB his method of choice years ago. Nevertheless, he advises beginners to stay away from Westside until they have grooved their competition lifts with traditional Coan style cycling. Team Russia coach Boris Sheyko warns that athletes ranked lower than CMS should not do extended deadlifts off a 10-15cm or 4-6 inch box. He explains that a different starting position might have a negative carryover to a still unstable competition pull technique. So forget variety at the early stage of the power game and groove your classic lifts with low reps, moderate intensity, and high frequency. Power to the People!

There is one exception to this rule, a dysfunction like gluteal amnesia. In that case you need corrective exercises. Prescribed by an expert physical therapist, not by your gym buddies. I suggest that you contact Gray Cook, RKC, the premier PT in the country—in a recent Super Bowl both teams were his clients—through his website [www.functionalmovement.com](http://www.functionalmovement.com).

Once you have reached a respectable level of strength—by gym standards, not by powerlifting standards—you may want to add specialized variety. Note that I said 'may', not 'must'. There are many elite strength athletes whose training is very narrowly specialized.



How do they do it? When asked about the successes of narrow specialists like Bulgarian weightlifters and, to a lesser degree, Russian powerlifters, Louie Simmons points out that they have perfect leverages for the competition lifts. The Commies have figured out what these perfect leverages are and they even have a term to describe the lifter who has them—the 'model athlete'. USAPL national champion and IPF Team USA Head Coach Dr. Michael Hartle, RKC TL has compared Russian IPF lifters to Russian nesting dolls: their size will change from weight class to weight class but they are all built the same. Very funny, Doc.

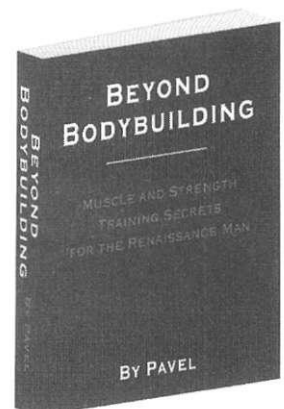
Simmons reminds that Bulgarian WLMs who fail to improve on the official no-variety training regimen burn out and get discarded by the authorities. "...if you line up five weightlifters in a row, you will find that some have better traps, while lacking erector size, and some may have huge glutes, while others have hardly any glute development. This is because they have different structures. Special exercises can counteract this," stresses Louie and adds that only people with the ideal structure for the given lift can go all the way to the top just by practicing that lift.

Obviously, you don't have to add assistance to all your lifts but only to the ones not favored by your leverages. For instance, you might deadlift only, but add bench variations.

## SV APPROACH # 1

There are many ways to incorporate 'same but different' exercises into your training. One approach is to run a classic power cycle with the competition style lift with several 4-6 week cycles of specialized variety exercises built into it.

I explained the reasons for the 4-6 week time frame in *Beyond Bodybuilding*. These recommendations are meant for those who cycle and do not apply to Westsiders; WSB is a self-contained system with its own logic.



First you need to map out your cycle for the competition lift. Once you know its length you will be able to decide on the number of special exercises and map out their cycles accordingly.

For instance, you are running a twelve-week deadlift cycle with the meet falling on week thirteen and you pull once a week. Based on your experience, decide how close to the meet you want to discontinue your assistance work. If you have no such experience, pull the plug on it two weeks out. Using the above example, this will leave you with eleven weeks of SV. This gives you a six-week cycle of one drill and a five-week cycle of another.

You are weak off the floor and you have decided to pick two exercises to work that weakness: behind the back deadlifts and snatch grip deadlifts. You debate which one should you leave for the end of the cycle. You consider that the behind the back DL is less stressful on the back than the snatch DL which would make the former a better choice close to the meet when you want to keep your back fresh.

You have never done snatch grip DLs. In your first workout you get a feel for the technique—squeeze those glutes to get the bar moving!—and work up to an easy set of five. E.g., 225x5, 275x5, 295x5. Remember that you will need to add weight to the bar every week and not hit and all-out set of five until week six.

Each week you repeat the procedure and work up to a progressively heavier five. Never forgetting that you should save your strength for a big push in week six you add weight very conservatively, usually 10 pounds a week.

You may do a couple of lighter back-off sets of five following your top set, e.g. 275x5/2. Add them during the second week.

If you have done the exercise in recent past you can map out a cycle with a projected 5RM working back. E.g., you have done 365x5RM. Work back in 10-pound increments: 365, 355, 345, 335, 325, 315.

For your second assistance cycle, five weeks of behind the back deadlifts, you may stay with fives or switch to triples as you are closer to the meet. Keep your back-off sets, if you do them, at five reps though.

You might start with 225x3, 315x3, 365x3, 385x3, 405x3. The next week you will do 315x3, 365x3, 415x3, 315x5/2. You get the idea.

If you employ a non-linear cycle you need to make sure that the pushes and the back-offs of the waves of the long cycle and the SV cycles coincide. For instance, here is a successful deadlift cycle 800-pound puller Dr. Fred Clary shared with me a few years ago:

1. 700x1
2. 700x1, 630x2, 600x2
3. 725x1, 675x2, 625x2
4. 750x1, 700x2, 650x2
5. 675x3x3
6. 675x1, 550x1x6
7. 710x1, 600x1x5
8. Meet: 800x1

Converted into percentages of the projected max it looks like this:

1. 87.5% x 1
2. 87.5% x 1, 79% x 2, 75% x 2
3. 90.5% x 1, 84.5% x 2, 78% x 2
4. 94% x 1, 87.5% x 2, 81% x 2
5. 84.5% x 3/3
6. 84.5% x 1, 69% x 1/6
7. 90% x 1, 75% x 1/5
8. Meet: 100%

If you go to the trouble of inserting your own poundages you will see that the intensity and the volume build up for four weeks and then taper. Do the same with your specialized variety deadlift; top it out in week four, after the 94% day. At that point you only have two weeks of assistance left, if you believe in pulling a plug on it two weeks before the meet. Two weeks is not enough to do another exercise justice—besides, the cycle is tapering. The best thing to do is to stay with the same SV drill and taper it as well. You could simply repeat week one or two during weeks five and six. Or take it easy in some other, less formal way.

Another example, a powerful bench press cycle by Russian lifter Sergey Istomin.

1. 75% x 5/3
2. 78% x 5/3
3. 80% x 5/3
4. 85% x 5/3
5. 87% x 3/3
6. 92% x 3/3
7. 95% x 3/2
8. 98% x 2/3
9. 102% x 2/2
10. 105% x 2/2
11. Meet

If you crunch your numbers you will see that Istomin pushes his five rep sets for four weeks. In week five, although the poundages go up, the workout is easier than the one before. Then it builds up again. Week four then is the logical point to end the first SV cycle. If you pull the plug on assistance two weeks out, that leaves you with five more weeks to work another SV drill.



## HOW TO GET STRONG WITH SPECIALIZED VARIETY EXERCISES

- Stick with the basic powerlifts for at least a year of serious low rep training.
- Then, if your progress has slowed down, consider adding specialized variety exercises.
- *Specialized variety exercises* mimic the lift the athlete wants to improve. They are the most reliable class of assistance exercises.
- One or more of the following surface features may be changed to make a specialized variety exercise:
  1. Stance
  2. Head position
  3. Grip
  4. Incline angle
  5. Speed
  6. Added bands, chains, water resistance, etc.
  7. Implement
  8. Range of motion
  9. Displacement of the weight
  10. Assistance gear
- Run a classic power cycle with the competition style lift with several 4-6 week cycles of specialized variety exercises built into it.
- First map out the cycle for the competition lift. Generally keep it in the 6-12 week range.
- Fit one or more 4-6 week cycles of specialized variety exercises into the primary lift long cycle.

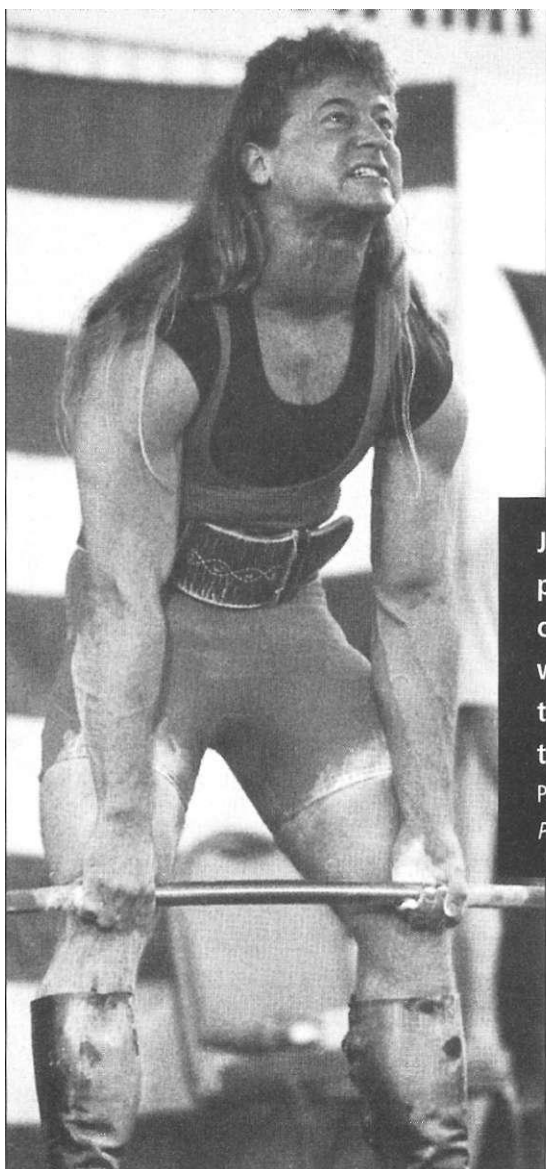
### CYCLE CONSIDERATIONS:

- Peak the last SV cycle two weeks before the primary lift peak unless your experience tells you otherwise.
- If your long cycle is not linear, plan your assistance cycles to push and back off in sync with the competition lift cycle.
- Train the primary lift and its variation once a week each.
- If you are a full meet powerlifter, train your BP and assistance on separate days. Do your SQ assistance in the end of your SQ workout and your DL assistance in the end of your DL workout.
- If you are a one-lift specialist or a push/puller, practice your competition lift and its variation on separate days favoring the primary lift with more rest, e.g. Monday BP and Thursday BP assistance, Tuesday DL and Friday DL assistance.
- In your first SV workout, work up to a very conservative set of 5 keeping in mind that you must add weight every workout and peak in 4-6 weeks.
- Starting with the second workout you may add 1-2 back-off sets of five.

## SV APPROACH #2

Then there is an even simpler way to incorporate SV drills into your training. Start the cycle with a variation of the competition lift and switch to the competition style once it starts feeling heavy.

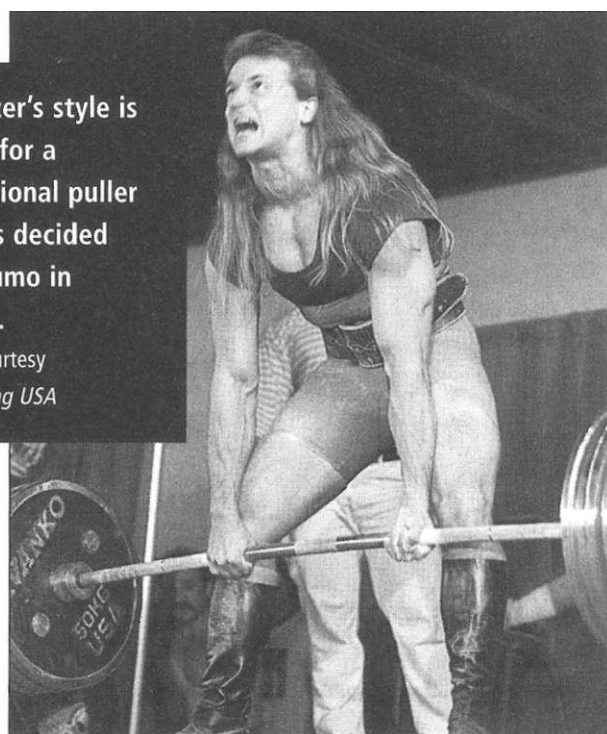
The sumo deadlift is another great specialized variety exercise for a conventional puller. It is common for a sumo puller to start a deadlift with conventional pulls and switch to sumo closer to the meet. A solid strategy that for some reason is rarely used in reverse by conventional deadlifters. Westsider Maria Ligett, a 485 at 132 puller, trained her DL in the sumo stance and competed conventional. This approach allows one to greatly strengthen the glutes. Because of the angle of pennation (the direction the fibers run) of the glutes, they have a better mechanical advantage in the sumo stance. Which is why you will meet flat-butt conventional pullers but good luck finding one among sumo stylists. Sumos will teach your glutes to fire in all your deadlifts.



The important thing is not to let your sumo become a squat with the bar in your hands or an exercise in hip stretching; imitate your conventional pull. Use a moderate, as opposed to extra wide, stance, a minimal turnout, and don't sit too low. Think Coan, Inzer, or Podtinny, not the Finns. Extend using the same rhythm as your regular pull. Clench your cheeks tight at the start and keep squeezing them all the way to the lockout. It helps to use 35-pound plates to roughly match the distance of your conventional pull.

John Inzer's style is perfect for a conventional puller who has decided to go sumo in training.

Photos courtesy  
*Powerlifting USA*



Start your cycle lighter than you normally would because your sumo max is lower than your conventional max. Once the weight feels heavy but not yet maximal, switch to conventional. A 500-pound puller's cycle might look like this:

1. 315x5/2 sumo
2. 335x5/2 sumo
3. 355x5/2 sumo
4. 375x5 sumo
5. 395x5 sumo
6. 415x5
7. 435x5
8. 455x3
9. 475x3
10. 495x2
11. Meet

## SV APPROACH #3

Jeff Steinberg, RKC who has sumoed 600 for reps at 168 and raw has a simple and rock solid approach to SV. Jeff pulls every four to five days and starts by working up to a heavy triple or five in a deadlift variation he is relatively weak at, for instance, conventional or behind the back. He finishes with three singles in his strongest style, sumo. When the gains in one DL variation dry up he moves on to another.

Steinberg's template, simple as it is, is very scientific, in the tradition of Paul Anderson. You already know why strength transfer from SV exercises to the primary lift is so high. Practicing assistance drills and the competition lift back to back makes the transfer even more reliable. Anderson intuitively understood this when he performed his powerlifts and assistance exercises in a circuit. He would do a few squats, rest a bit, do a set of good mornings, then more squats... Big Paul did this to 'coordinate' the strength built with the assistance exercise, with the powerlift. Today we understand what he did and why it worked. The neurons which regularly fire close together tend to get cross-wired and become a part of a single neural network. As a result, in Jeff's example, the behind the back DL muscles and fibers previously unused in his sumo pull become integrated into it.

In plain English, if you have not felt a given muscle group fire in the competition lift, now you will. Activated by the SV exercise it will keep 'buzzing' for a while and will get incorporated into the competition lift that follows.

To sum up this approach, do a four to six week cycle of a SV exercise with one work set of 3-5 and no back-off sets. Follow with several 80-90% singles of the competition style lift.

Jeff Steinberg's competition style singles are heavy, up to 95%. Most lifters but for a talented few will crash and burn from pulling so heavy on a regular basis. If you want to give Jeff's style of training a shot keep your singles between 80 and 90%. Try the cycle by Texas champion and record holder Patrick 'Phil' Workman, RKC. In the first workout do two singles at 80%, in the second at 85%, and in the third at 90%. Then recycle adding 5-10 pounds to each of the three workouts. Max after a few, typically three, of such progressively taller waves.

As Rif says, "Compete your strengths, train your weaknesses."

# "Specialized Variety": Get Strong with Foolproof Assistance Exercises

## PART III: THE DRILLS

A book could be filled with effective powerlifting SV drills. To make it on the following short list an exercise had to meet the following criteria: a high degree of specificity, not well known, and not requiring sophisticated equipment.

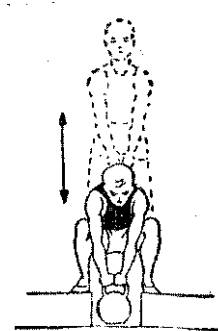
### ZERCHER SQ

Zerchers rock. They will make both your DL and your SQ skyrocket.

### DEPTH SQ

Russians rarely name exercises, usually assigning them boring descriptions. For instance, the good morning is just 'the forward bend with a barbell'. This one must be really special, not only does it have a name, it has three! The 'depth squat', the 'squat into a water well', and the 'pyramid deadlift'. Take your pick.

Another dual purpose, SQ and DL, drill. Great for the quads and the deadlift start, according to Sheyko. Sit below parallel, the man says. He also recommends it for honing one's squat technique. Use your competition stance for this purpose.

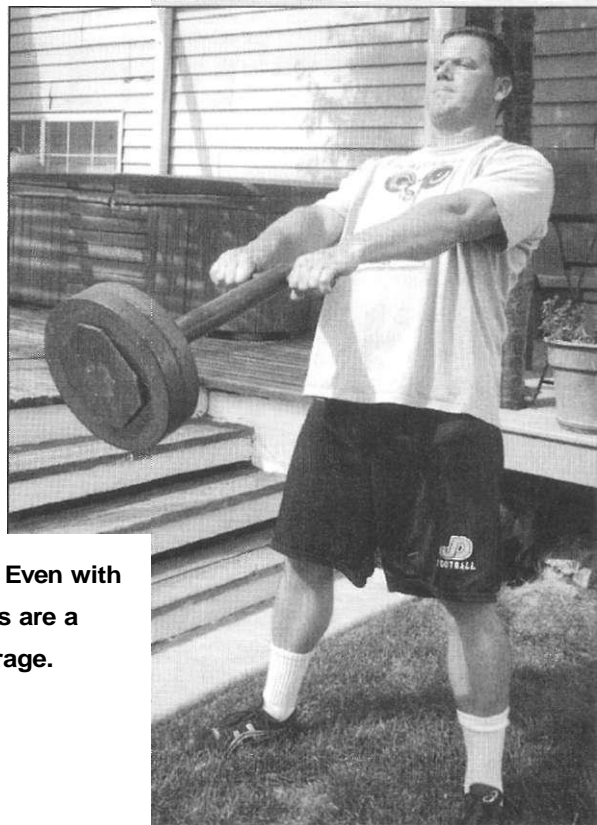


**Depth squat drawing from the 1966 text on training the long jumper by the Distinguished Coach of the USSR V. M. Dyachkov.**

Beginners traditionally do this exercise with a kettlebell. If you want to go heavy you will need a special rig with a short handle and stackable plates such as Dan John's 'Core Blaster'. Big guys will need a longer pipe to stack more plates. There is an article on Dan's website that will teach you how to make a CB from hardware store components for \$15: [www.danjohn.org/117.pdf](http://www.danjohn.org/117.pdf)

## A PERFECT RIG FOR VERY HEAVY KETTLEBELL SWINGS

If you want to do extremely heavy kettlebell swings, the Core Blaster is your answer as well. It takes up to five forty-five pound plates, which is way more that you will need for heavy swings, especially given the length of the lever compared to the kettlebell.



**Dan John with his Core Blaster. Even with a couple of 'quarters' CB swings are a killer, thanks to the brutal leverage.**

Photos courtesy Dan John

## BELT SQ

Get a belt from [www.IronMind.com](http://www.IronMind.com) and go for it. Attach the weight to the front carabiner only; if you hang it on both you will be too upright for your SQ or DL groove. To improve your SQ don't relax on the bottom. For the DL release the tension and then restart from a dead spot. You may need to stand on blocks. The Core Blaster will come in handy here as well.



## DL TO THE KNEES

The deadlift up to the knees is a popular in Russia exercise. Russian PL team head coach Boris Sheyko explains that it develops the technique for the start of the lift.

It did not 'fix' Gary Heisey's technique that purists still consider atrocious. But they did help building his strength to the point where he pulled an all-time record 925 pounds twenty years ago. He started one of his twice a week DL workouts with four sets of pulls to the knees, anywhere between 3 and 8 reps depending on how close he was to the meet. Then he did lockouts. This practice of his would become a staple in elite Russian PL training.

Sheyko sometimes makes the DL to the knee even harder by adding a 3-5sec pause at the knee level. He also likes following a half rep with a full rep for better technique and strength integration.

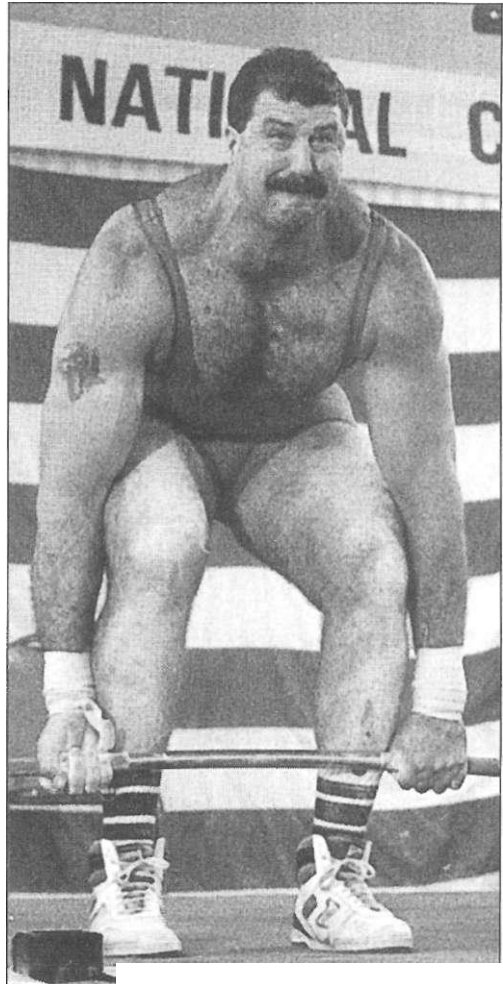
The drill works for pullers of any style.

## SNATCH GRIP DL

This wide grip DL pull is big in Finland and for some good reasons. This variation develops the start because the wide grip lengthens the pull. The snatch grip pull is done in the conventional style only.

A conventional puller who uses the style similar to the Olympic lifting pull, that is shoulder blades together, or a sumo puller will find that the snatch grip DL will also teach him to lock his back just right and will develop a precise groove. A humpback style conventional puller is better off with the traditional DL standing on a box or a 100-pound plate; he does not need motor learning confusion in his upper back.

The snatch grip deadlift to the knees is a powerful combo of the above two pulls.



**Gary Heisey, the deadlift king.**

Photo courtesy *Powerlifting USA*

## HANG DL

Theyko recommends it for improving the technique and starting speed. Traditionally the lifter starts by doing one regular DL, then lowers the bar below his knees under control, pauses, and then blasts up again.

In my experience, this is a terrific drill for lifters who have a hard time getting tight before the pull. The effect is similar to that of the pause squat. Consider using 35-pound plates or standing on a 45-pound plate in order to 'hang' above the platform at the exact level you would be starting your competition style pull.

Medvedev and Yakubenko list the hang DL from below the knees to above the knees as a DL special preparatory exercise. Not only does it strengthen the mid-range, this type of pull develops a seamless, 'without switching gears' technique and a very precise line of pull. Sakari Selkaihaho tells that his fellow Finn Hannu Saarelainen would do high reps with a light weight in this exercise, only an 8-10 inch range of motion, to overcome his sticking point with great success.

The variation works for either style.

## DL 'FROM THE EDGE'

Another Russian killer. The bar is balanced on a narrow wooden block that does not quite reach the lifter's knees. The lifter straddles the block and DLs the bar with a wide, snatch grip. A wider grip makes up for starting the pull higher.

Theyko recommends an explosive concentric and a slow eccentric. Bend your knees only slightly on the way down; this is an RDL on steroids. Set the bar down, something you will have to do very precisely because the wooden block is only a few inches wide. The drill will smoke your lower back, promises Theyko.

Although done in the conventional stance, the DL from the edge will improve your sumo pull as well.

## BEHIND THE BACK DL

As I mentioned in part one of this series, the behind the back deadlift is probably the best leg exercise for a conventional deadlifter.

## SADDLE DL

Known as the Jefferson squat in the US, this drill trashes the quads, strengthens the start, and teaches the perfect back position.



**Veteran powerlifter and all-around lifter John McKean demonstrates the saddle deadlift.**

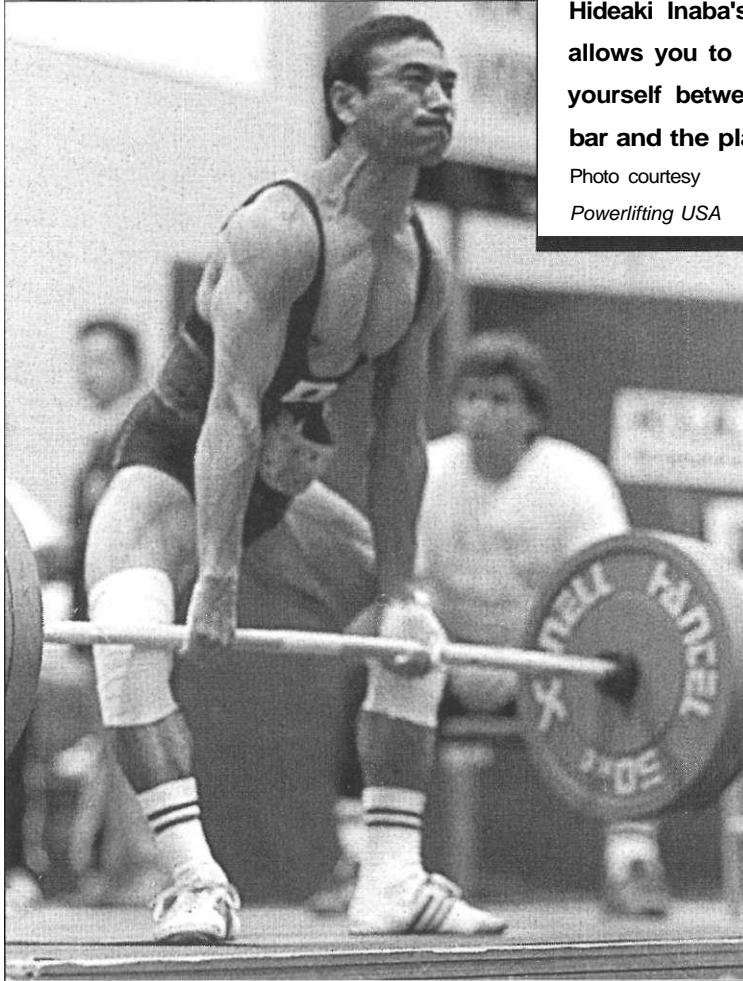
Photo courtesy John McKean

Straddle the bar. It should be diagonal to your body rather than perpendicular. Maneuver yourself into a frog stance, wider than the conventional but narrower than the sumo, your toes turned out more than forty-five degrees. Get a wide staggered grip—for most with the hands barely inside the power rings—and carefully stand up, aware of the possibility that the bar will windmill.

Stay with 135 and experiment with your stance and your grip until the lift feels right. Some lifters will find that they like to grip the bar asymmetrically. Others will prefer to do most of the lifting with one leg, the one on the side of the arm that is behind you. Take your time messing around until you hit the sweet spot.



## FROG DL



**Hideaki Inaba's style allows you to 'wedge' yourself between the bar and the platform.**

Photo courtesy  
Powerlifting USA

Japanese PL great Hideaki Inaba's frog style splits the difference between the sumo and the conventional and smacks of the ballet plié.

The foot position is similar to that of the last exercise's but the bar is in front of you, as usual. Staying quite upright 'spread the floor' and 'leg press it away'.

You will develop a strong start and the patience to stay with a heavy attempt that does not want to move.

## ONE-ARM DL WITH THE BAR IN THE FRONT

A great 'beyond specificity' drill. Displacing of the load recruits the obliques and the gluteus medius to

the max and thus teaches you to use them more in your competition style pulls. You may go sumo or conventional.

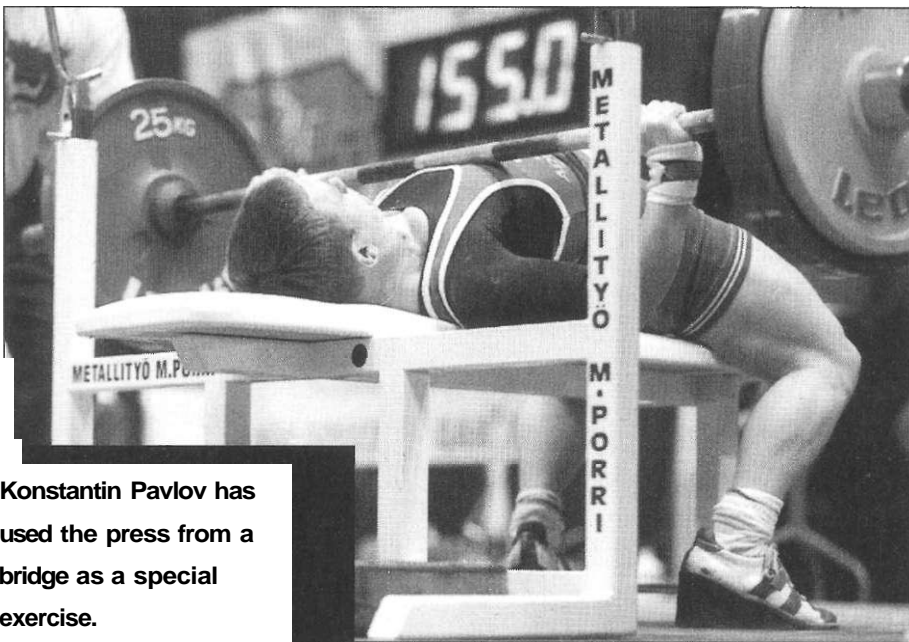
## FOAM DL

Soviet weightlifting great Yuri Vlasov used to say that "his feet burned" when he lifted. If you have a hard time 'rooting' and using your legs in your pull, Louie Simmons has the drill for you.

"Stand on a thin foam pad and it will bring your legs into the lift," promises the Westside boss. You will feel very 'uprooted' on a foam pad. This will force you make an extra effort in 'pushing your feet through the floor'. You will want to squish the foam and feel the solid ground before starting the pull.

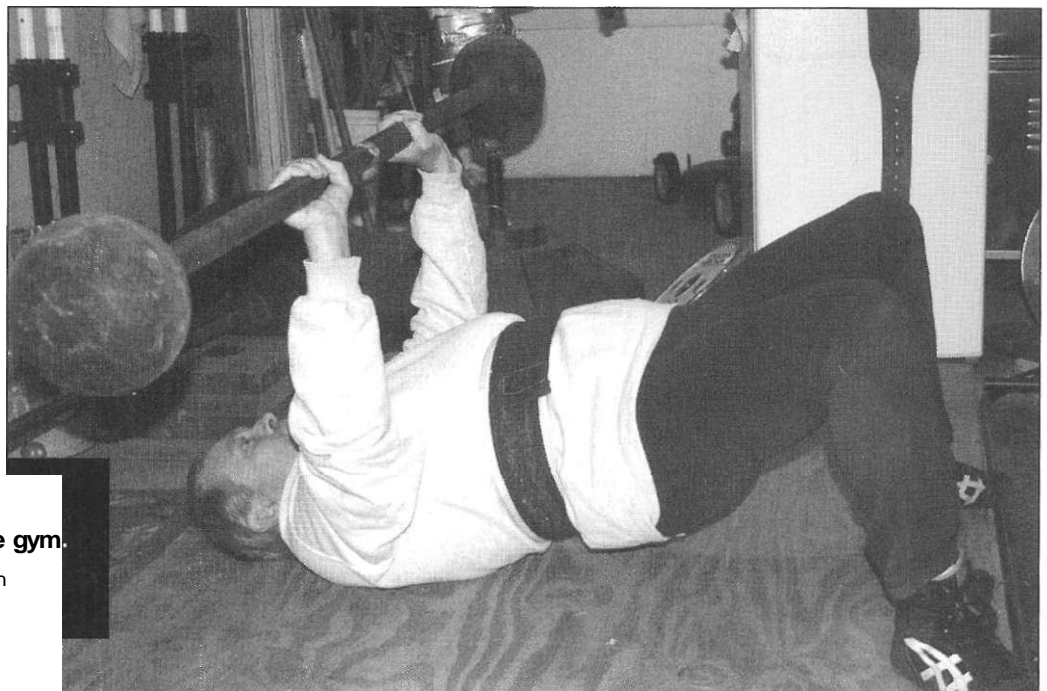
## PRESS FROM A BRIDGE

Igor Derevyanenko, Distinguished Coach of Russia has prepared such powerlifting stars as IPF world bench press champion Konstantin Pavlov with a 414 bench in the 123-pound class. One of his favorite BP assistance exercises is the old-fashioned press from a shoulder bridge. Put your feet up on the bench, lift your hips, take a hand-off, and press.



**Konstantin Pavlov has used the press from a bridge as a special exercise.**

Photo courtesy *Powerlifting USA*



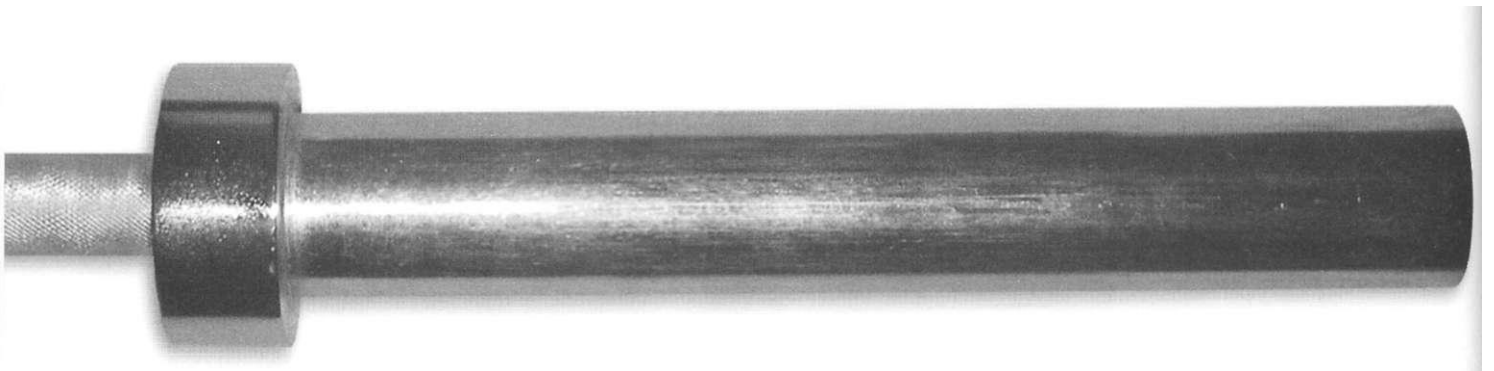
**John McKean bridge presses in his garage gym.**

Photo courtesy John McKean

This is not the safest exercise. Competent spotters and a solid bench that allows you to plant your feet like you mean it are musts. Practicing it on the floor may be a better idea. Watch out for cracked ribs. And make sure to keep your weight on your shoulders rather than on your neck; this is not a neck bridge. Don't even think about taking on this drill if you have a bad neck.

The shoulder bridge press teaches the athlete to use his legs and the elastic properties of the rib cage and builds confidence by enabling him to press a much heavier weight than he can bench. For instance, when Pavlov's BP in gear was 352 he bridge pressed 418 raw. This exercise perfectly compliments the unique Russian bench press technique described in great detail in the bench press chapter. In fact, it is a great way to start practicing that technique.

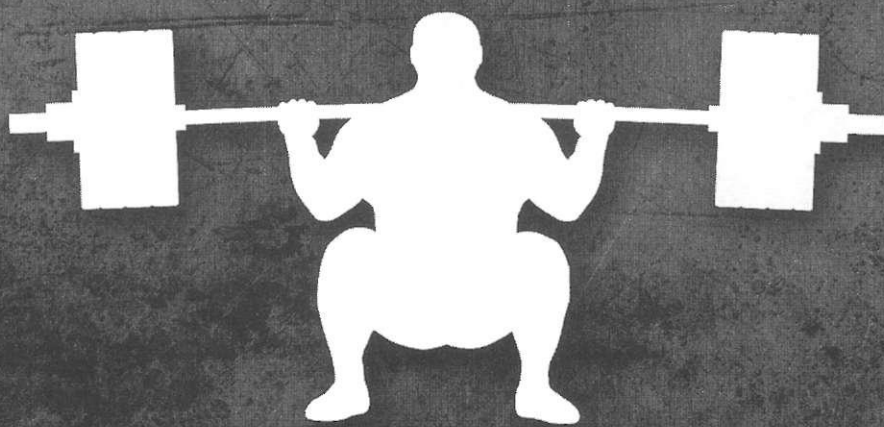
'Same but different' power to you, Comrade!



**CHAPTER**

**II**

**SQUAT**







## CHAPTER II: SQUAT

# The Smolov Nightmare, or How to Add up to 100 Pounds to Your Squat in Thirteen Weeks

In case you got all starry eyed and bushy tailed having read the title, beware that you cannot get something for nothing. Either of the two four week loading blocks of the thirteen week Russian cycle pack more work than most American squatters do in a year, no joke. You shall gain but you shall pay with sweat, blood, and vomit, Comrade.

The super cycle was designed by Master of Sports Sergey Smolov and stacks like this:

1. LAYOFF OR MAINTENANCE TRAINING
2. INTRODUCTORY MICROCYCLE—2 WEEKS
3. BASE MESOCYCLE—4 WEEKS
4. SWITCHING—2 WEEKS
5. INTENSE MESOCYCLE—4 WEEKS
6. TAPER—1 WEEK
7. COMPETITION

The introductory microcycle will bring you up to 90% of your personal best squat in just a week and shall prepare you for the horrors to come.

Every day is Halloween for the next four weeks. It is worth it; the base mesocycle delivers a 10-30kg gain for big boys and 5-7,5kg for lighter lifters.

The 'switching' two-week stretch is dedicated to plyometric and compensatory acceleration training. The idea is to stimulate your nervous system with a different type of stimuli and thus make it more responsive to another round of slow and heavy training. You will also appreciate the chance to lick your wounds after the base mesocycle.

The intense mesocycle is another cruel and unusual four weeks. It is good for another 15-20kg on your squat.

Finally you shall taper with what you could have interpreted as overtraining before you embarked on the Russian cycle but now will gratefully accept as a vacation.

Week thirteen: enter the platform and dominate.

If you are starting Smolov's super cycle after a major layoff, perform the following two-week introductory microcycle. The Russian lifter and author shows how you can reach 90% of your peak condition in just three days:

<b>Day 1</b>	65% x 8/3, 70% x 5, 75% x 2/2, 80% x 1
<b>Day 2</b>	65% x 8/3, 70% x 5, 75% x 2/2, 80% x 1
<b>Day 3</b>	70% x 5/4, 75% x 3, 80% x 2/2, 90% x 1

The percentages are based on your best suitless squat right before the layoff. Spend the next three days of the first intro week doing lunges with the emphasis on maximal stretching of the thighs. During week two squat every other day with 80-85% weights. You must be able to work up to one set of five in that percentage range by the end of the second intro week. Enjoy the pain.

Sergey Smolov insists on including explosive drills into your introductory microcycle: jumps over various obstacles, broad jumps, jump-ups onto a pommel horse, etc. The Russian expert advises that you stay away from depth jumps though; intense plyos can be murder on your knees at your current level of conditioning.

Whatever stage of the cycle you are in, S. Y. Smolov advises to include what Russian Olympic lifters know as *protyazhka*, or a 'long pull', in your warm-up. A *protyazhka* is a snatch without any knee dip whatsoever. Smolov plugs it into a time-tested combo:

1. Snatch grip long pull x 3-5 reps, then
2. Wide grip press behind the neck x 3-5 reps, then
3. Squat with the bar on the shoulders x 3-5 reps.

Smolov's warm-up calls for four to five sets of the above combo. I believe that you would do even better if you ditch back squats in favor of overhead squats. The latter are great for developing squat specific flexibility and enforcing good technique the hard way.

"Abandon hope all ye' who enter here." The inscription on the gates of hell in Dante's Inferno could be applied to the four-week base cycle without a shade of exaggeration. It is a Russian program so you would be naive to expect hitting the squat rack on Monday and dedicating the rest of the week to assistance work at Pizza Hut. You shall squat four times a week, Comrade, whether you like it or not. And in case you are planning on working up to one top set of five or whatever, you've got another thing coming. Expect loading schedules such as seven fives with 80% weights and ten triples with 85% 1RM!

## SMOLOV BASE MESOCYCLE

Week	Monday	Wednesday	Friday	Saturday
1	70% x 9/4	75% x 7/5	80% x 5/7	85% x 3/10
2	(70% + 10kg) x 9/4	(80% + 10kg) x 5/7	(75% + 10kg) x 7/5	(85% + 10kg) x 3/10
3	(70% + 15kg) x 9/4	(75% + 15kg) x 7/5	(80% + 15kg) x 5/7	(85% + 15kg) x 3/10
4	Rest	Rest	Test your max	

You got tired just reading the table, right?

This is an off-season program so the percentages are based on your current 1RM without a suit. If you do not know what it is, make an estimate. If you do not have kilo plates, add twice the recommended number in pounds, e.g. 30 pounds instead of 15kg. Put up your weights at a slow to moderate tempo, dynamic efforts do not belong in this phase.

In the last session you are supposed to work up to your max or near max to see where you are at. If you do not like simulating a contest on a day other than a Saturday you may push the training days one forward: Tuesday, Thursday, Saturday, and Sunday. You may even decide to enter a relatively unimportant meet on the day of the *prikidka* and post conservative attempts lifting raw.

The mad Commie who dreamed up this evil cycle promises that once you have survived these four weeks your legs will turn into car jacks. But no matter how inspired you are by the gains, you are to immediately back off after completing the last workout of the base cycle! The regimen will push you to the limit of your strength and recovery and carrying it on longer than a month guarantees the mother of all overtraining.

A so-called 'switching' semi-mesocycle is now in order to let the body and mind recover before taking on the pre-competition cycle. With the exception of the eccentric squats recommended once or twice a week, all lifts and exercises are now performed with maximum explosion. Series of various jumps and hops, deep squat jumps with a light barbell, etc. are on the Party approved list. So are leg presses with compensatory acceleration and similar drills. Exploding from the sticking point in the squat is another fine exercise for the switching period. "The motto of the

switching program is speed, and speed again," explains Sergey Smolov. For a change of pace as much as anything else.

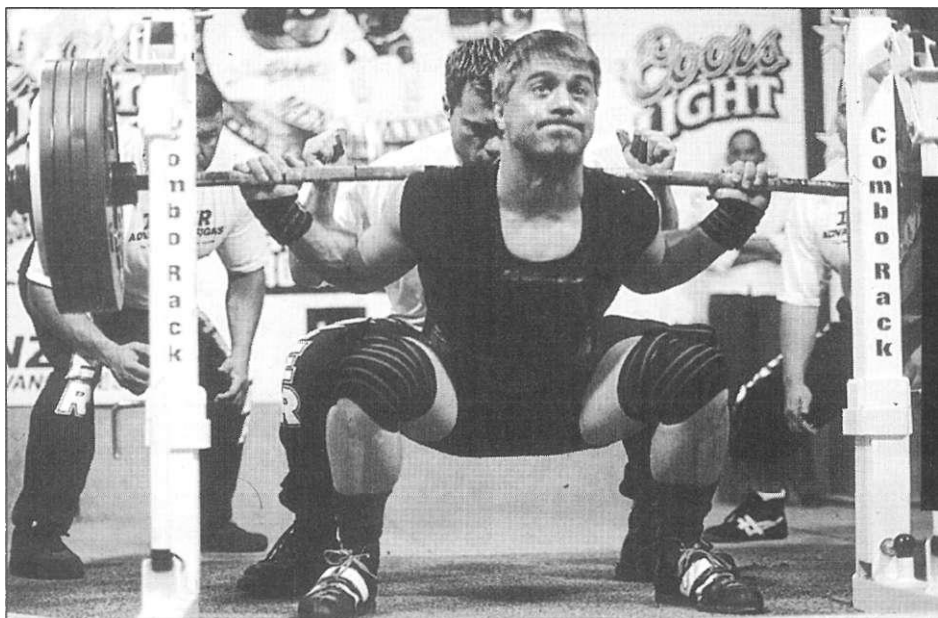
Following the two-week switching phase the Russian instructs the lifter to start another four-week loading cycle. It was designed by weightlifting and powerlifting coach I. M. Feduleyev from Moscow and is responsible for preparing eight nationally ranked lifters in record times. It is good for another 15-20kg on your squat in just a month if you have what it takes to take it on. Here is Feduleyev's program in all its Communist glory:

## FEDULEYEV'S INTENSE MESOCYCLE

Week	Sunday	Tuesday	Friday
1	65% x 3, 75% x 4, 85% x 4/3, 85% x 5	60% x 3, 70% x 3, 80% x 4, 90% x 3, 85% x 5/2	65% x 4, 70% x 4, 80% x 4/5
2	60% x 4, 70% x 4, 80% x 4, 90% x 3, 90% x 4/2	65% x 3, 75% x 3, 85% x 3, 90% x 3/3, 95% x 3	65% x 3, 75% x 3, 85% x 4, 90% x 5/4
3	60% x 3, 70% x 3, 80% x 3, 90% x 5/5	60% x 3, 70% x 3, 80% x 3, 95% x 3/2	65% x 3, 75% x 3, 85% x 3, 95% x 3/4
4	70% x 3, 80% x 4, 90% x 5/5	70% x 3, 80% x 3, 95% x 3/4	75% x 3, 90% x 4, 95% x 4/3

In case you got excited that the number two loading cycle calls for 'only' three squat sessions a week, you must have wilted as soon as you read the numbers. Feduleyev's regimen demands an inhumanly high number of squats in the 81-90% intensity zone: 134 lifts or a whopping 44% of the total load. You are going to top off with three sets of four reps at 95% of your current max, and these numbers mean two things. First, you are going to get unbelievably strong, and second, there will be many moments when you will be wishing you had stuck to your stamp collecting.

If you think that "the Smolov only works for those Russians or Ukrainians who were jumping out of the windows when the IPF came to their Nationals with a surprise drug test," you are wrong. American Dr. David Bracken who squatted 606 at 165 to win the IPF Masters Worlds was among the lifters who proved that the Smolov squat supercycle works for the drug free elite. "After reviewing the volume involved with this program you and your friends will start whining about how ONLY someone on steroids could do so much heavy squatting per week," he wrote in *Powerlifting USA* when introducing his variation of the Smolov. "Well, I thought the same thing until [a lifter at my gym] gave it a try. His squat increase was phenomenal. I have used this program multiple times. Check the USAPL website to see that I have passed numerous drug tests. So, if drug free master and junior lifters can do this program, why can't you?"



**Dr. David Bracken**  
**proves that drug free**  
**lifters and master**  
**lifters can survive the**  
**Smolov and thrive.**

Photo courtesy  
 Powerlifting USA

Lift at a medium tempo in full contest gear. Calculate the percentages from your new max established two weeks earlier, adjusted for the supportive equipment you are now wearing.

The cycle is designed for a lifter hardened by high volume/high intensity training and you are supposed to completely recover between workouts. Note that every week the Tuesday session calls for the greatest load, which is why it earns you two days of rest. If you are not in a good enough shape to handle such a work load and you feel very tired by the end of week two, merciful coach Feduleyev shall let you reduce the weight by 5-7% in all sets without cutting back on the sets or reps.

The above cycles have built great strength, now you are facing the tricky task of peaking it when it counts. Once you are a week away from the meet Smolov recommends the following week-long *podvodka* or taper. Wear full contest gear naturally.

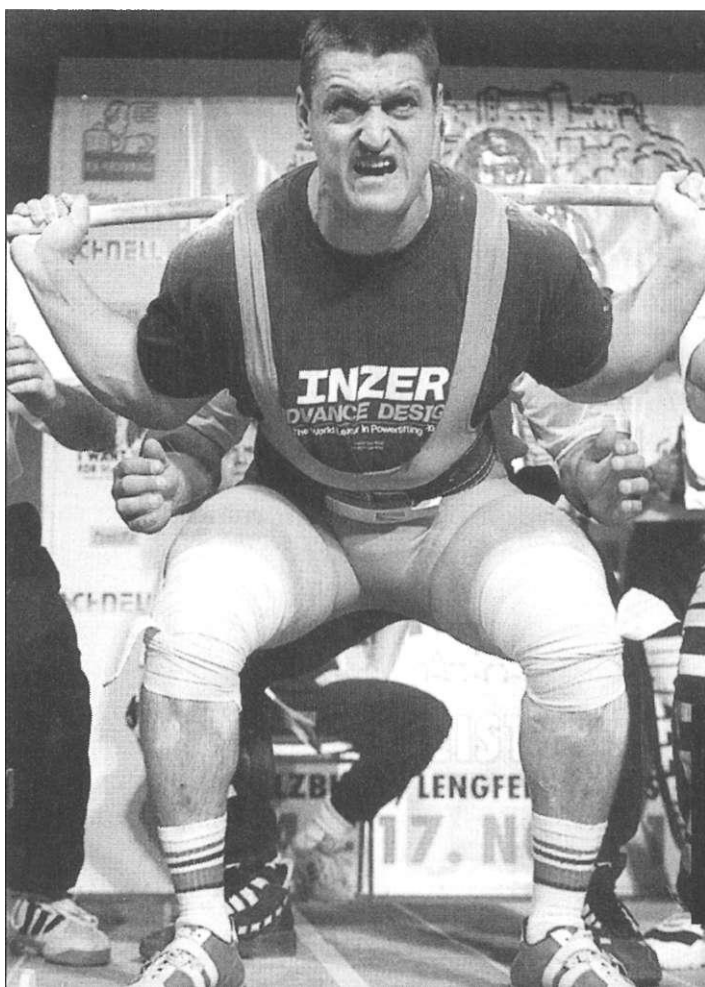
## TAPER

Day	
Sunday	70% x 3, 80% x 3, 90% x 5/2, 95% x 4/3
Monday	Rest
Tuesday	75% x 4, 85% x 4/4
Wednesday	Rest
Thursday	Rest
Friday	Rest
Saturday	Competition

The Russian coach promises that the high load in the beginning of the week shall not negatively affect you. Considering the three months of brutality you have been through, he is probably right. Rest is a relative concept.

Give this Russian super cycle a shot if you have what it takes. Comrade Smolov promises that you will show a result that shall surprise you. Report your gains on the [www.DragonDoor.com](http://www.DragonDoor.com) training forum.

# The Ryabinnikov Plan: Another World Class Russian Squat Cycle



Russian powerlifting programs have two things in common. First, they are mind numbingly boring—a cruel volume in the three competition lifts. Second, they are exceptionally effective. If it is strength that you seek in the gym rather than entertainment, the following squat plan by Oleg Ryabinnikov, Master of Sports International Class is right down your alley.

The plan was designed for building a base in the preparatory period. The author squats twice a week but concedes that you may have to do it less frequently.

**can tell from Vlad Markovsky's  
that Russian squat training is  
evil.**

*courtesy Powerlifting USA*

The cycle is made up of five shorter cycles, each made up with five workouts.

## 1ST CYCLE

You are not supposed to wear any gear except for the belt.

"X" is the weight you can squat raw for two sets of eight reps. 70% of your raw max is a good guess.

Workout 1 "X" x 5/5

Workout 2 ("X" + 10-20kg) x 3/5 (reps/sets)

Workout 3 ("X" - 5-10kg) x 6/4

Workout 4 ("X" + 15-30kg) x 2/4

Workout 5 ("X" + 5-10kg) x 4/5

## 2ND CYCLE

The second cycle is identical, just add 5kg to all your sets.

## 3D CYCLE

Add loose knee wraps. Now "X" is the weight you used in your second workout of the first cycle. That is a 10-20kg gain, not shabby.

Workout 1 "X" x 5/4

Workout 2 ("X" + 10-20kg) x 3/3

Workout 3 ("X" - 5-10kg) x 6/3

Workout 4 ("X" + 15-30kg) x 2/3

Workout 5 ("X" + 5-10kg) x 4/3

## 4TH CYCLE

Add 5kg to all your sets and repeat the third cycle.

## 5TH CYCLE

Now "X" is the weight you used in your second workout of the third cycle. Wrap your knees tighter but not as tight as you would in a meet.

Workout 1 "X" x 5/3

Workout 2 ("X" + 10-20kg) x 3/2

Workout 3 ("X" - 5-10kg) x 6/2

Workout 4 ("X" + 15-30kg) x 2/2

Workout 5 ("X" + 5-10kg) x 4/2

In a table format the cycle looks like this:

## RYABINNIKOV PREPARATORY PERIOD

	Cycle 1	Cycle 2	Cycle 3	Cycle 4	Cycle 5
	Belt only	Belt only	Belt and loose knee wraps	Belt and loose knee wraps	Belt and tighter knee wraps
	X = 70% raw 1RM	Add 5kg to the "X" from cycle 1.	"X" is the weight from workout 2, cycle 1.	Add 5kg to the "X" from cycle 3.	"X" is the weight from workout 2, cycle 3.
Workout 1	"X" x 5/5	"X" x 5/5	"X" x 5/4	"X" x 5/4	"X" x 5/3
Workout 2	("X" + 10-20kg) x 3/5	("X" + 10-20kg) x 3/5	("X" + 10-20kg) x 3/3	("X" + 10-20kg) x 3/3	("X" + 10-20kg) x 3/2
Workout 3	("X" - 5-10kg) x 6/4	("X" - 5-10kg) x 6/4	("X" - 5-10kg) x 6/3	("X" - 5-10kg) x 6/3	("X" - 5-10kg) x 6/2
Workout 4	("X" + 15-30kg) x 2/4	("X" + 15-30kg) x 2/4	("X" + 15-30kg) x 2/3	("X" + 15-30kg) x 2/3	("X" + 15-30kg) x 2/2
Workout 5	("X" + 5-10kg) x 4/5	("X" + 5-10kg) x 4/5	("X" + 5-10kg) x 4/3	("X" + 5-10kg) x 4/3	("X" + 5-10kg) x 4/2

Naturally, if you do not have kilo plates, just multiply the given numbers by two and add that many pounds.



Comrade Ryabinnikov gives you a range rather than a rigid number when advising you how much weight to add to the "X". Make that call depending on your SQ numbers and the weight class. Obviously, heavier lifters with bigger squats should add more and lighter ones less. In my opinion, most lifters will be better off taking the largest jumps allowed by the program. The Ryabinnikov plan is

hard but not unrealistic. Incidentally, if you consider testing your manhood with the Smolov squat cycle in the future, the Ryabinnikov, being half as brutal, will build you up to it.



Let us look at the example of a 110kg lifter named Bob with a 265kg raw SQ PR to see how this works. If he ambitiously decides to add the highest recommended numbers in the Russian's range (and subtract the highest numbers as well), here is what Bob will accomplish in twelve and a half weeks, provided he squats twice a week. Or in seventeen weeks if he squats three times in two weeks.

## SAMPLE POWERLIFTING CYCLE BASED ON A 265KG MAX SQ AND HIGHEST RECOMMENDED JUMPS

	Cycle 1	Cycle 2	Cycle 3	Cycle 4	Cycle 5
	Belt only	Belt only	Belt and loose knee wraps	Belt and loose knee wraps	Belt and tighter knee wraps
	X = 185	X = 190	X=205	X=210	X=225
Workout 1	185 x 5/5	190 x 5/5	205 x 5/4	210 x 5/4	225 x 5/3
Workout 2	205 x 3/5	210 x 3/5	225 x 3/3	230 x 3/3	245 x 3/2
Workout 3	180 x 6/4	185 x 6/4	200 x 6/3	205x 6/3	220 x 6/2
Workout 4	215 x 2/4	220 x 2/4	235 x 2/3	240 x 2/3	255 x 2/2
Workout 5	195 x 4/5	200 x 4/5	215 x 4/3	220 x 4/3	235 x 4/2

In the end of the cycle a noticeably thicker Bob is contemplating his chafing thighs and marveling at his progress. Having done 255 x 2/2 he should be good for a single in the 285-290kg ballpark. At first glance it appears that Bob has added around 50-70 pounds to his squat, 585 to 635. The gains are a little more modest than that because he has added knee wraps but they are still impressive for an experienced lifter. Bob will squeeze into his squat suit, run a peaking cycle, then watch out!

## THE LOGIC BEHIND THE MADNESS

You may stop right now, just plug your numbers into the table and squat away. But I believe you will do better if you understand what you are doing.

Alexander Suvorov, a great military leader of imperial Russia, used to say that "Every soldier must understand his maneuver."

Russian coaches are convinced that the load (volume, intensity, reps, etc.) needs to be varied on different levels—every workout, every week, every month, etc. for reasons I have explained in *Beyond Bodybuilding*. Accordingly, Ryabinnikov has a few patterns going, some short, some long. He alternates workouts in the 4-6 rep range favored by Russian squatters, where lasting strength is built with 2-3 rep heavier workouts.

Volume also waves up and down from workout to workout:

## VOLUME, NUMBER OF LIFTS

	Cycle 1	Cycle 2	Cycle 3	Cycle 4	Cycle 5
<b>Workout 1</b>	<b>25</b>	<b>25</b>	<b>20</b>	<b>20</b>	<b>15</b>
<b>Workout 2</b>	<b>15</b>	<b>15</b>	<b>9</b>	<b>9</b>	<b>6</b>
<b>Workout 3</b>	<b>24</b>	<b>24</b>	<b>18</b>	<b>18</b>	<b>12</b>
<b>Workout 4</b>	<b>8</b>	<b>8</b>	<b>6</b>	<b>6</b>	<b>4</b>
<b>Workout 5</b>	<b>20</b>	<b>20</b>	<b>12</b>	<b>12</b>	<b>8</b>

While the reps change from workout to workout, they stay the same in the workout of the same number in all cycles. But the weights go up and the sets go down. Here is an example:

Starting 1RM 265kg <b>Workout 1</b>	Cycle 1	Cycle 2	Cycle 3	Cycle 4	Cycle 5
	<b>185 x 5/5</b>	<b>190 x 5/5</b>	<b>195 x 5/4</b>	<b>200 x 5/4</b>	<b>200 x 5/3</b>

Now add up the number of lifts per cycle:

<b>Total per cycle</b>	Cycle 1	Cycle 2	Cycle 3	Cycle 4	Cycle 5
	<b>92</b>	<b>92</b>	<b>65</b>	<b>65</b>	<b>45</b>

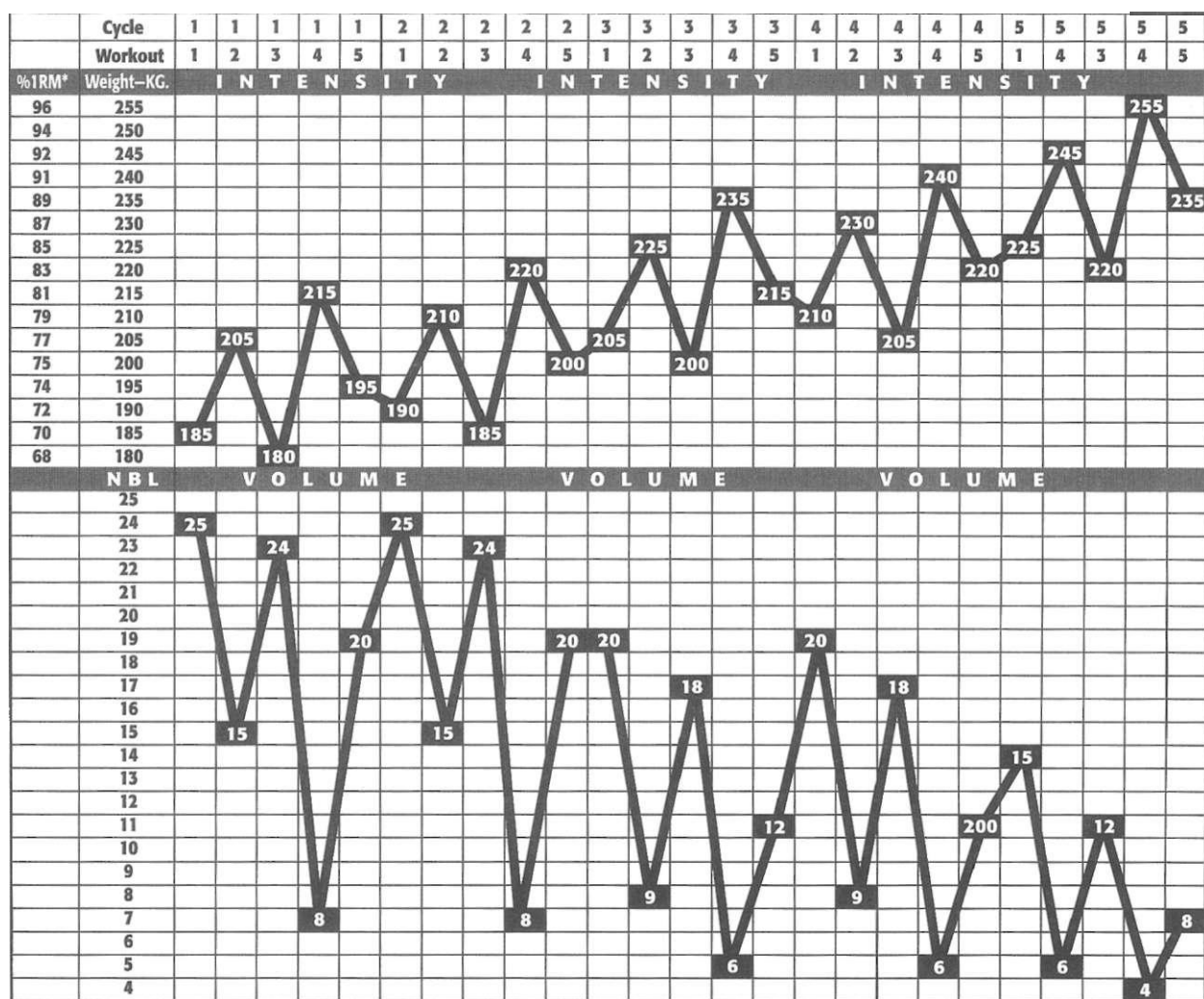
You will see that while the intensity is climbing Ryabinnikov cuts the volume by approximately 30% after the second cycle. He reduces the remaining volume by another 30% (a 50% reduction from the original volume) for the fifth cycle. The intensity is meanwhile going up. A classic Matveev pattern.

If you want to understand the progression and the logic of the cycle better refer to the sample cycle matrix on the next page.

When you are done taking the Ryabinnikov cycle apart you will realize that it is not fancy or trendy. Just another intelligent application of the classic 1960s periodization model: the volume goes down and the intensity goes up over a period of months while jumping up and down on a daily and weekly basis. Add hard work and be strong.

# SAMPLE CYCLE MATRIX

BASED ON A 265KG MAX SQ AND HIGHEST RECOMMENDED JUMPS



\* The percentages of 1RM apply to the particular example. They may be different, depending on the weight jumps you take and your max.

# Half a Year in the Squat Rack

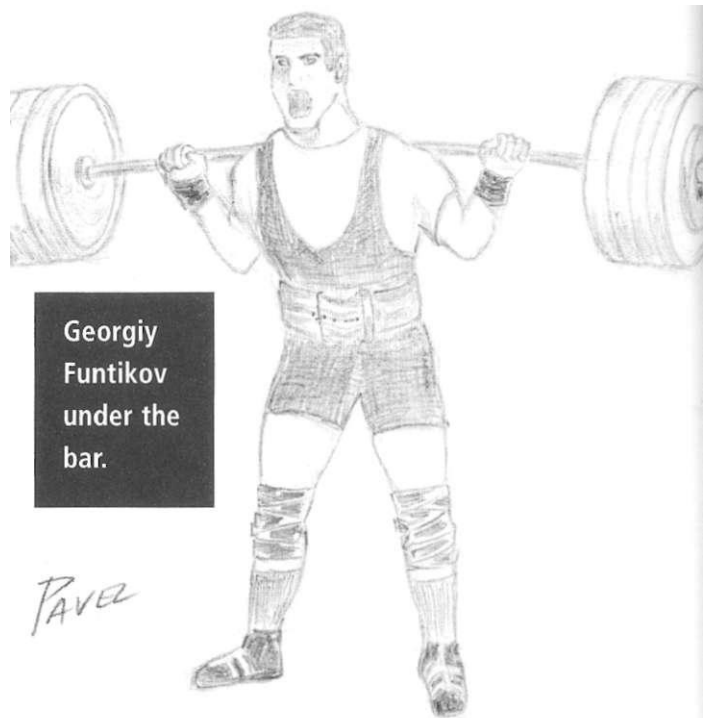
" SHARP KNURLING DIGS INTO MY SHOULDERS,  
INDIFFERENT IRON RIPS FABRIC AND SKIN.  
BUT MUSCLES ARE SOLID AND TENDONS ARE STRONG,  
I MUST OVERCOME THE GRAVITY'S PULL."

- GEORGIY Funtikov

Georgiy Funtikov did not beat around the bush and won a junior IPF world powerlifting title after just five years of training. His squat plan is as laconic as his poem.

The Russian is no friend of linear periodization. "Typically a classic strength cycle starts with... 70% weights (such training stimulates myofibrillar growth) and ends with peaking with weights reaching 95-100% of the maximum... As soon as you are approaching the peak, you are losing out in muscle growth and vice versa." So Funtikov set out to design a squat plan that addresses the hypertrophy and neural components of strength in every workout. The former is accomplished with two, at the most three, sets of three to five reps in the 75-85% intensity zone, in full gear. The latter is taken care of by a couple of sets of partial squats with 90-130% loads. The rest intervals are at least 5min long. Funtikov generously takes as much as 20-30min between sets in his hardest workouts.

The champ feels strongly about doing only two work sets of squats. He asserts that higher volume only increases special endurance, the ability to do many sets with a relatively heavy weight. He echoes Marty Gallagher who prefers to call it a day after one or two hard sets. "I think you taught yourself to be able to handle 85% weights for



Georgiy  
Funtikov  
under the  
bar.

a protracted amount of time," Marty told me after I had finished a cycle with multiple sets of five. "Being able to do six sets within a workout with a high percentage poundage would be great training if we were entering a competition where the rules stated we needed to handle 80 to 95% for multiple sets. If, however, the competition is based on handling a 105% weight for a single rep, perhaps that requires a different training prescription..."

With the full squats out of the way, load up the bar with a supramaximal poundage in a power rack. Unrack and walk out the weight with perfect technique—honing this part of the lift is one of the reasons Funtikov practices this exercise—and lower it to the pins. The Russian lifter likes to go down to 40% of the competition depth on heavy days and 5cm or two inches deeper on light days.

Georgiy teaches to rest the bar on the pins, then drive up. He stresses that unless you have descended in a perfect groove, the barbell is not going anywhere. This technical precision is another reason for this exercise. In my opinion you would be better off gently touching the pins and immediately standing up. We are not training the deadlift here.

Like a 1970s American powerlifter, Funtikov wraps up with leg curls for 3-4 sets of 8-15 reps and calf work for the same sets and reps. He is also very American in his views on recovery and frequency. The Russian advocates training the squat once a week, alternating heavy and light weeks. On light days reduce the poundage in the competition style squats by 5% and up the reps a little. In the partials go two inches deeper and cut the poundage by 10-30%.

## FUNTIKOV SQUAT CYCLE

	Full SQ	Partial SQ
1	75% x 5, 80% x 4	100% x 4/2 (reps/sets)
2	70% x 6, 75% x 5	90% x 3/2
3	76% x 5, 81% x 4	102% x 4/2
4	71% x 6, 76% x 5	90% x 3/2
5	77% x 5, 82% x 4	104% x 4/2
6	72% x 6, 77% x 5	90% x 3/2
7	78% x 5, 83% x 4	106% x 4/2
8	73% x 6, 78% x 5	90% x 3/2
9	79% x 4, 84% x 3	108% x 4/2
10	74% x 5, 79% x 4	90% x 3/2
11	80% x 4, 85% x 3	110% x 3/2
12	75% x 5, 80% x 4	90% x 3/2
13	81% x 4, 86% x 3	112% x 3/2
14	76% x 4, 81% x 3	90% x 3/2
15	82% x 4, 87% x 3	114% x 3/2
16	77% x 4, 82% x 3	90% x 3/2
17	83% x 4, 88% x 3	116% x 3/2
18	78% x 4, 83% x 3	90% x 3/2
19	84% x 4, 89% x 3	118% x 2/2
20	79% x 4, 84% x 3	90% x 3/2
21	85% x 4, 90% x 3	120% x 2
22	2/3	-----
23	2/2	-----
24	Rest for 10 days (a couple of easy workouts) before the meet.	

The author does not specify the percentages for the last two workouts. This is peak time and you need to individualize. If you prefer to stick to Funtikov's numbers, in a similar cycle he has used 86% for three doubles in workout #22 and 90% for two doubles in workout #23.

## INDIVIDUALIZING TRAINING FREQUENCY ACCORDING TO FUNTIKOV

Less rest	More rest
Preponderance of slow twitch fibers	Preponderance of fast twitch fibers
Fast metabolism	Slow metabolism
Bodyweight over 100kg	Bodyweight under 80kg
Naturally high androgen level *	Naturally low androgen level **
Anabolic steroid usage greater than in "therapeutic" doses *	No anabolic steroid use **
Well-organized lifestyle	Unsettled lifestyle
* Increasing the load is preferable to compressing the cycle.	
** You may lower the load instead of extending the cycle.	

Funtikov's is a rare cycle, which promises a very modest gain after a very long haul. The right call if you are on the top of the sport and are fighting for every kilo but too conservative for most. In my opinion, an up and coming lifter should compress the cycle to twelve or sixteen weeks by increasing the SQ frequency to twice a week or three times in two weeks. If you have the patience to stick to a twenty-four week cycle, you will need to be more aggressive about your expectations. Plugging a higher max number from the start is not a good idea as the cycle starts with a not too shabby 75% x 5 and 80% x 4. Instead, take a page from Dr. Fred Hatfield's book and up your estimated max every so often as the cycle progresses. For instance, an intermediate athlete can safely add five pounds to his 1RM every heavy workout and calculate the training percentages based on these new numbers. If your starting max is 500 pounds and you add a nickel every other week, your estimated 1RM will grow to 555 by the last heavy workout and your 90% x 3 will be done with your old max of 500, a realistic six-month goal for an intermediate PLer.

I believe that Georgiy Funtikov's plan has a lot of merit. Its overload approach is science rather than ego based. The competition squat loading is varied enough to prevent accommodation, yet it does not bore with light weights or push to the edge of early peaking or overtraining. Due to its efficiency, the program would suit not only a powerlifter but also an athlete from another sport. Squat power to you!



# The 'Squat Survival System'

What do you get if you cross the Russian and the American powerlifting methodologies?—Grachev's oddly named 'Honduras survival system'. Russian volume meets American frequency.

Alexander Grachev is a WPC 100kg class world champion. He works at an impossibly sound-ing sports research lab, the Scientific Research Institute of Problems of Elite Sport, and is highly opinionated about training. He takes shots at Verkhoshansky, Zatsiorsky, Medvedev, Sheyko, and other untouchables.

Grachev claims the 'Russian system' is empirically, rather than scientifically based. Sheyko has developed his methodology based on Medvedev's and it does not work in the context of power-lifting, contends Grachev. The main difference, he says, is that the powerlifts are a lot slower than the Olympic lifts. Moreover, according to this Russian PL iconoclast, Sheyko's plans aimed at beginning and intermediate athletes are so severe that they would make experienced drug using PLers sweat. He points out the many "How to train following Sheyko's system and survive" Internet forum threads. Grachev is convinced that WL based PL training methodologies only encourage beginners to take steroids. The champ does not pretend to be drug free but he is certain that a powerlifter has no business taking anything until after he has made the Master of Sports rank.

Grachev blames overtraining for his old pec tear, which, although it has not stopped him from winning a world title, has kept his bench out of the world league. It was not a huge bench that did it but dumbbell flies. "Simple overtraining and ignorance of proper training methodology so typ-ical of many young athletes. I was convinced that the more often I would train the chest muscles, the stronger they would get so I busted my tail like crazy. A mistaken belief typical of a newbie."

Nevertheless, his squat and deadlift have won the day. The champ surprisingly attributes his success to training the slow twitch muscle fibers. "The leg muscles have a great many slow twitch fibers and the majority of the back muscles are slow. Practically no one trains them... I give both the slow and the fast fibers their due." The following training plan Alexander Grachev designed for his preparation for the WPC Worlds will show you how he puts his ideas into practice.

Based on the last European championship, Alexander knew that he was not lacking strength in the pull but that his technique needed work. So Monday is the squat and light deadlift day. The legs get smoked and the dead gets some grooving. Note that he pulls sumo in a stance similar to his squat's, so his deadlift plan is not likely to work for a conventional puller.

The squat volume is wicked, peaking at 120 lifts per workout! Grachev feels your pain and tells you that it is okay if you only bag six to eight. Fortunately, you will be squatting only once a week.

The SQ and DL percentages were based on the planned first attempt, which for Grachev *was* very close to his max. Don't try it at home. Take a long, hard look at your recent training sessions and select numbers that are realistic for you. Workout #37 calls for six triples with 95%, so be forewarned. Be especially conservative if you are not used to doing this many work sets. As Marty Gallagher told me after having gone through a similar program—Smolov's base cycle done once a week—"It builds a different type of strength..."

The BP percentages were based on the projected max and the speed bench percentages on the raw max. Although the plan specified 60% for the speed benches, Grachev went 20kg heavier towards the end of the cycle, adjusting intuitively.

All squats were done in a suit, which meant that with weights lighter than 80% the lifter was not even hitting the legal depth. At 80% he added loose wraps. With the exception of two workouts, the deadlift was done without gear—no suit, no belt, nothing. In the beginning all deads were done from a 5cm (2") deficit.

Bench lockouts were done in a shirt off a piece of rubber 5-6cm (2" or a little more) thick. The weights were selected instinctively and Grachev ended up going up 40kg over the length of the cycle. He always jumped 10kg between sets.

Shoulder raises were done for the sake of pump and recovery with extremely light dumbbells, 6-8kg. Ditto for the biceps; Grachev curled 12kg dumbbells. Triceps pushdowns, on the other hand, were trained all out. The Russian hung a pair of 32kg kettlebells on his waist so he would not be lifted off the ground.

## ALEXANDER GRACHEV'S TRAINING PLAN FOR THE WPC WORLD'S

### WORKOUT 1 (MONDAY)

1. SQ—55% x 8/8
2. DL standing on a 2" platform—44% x 5, 50% x 5, 55% x 5/3 (reps/sets)
3. Power clean—6/5
4. Bent over row—6/5
5. One arm dumbbell row—6/5
6. Shrug—6/5

### WORKOUT 2 (WEDNESDAY)

1. BP lockout in a shirt—4,3,2,1
2. Dumbbell raise (front, side, and bent over)—10/3-6
3. Triceps pushdown—8-10/4-6
4. Dumbbell curl—8-10/4-6



**WORKOUT #3 (FRIDAY)**

1. DL standing on a 2" platform—44% x 5, 52% x 5, 60% x 5, 66% x 5, 44% x 5
2. Power clean—6/5
3. Bent over row—6/5
4. Shrug—6/5
5. Speed BP—60% of raw max x 3/10, rest 20-30sec between sets
6. Dumbbell raise (front, side, and bent over)—10/3-6
7. Triceps pushdown—8-10/4-6
8. Dumbbell curl—8-10/4-6

**WORKOUT #4**

1. SQ—55% x 8/10
2. DL standing on a 2" platform—44% x 5, 50% x 5, 55% x 5/3
3. Power clean—6/5
4. Bent over row—6/5
5. Shrug—6/5

**WORKOUT #5**

1. BP lockout in a shirt—4,3,2,1
2. Dumbbell raise (front, side, and bent over)—10/3-6
3. Triceps pushdown—8-10/4-6
4. Dumbbell curl—8-10/4-6

**WORKOUT #6**

1. DL standing on a 2" platform—44% x 5, 55% x 5, 64% x 5, 70% x 5, 44% x 5
2. Power clean—6/5
3. Bent over row—6/5
4. Shrug—6/5
5. Speed BP—60% of raw max x 3/10, rest 20-30sec between sets
6. Dumbbell raise (front, side, and bent over)—10/3-6
7. Triceps pushdown—8-10/4-6
8. Dumbbell curl—8-10/4-6

**WORKOUT #7**

1. SQ—60% x 6/12
2. DL standing on a 2" platform—44% x 5, 55% x 5/4
3. Power clean—6/5
4. Bent over row—6/5
5. Shrug—6/5

**WORKOUT #8**

1. BP lockout in a shirt—4,3,2,1
2. Dumbbell raise (front, side, and bent over)—10/3-6
3. Triceps pushdown—8-10/4-6
4. Dumbbell curl—8-10/4-6

W O R K O U T # 9

1. DL standing on a 2" platform—44% x 5, 55% x 5, 64% x 5, 73% x 5, 44% x 5
2. Power clean—6/5
3. Bent over row—6/5
4. Shrug—6/5
5. Speed BP—60% of raw max x 3/10, rest 20-30sec between sets
6. Dumbbell raise (front, side, and bent over)—10/3-6
7. Triceps pushdown—8-10/4-6
8. Dumbbell curl—8-10/4-6

W O R K O U T # 1 0

1. SQ—65% x 5/12
2. DL standing on a 2" platform—44% x 5, 55% x 5/4
3. Power clean—6/5
4. Bent over row—6/5
5. Shrug—6/5

W O R K O U T # 1 1

1. BP lockout in a shirt—4,3,2,1
2. Dumbbell raise (front, side, and bent over)—10/3-6
3. Triceps pushdown—8-10/4-6
4. Dumbbell curl—8-10/4-6

W O R K O U T # 1 2

1. DL standing on a 2" platform—49% x 5, 66% x 5, 75% x 5, 49% x 5/2
2. Power clean—6/5
3. Bent over row—6/5
4. Shrug—6/5
5. Speed BP—60% of raw max x 3/10, rest 20-30sec between sets
6. Dumbbell raise (front, side, and bent over)—10/3-6
7. Triceps pushdown—8-10/4-6
8. Dumbbell curl—8-10/4-6

W O R K O U T # 1 3

1. SQ—70% x 6/15
2. DL standing on a 2" platform—49% x 5, 57% x 5/3, 49% x 5
3. Power clean—6/5
4. Bent over row—6/5
5. Shrug—6/5

W O R K O U T # 1 4

1. BP lockout in a shirt—4,3,2,1
2. Dumbbell raise (front, side, and bent over)—10/3-6
3. Triceps pushdown—8-10/4-6
4. Dumbbell curl—8-10/4-6

**WORKOUT #15**

1. DL standing on a 2" platform—49% x 5, 66% x 5, 75% x 5, 71% x 5, 49% x 5
2. Power clean—6/5
3. Bent over row—6/5
4. Shrug—6/5
5. Speed BP—60% of raw max x 3/10, rest 20-30sec between sets
6. Dumbbell raise (front, side, and bent over)—10/3-6
7. Triceps pushdown—8-10/4-6
8. Dumbbell curl—8-10/4-6

**WORKOUT #16**

1. SQ—75% x 8/15
2. DL standing on a 2" platform—49% x 5, 57% x 5/3, 49% x 5
3. Power clean—6/5
4. Bent over row—6/5
5. Shrug—6/5

**WORKOUT #17**

1. BP lockout in a shirt—4,3,2,1
2. Dumbbell raise (front, side, and bent over)—10/3-6
3. Triceps pushdown—8-10/4-6
4. Dumbbell curl—8-10/4-6

**WORKOUT #18**

1. DL standing on a 2" platform—49% x 5, 68% x 5, 79% x 5, 55% x 5, 49% x 5
2. Power clean—6/5
3. Bent over row—6/5
4. Shrug—6/5
5. Speed BP—60% of raw max x 3/10, rest 20-30sec between sets
6. Dumbbell raise (front, side, and bent over)—10/3-6
7. Triceps pushdown—8-10/4-6
8. Dumbbell curl—8-10/4-6

**WORKOUT #19**

1. SQ—65% x 5/10
2. DL standing on a 2" platform—49% x 5, 57% x 5/4
3. Power clean—6/5
4. Bent over row—6/5
5. Shrug—6/5

**WORKOUT #20**

1. BP lockout in a shirt—4,3,2,1
2. Dumbbell raise (front, side, and bent over)—10/3-6
3. *Triceps pushdown—8-10/4-6*
4. Dumbbell curl—8-10/4-6

**WORKOUT #21**

1. DL standing on a 2" platform—49% x 5, 68% x 5, 80% x 5, 55% x 5, 49% x 5
2. Power clean—6/5
3. Bent over row—6/5
4. Shrug—6/5
5. Speed BP—60% of raw max x 3/10, rest 20-30sec between sets
6. Dumbbell raise (front, side, and bent over)—10/3-6
7. Triceps pushdown—8-10/4-6
8. Dumbbell curl—8-10/4-6

**WORKOUT #22**

1. SQ—80% x 4/15
2. DL—44% x 5, 60% x 3, 70% x 3/3
3. Pullup—6/5
4. Back extension—6/5

**WORKOUT #23**

1. BP lockout in a shirt—4,3,2,1
2. Dumbbell raise (front, side, and bent over)—10/3-6
3. Triceps pushdown—8-10/4-6
4. Dumbbell curl—8-10/4-6

**WORKOUT #24**

1. DL—44% x 5, 60% x 3, 70% x 2, 80% x 1, 90% x 1, 82% x 3
2. Pullup—6/5
3. Back extension—6/5
4. Speed BP—60% of raw max x 3/10, rest 20-30sec between sets
5. Dumbbell raise (front, side, and bent over)—10/3-6
6. Triceps pushdown—8-10/4-6
7. Dumbbell curl—8-10/4-6

**WORKOUT #25**

1. SQ—85% x 3/12
2. DL—44% x 5, 60% x 3, 70% x 3/3
3. Pullup—6/5
4. Back extension—6/5

**WORKOUT #26**

1. BP—69% x 5, 79% x 2, 89% x 2, 86% x 1 paused
2. Dumbbell raise (front, side, and bent over)—10/3-6
3. Triceps pushdown—8-10/4-6
4. Dumbbell curl—8-10/4-6

**WORKOUT #27**

1. DL—44% x 5, 60% x 3, 70% x 2, 84% x 1, 94% x 1, 86% x 3
2. Pullup—6/5
3. Back extension—6/5
4. BP—69% x 5, 79% x 2, 89% x 2, 97.5% x 2/3
5. Dumbbell raise (front, side, and bent over)—10/3-6
6. Triceps pushdown—8-10/4-6
7. Dumbbell curl—8-10/4-6

**WORKOUT #28**

1. SQ—90% x 3/8
2. DL—44% x 5, 60% x 3, 74% x 3/3
3. Pullup—6/5
4. Back extension—6/5

**WORKOUT #29**

1. BP—71% x 5, 81% x 3, 89% x 2/3
2. Dumbbell raise (front, side, and bent over)—10/3-6
3. Triceps pushdown—8-10/4-6
4. Dumbbell curl—8-10/4-6

**WORKOUT #30**

1. DL—44% x 5, 60% x 3, 74% x 3, 90% x 1, 94% x 1, 90% x 3
2. Pullup—6/5
3. Back extension—6/5
4. BP—69% x 5, 79% x 2, 89% x 2, 97.5% x 2/3
5. Dumbbell raise (front, side, and bent over)—10/3-6
6. Triceps pushdown—8-10/4-6
7. Dumbbell curl—8-10/4-6

**WORKOUT #31**

1. SQ—65% x 5/6
2. DL—44% x 5, 60% x 3, 74% x 3/3
3. Pullup—6/5
4. Back extension—6/5

**WORKOUT #32**

1. BP—69% x 5, 80% x 2, 92.5% x 2/3, 91% x 1 paused
2. Dumbbell raise (front, side, and bent over)—10/3-6
3. Triceps pushdown—8-10/4-6
4. Dumbbell curl—8-10/4-6

**WORKOUT #33**

1. DL in full gear—44% x 5, 64% x 3, 80% x 2, 92% x 1, 101% x 1, 93% x 3
2. Pullup—6/5
3. Back extension—6/5
4. BP—71% x 5, 81% x 3, 92.5% x 3, 96% x 2/3
5. Dumbbell raise (front, side, and bent over)—10/3-6
6. Triceps pushdown—8-10/4-6
7. Dumbbell curl—8-10/4-6

**WORKOUT #34**

1. SQ—90% x 3/10
2. DL—44% x 5, 76% x 3/4
3. Pullup—6/5
4. Back extension—6/5

**WORKOUT #35**

1. BP—71% x 5, 81% x 3, 92.5% x 2/5
2. Dumbbell raise (front, side, and bent over)—10/3-6
3. Triceps pushdown—8-10/4-6
4. Dumbbell curl—8-10/4-6

**WORKOUT #36**

1. DL—44% x 5, 70% x 3, 84% x 2, 94% x 1, 103% x 1, 96% x 3
2. Pullup—6/5
3. Back extension—6/5
4. BP—71% x 5, 81% x 2, 93% x 2, 100% x 2/3
5. Dumbbell raise (front, side, and bent over)—10/3-6
6. Triceps pushdown—8-10/4-6
7. Dumbbell curl—8-10/4-6

**WORKOUT #37 (TWELVE DAYS BEFORE THE MEET)**

1. SQ—95% x 3/6
2. DL in full gear—44% x 5, 60% x 1, 80% x 1/3
3. Pullup—6/5
4. Back extension—6/5

**WORKOUT #38 (TEN DAYS BEFORE THE MEET)**

1. BP—71% x 5, 81% x 2, 93% x 1, 100% x 1, 105% x 1, 97.5% x 3
2. Dumbbell raise (front, side, and bent over)—10/3-6
3. Triceps pushdown—8-10/4-6
4. Dumbbell curl—8-10/4-6

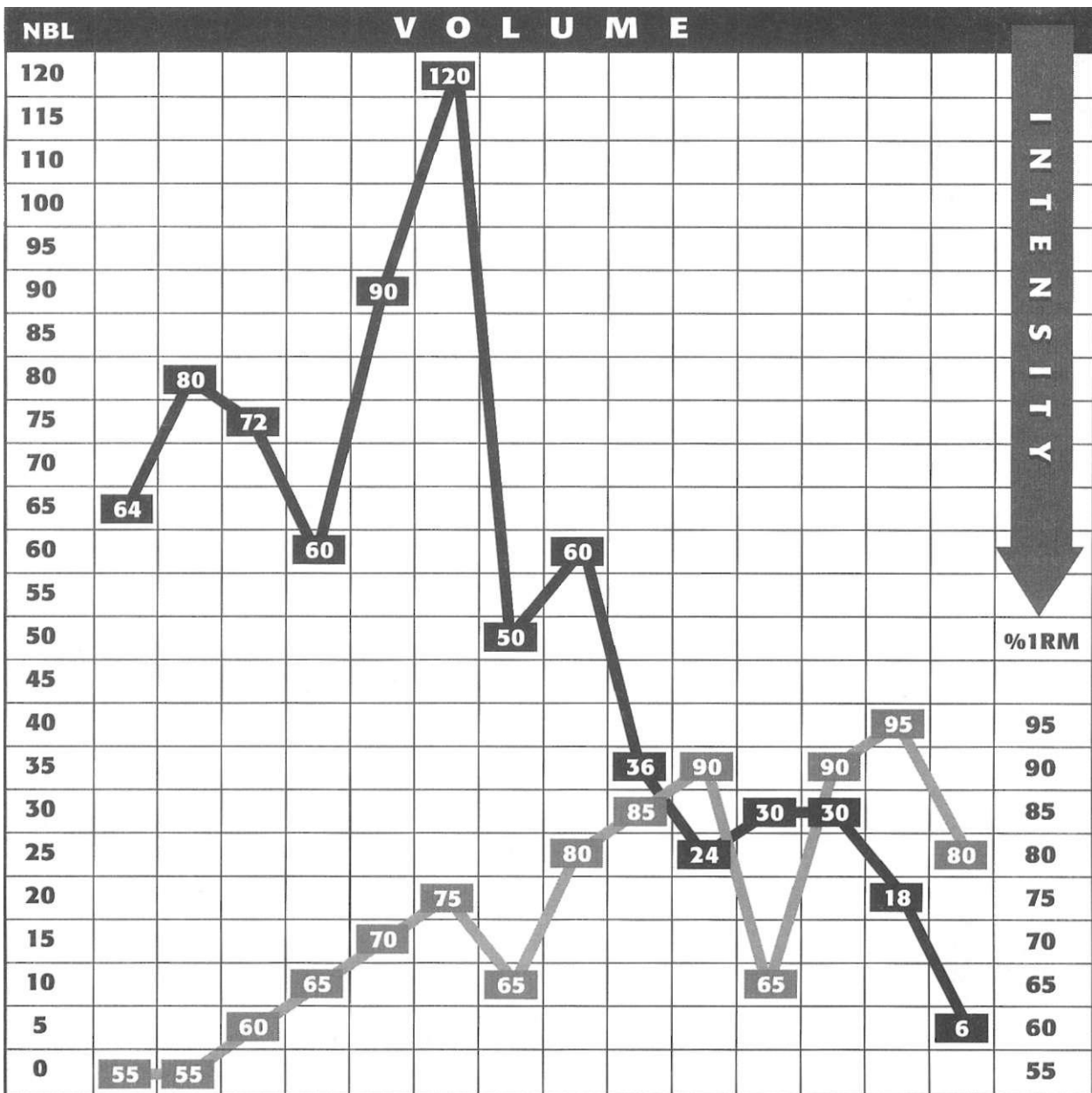
WORKOUT # 39 (EIGHT DAYS BEFORE THE MEET)

1. BP—69% x 5, 79% x 2, 90% x 2/3

WORKOUT # 40 (FIVE DAYS BEFORE THE MEET)

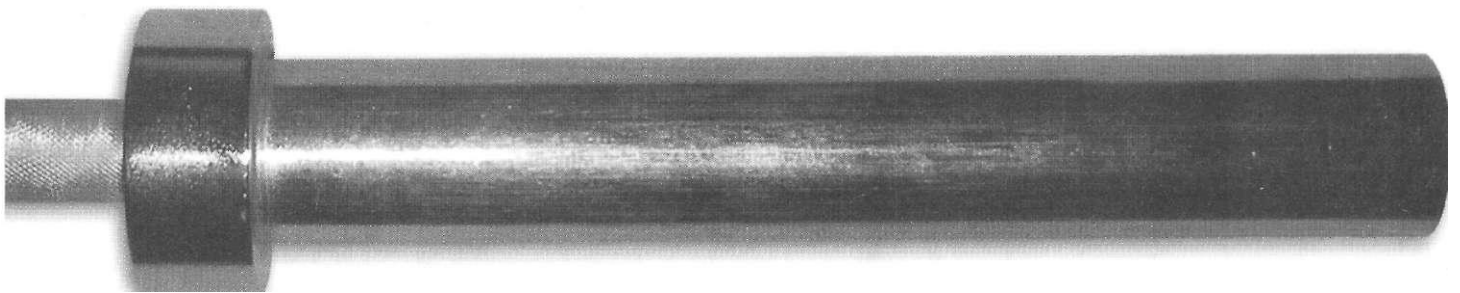
1. SQ—80% x 2/3

ALEXANDER GRACHEV'S  
"SURVIVAL SYSTEM" FOR THE SQUAT



The way Grachev cycles his load in the squat is worth noting.

The above squat plan is great for anyone who wants to gain muscle, not just powerlifters. It makes an excellent prep for the Smolov. The "survival squat system" is also perfect for a Pler who has gone stale on any type of a program. If you have been following a Coan type routine, you will shock your system with volume. If you have been on Sheyko, a radically reduced frequency will rejuvenate you. If you are a Westsider, extreme volume, narrow specificity, and an old-fashioned cycling will be a big surprise to your body. A big surprise leading to a big squat.

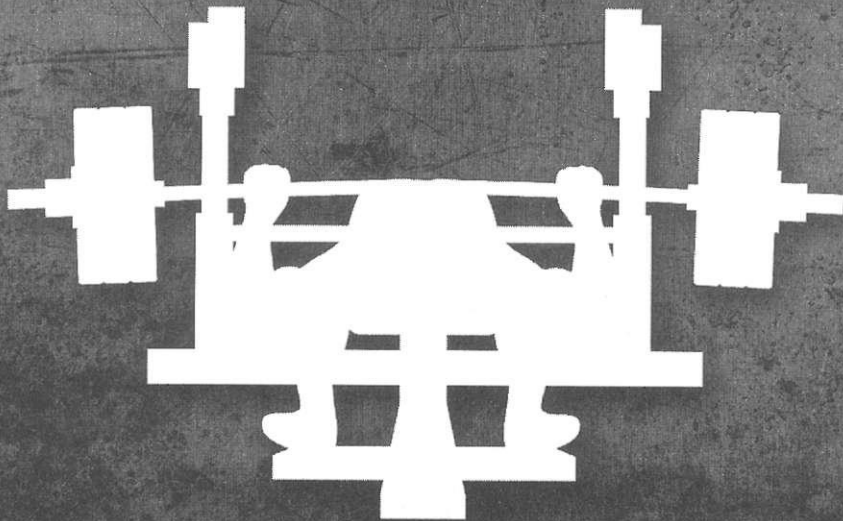




**CHAPTER**

**III**

**PRESS**



## CHAPTER III: PRESS

# How to Bench Big the Russian Way

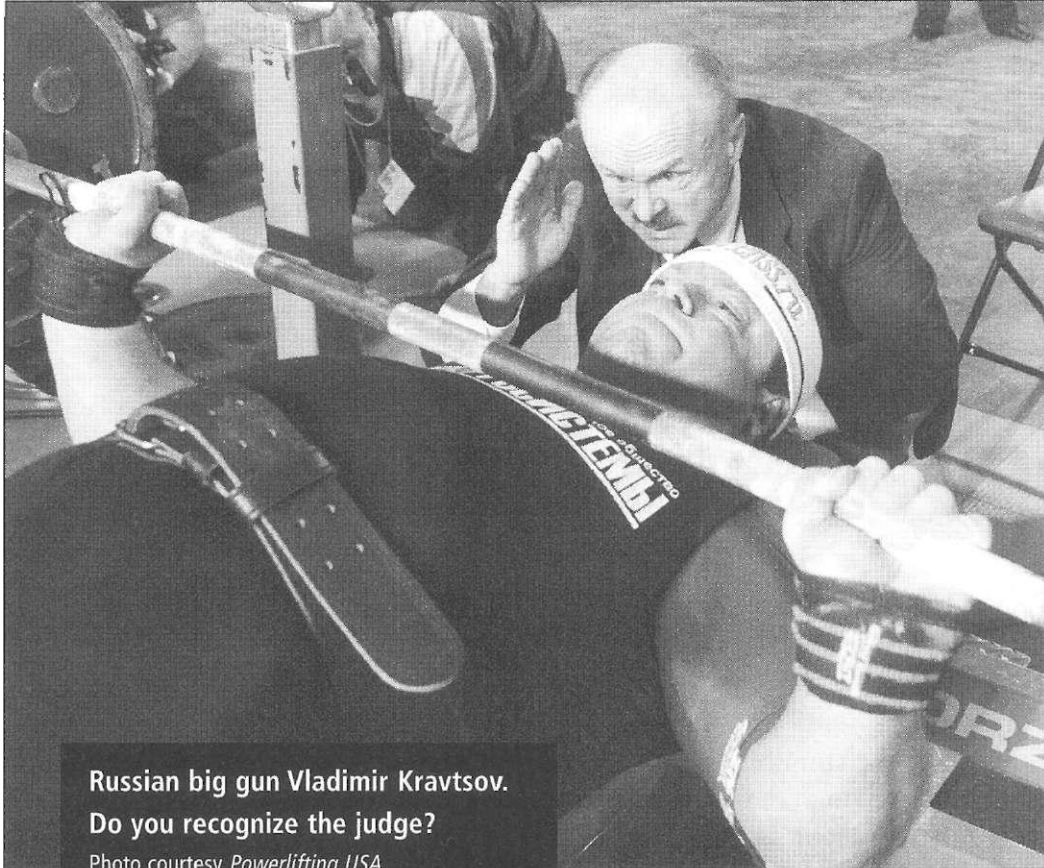
**I**PF powerlifting world champion Brian Siders has commented how brutally strong the former Soviets are, even though their muscularity is not at all impressive. "Some of them look like they have never lifted a weight, but they put up some impressive numbers."

The Russian bench press technique has been optimized to put up the greatest poundages, not to develop the biggest muscles. If you are after an exceptionally muscular upper body, bench with the technique I have described in detail in *Beyond Bodybuilding*. If gaining pounds on the bar drives you more than gaining pounds on your bones, read on. Ditto if you are a fighter or athlete who chooses to bench as a part of his S&C regimen.

Forget almost everything you know about the bench press. The Russian BP, although 100% legal as it complies with the pause on the chest and the butt touching the bench requirements, is not really a press but a push press. That's right, it is the legs that give the Russians their explosive bench starts! Igor Derevyanenko, Distinguished Coach of Russia explains: "[Our] bench press style and the style often seen in competitions, a tortured movement where only the strength of the shoulder girdle is employed, may be compared to two exercises from Olympic weightlifting. They are the military press and the push press. We 'push press' lying down."

## DOES THIS TECHNIQUE WORK FOR RAW LIFTERS?

Not as well as for gear assisted ones but yes, it does. Russian heavyweight Vladimir Kravtsov competes in a shirt but can bench 595 pounds for four reps raw.



Russian big gun Vladimir Kravtsov.  
Do you recognize the judge?  
Photo courtesy Powerlifting USA

## THE GRIP

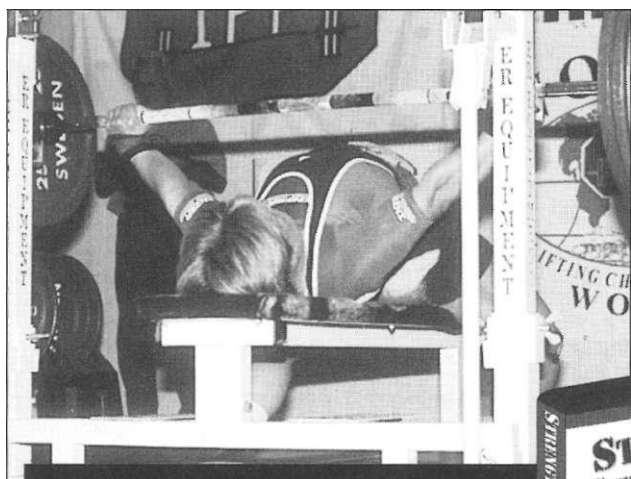
Russian powerlifters, even the lightest women, typically use the widest grip allowed by the rules.

If you bench to get stronger for some other sport you will be better off with a medium grip that puts your forearms parallel to each other when the bar touches your chest.

## THE SET-UP

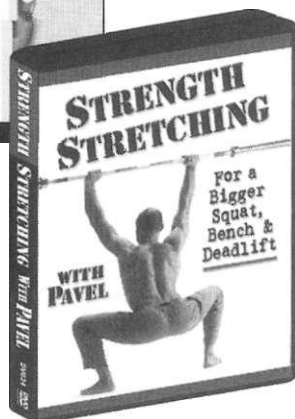
The set-up for the Russian bench push press is the same as for the classic BP from *Beyond Bodybuilding*. Pinch your shoulder blades together and set your arch. Plant your feet like you mean it. The glutes barely brush the bench to comply with the rules; all of the weight is on the feet and the shoulder blades.

## THE ARCH



**Svetlana Dedulya's extreme arch is typical for Russian female lifters.**

Photo courtesy *Powerlifting USA*



If you are a fighter or an athlete from a sport other than PL you don't need an extreme arch. Just open your chest.

Russian PLers arch as hard as they can (my DVD *Strength Stretching* will help you develop an exceptional arch). Boris Sheyko stresses that you should pull your shoulders as close as possible toward your pelvis.

Many Russians arch so hard that their shoulder blades clear the bench and their traps support the weight. Be aware that this increases the risk of a neck injury.

## THE HAND-OFF

You must use your lats when you are guiding the bar from the hooks to the starting position over your sternum. If you don't, you are giving away many pounds. A drill that will help you master this skill is the straight-arm pulldown with a light weight.

Stand in front of the pulldown machine and place your hands on top of the handle. Lock your elbows. Take a breath and press your shoulders towards your feet—an 'anti-shrug'—and keep them there. Then press the bar down until it is level with your sternum. As you are pushing the bar down force your chest out. Eventually pressing the shoulders and the bar down and the chest out should become one seamless movement. Practice in sets of two to three reps until you get it. Then try reproducing the sensation during the hand-off.

Back to the bench. Place the barbell at the right height. Russian coaches warn against using a high setting because an athlete who has to reach up to grab the bar loses some of his arch.

With your feet positioned and your arch set, lift your pelvis up and unrack the bar—always with a spotter, never by yourself if you a powerlifter.

Make sure to carry the bar far enough towards your feet to place it straight above the point where it would hit your chest. That point will vary depending on your build but it tends to be low, almost on the stomach, in the bench push press style. Remember the straight-arm pulldown feeling.

Lower your shoulders, and pinch your scapulae as much as possible as you are fixing the barbell in the position for the descent—'retract' your arms as you would retract telescopic antennae—then bring your hips down.

## THE DESCENT

As you are lowering the bar aim to meet it half way with your chest; force your chest up as the bar is coming down.

Some Russian big benchers believe that this element of the BP technique works best if you do not set your max arch during the hand-off. Pavel Chernishev, Distinguished Coach of Russia insists that when you manage to increase your arch on descent by forcing your chest up you are getting an advantage. He points out that if you do it right your glutes will move towards your feet on descent and towards the bar during the press. This variation is great for powerlifters whose backs get really beat up by a high arch and for non-powerlifters.

As they are not trying to store tension on descent the way one would in the classic grinding bench press, Russian powerlifters lower the bar at a medium to fast pace. The benefits of a fast negative are a greater stretch reflex and saving energy. Igor Derevyanenko adds that a fast descent and a sudden stop also makes the pause appear longer to the judges.

Some Russians have a negative that is so fast that it looks like an uncontrolled fall (it is not). Cracked and broken ribs happen, Comrade, so beware. Lower your bar in a loose style, but no more than that.

On the other hand, beware of tightening up and slowing down excessively with your heavy attempts. If you do, you will end up with a worthless hybrid of the grind press and the push press. This might happen if you are afraid of the weight. Recruit good spotters and have no fear!

All Russian coaches stress that the bar must be lowered straight down, which means you have to make sure to carry the barbell far enough towards your feet during the hand-off. It has been said before but this point is worth reemphasizing, as starting a rep with the bar too close to the head is a typical mistake, especially when one does reps.

## **WHY DOESN'T STARTING WITH THE BAR OVER THE STERNUM FEEL NATURAL?**

Your body is good at figuring out the best leverage for the moment but not for a few moves ahead. If holding the barbell in the top position was all there was to the bench, keeping the bar straight over the shoulders would have made sense. But, like a beginning chess player, your body does not realize that the game will change once the bar is down.

It is the same story with the one-arm pushup. A comrade starts with his hand under his shoulder and is then surprised when he collapses halfway down, possibly hurt and certainly weak. What he must do is shift his weight forward in the initial OAP set-up until he almost overbalances and does a face plant. What feels weird and even scary on the top will give you the best leverage and minimal shoulder strain on the bottom.

In powerlifting, like in chess, you must think many moves ahead.

You may not flare the elbows in this BP style; keep them at a forty-five degree angle.

A tip for a precise descent: focus on lowering the elbows and the bar will follow.

Let the bar sink into your chest without relaxing the latter. Pause. Competitive PLers, note that you may not let the bar sink any further after the press command or you will get redlighted for heaving.

## **THE LEG DRIVE**

Russian PL coaches say that the legs support 20-50% of the bar's weight! Appropriately, they call the BP set-up 'the bench press stance'.

Igor Derevyanko, the coach of powerlifting stars like IPF world bench press champion Konstantin Pavlov with a 414-pound bench press at 123 pounds of bodyweight, explains the leg drive:

"After a legal pause you must actively stomp the platform with your feet—from the toes to the heels. A wide strong wave will send an impulse from the legs to the back, and "rip through" from the lower back until almost the shoulder blades. The lats catch the movement and the barbell "flies."

Even if your federation does not allow this, it is a good idea to practice in the beginning by lowering the bar staying on the balls of your feet and then slamming your heels into the platform. Once you have figured out how to create a shock wave from your feet in this manner, practice doing it legally, without lifting your heels. A 'static stomp', just like the one-inch punch.

## THE DRIVE OFF THE CHEST

Russian benchers tense the pecs on descent but relax their arms somewhat. Sheyko explains that this technique is designed for an explosive start: a relaxation of the lats followed by their explosive tension and followed immediately by the pecs, delts, and tris. Even though he himself recommends a *Beyond Bodybuilding-style* tight and slow descent, the coach of the Russian national team recognizes that the benchers who stay tight will not have a start as explosive as those who relax first. We are talking about two totally different lifts—the *Beyond Bodybuilding* grind and the 'supine Olympic lift'—with totally different dynamics.

In the former the legs act only as stabilizers. The lift is an expression of what Americans call 'true upper body strength' and Russians call 'slow strength' or 'pressing strength'. Speed is not going to help as this is the low gear, tow truck approach to powerlifting. There is not much momentum; this is pure pressing.

In the latter, the legs start the lift and the upper body must carry on the momentum. Momentum means speed and upper body speed becomes more important than upper body grinding strength. This is the multi-stage missile approach to powerlifting.

Obviously, you cannot be totally relaxed with a huge weight in your hands, hence the compromise of pec tension.



## WHY A LESS TENSE MUSCLE IS QUICKER

Back in 1967 Soviet weightlifting specialist V. I. Rodionov stated that in the Olympic press—which by then had evolved from the strict military press to a sophisticated full body quick lift akin to today's Russian BP—the athlete should unload his arms until the judge's press command. He observed that a number of WLMs even opened their hands during the pause to crush grip the bar at the start of the press.

In *Ultimate Back Fitness and Performance, 2nd. Ed.* Dr. Stuart McGill explains: "If the spring is too stiff then elastic energy storage is hampered because there is minimal elasticity and no movement... Less than this [optimal stiffness] results in a spongy system while more than this creates stiffness that impedes energy return."

You can't punch fast if you are too tight. You can't punch hard if you are too loose.

## THE IDEAL COMPETITION BP TECHNIQUE IN A NUTSHELL (ACCORDING TO VLADIMIR KRAVTSOV)

1. Speed, speed, and more speed.
2. A maximal arch.
3. A maximal use of the legs.

## IS IT 'REAL' STRENGTH?

The same way powerlifters sometime dismiss Olympic weightlifting as 'tricky' as opposed to 'real' strength, old school powerlifters scoff at the 'push bench press' technique. Is it 'real' strength? There is no simple answer.

Athletes are like lawyers—they always look for loopholes in the rules and PLers are no exception. It happened in the kettlebell sport or GS when Alexey Vorotintsev developed the 'tempo press' technique and blew the old record of one-arm presses with a

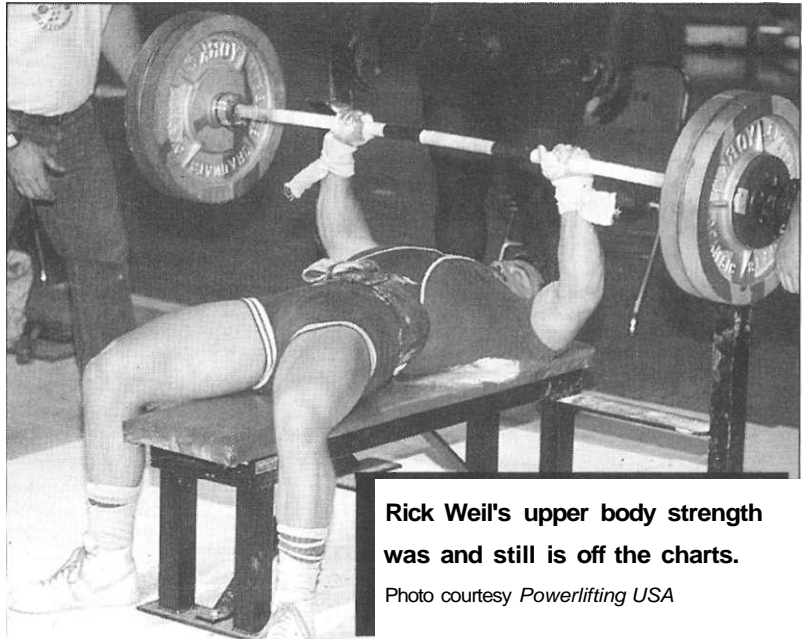


32kg kettlebell of 42 reps out of the water with 123! It is doubtful that his arm and shoulder had three times as much strength-endurance as the second best lifter's; the 'tempo press' used the legs and the rib cage. But that is not the point. The point is, Vorotintsev's reps, 'tricky' as they were, were legal. It is a low blow to try to diminish his record.

If you held a fantasy bench press contest with the feet up in the air to take the legs out of the picture between Kaz, Mike MacDonald, or Rick Weil and today's top benchers, it is hard to argue that the stars of the 1980s would dominate. Take Rick Weil who put up 551 at 181, with no shirt and using the grinding *Beyond Bodybuilding* technique. It is doubtful that anyone has that kind of upper body strength today.

But strength is the ability to generate force *under given conditions*. And the conditions specified by all powerlifting federations tell you to keep your feet on the ground. Hence the bench is not all about the upper body strength any more.

I am not a bench press competitor so it is not my place to call whose bench is 'real' and whose isn't. Decide for yourself.



**Rick Weil's upper body strength was and still is off the charts.**

Photo courtesy Powerlifting USA

## THE GROOVE FOR NON-POWERLIFTERS

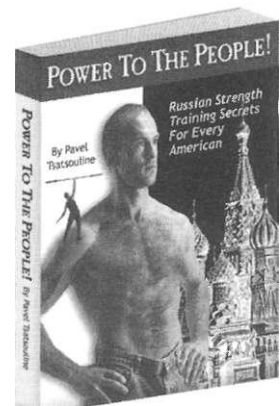
Push straight up to the top. Keep your elbows in and under the bar and your chest up all the way to the lockout.

I agree with Louie Simmons: "The bar should be pushed back up in a straight line, not back over the face. This requires strong triceps. This path is a shorter distance and requires no shoulder rotation, which is also much safer. The barbell will always seek the strongest muscle group; that's why most push the bar over the face. Their delts are stronger than their triceps. But it should be the reverse. One sees a lot of shoulder and pec injuries, but seldom do you see a triceps injury. Why? The triceps have never been pushed to their maximal potential."

Resist the temptation to flare your elbows when the going gets tough! And be prepared for your poundages to drop in a short run. A federal officer who stays in shape for his job with powerlifting and kettlebells was considering hanging up his PL belt because his shoulders could not take the abuse of benching towards his head any more. I told him to switch to the WSB groove, an imitation of the decline press. His numbers went down but so did his shoulder aches. Six months later not only did he regain his strength but set a 50-pound PR.

This is not the only way to bench and it is not the Russian way. But if you are not a powerlifter it is the best and the safest way. No, you will not use your shoulders to their full capacity, but you also are a lot less likely to hurt them.

The floor press from *Power to the People!* is an exercise that will help you learn how to keep the elbows under the bar.



## THE GROOVE FOR POWERLIFTERS

Sheyko, Distinguished Coach of Russia stresses that you must direct your effort from your feet somewhat towards your head; guiding the bar straight up makes it likely that your glutes will lift and you will get you red-lighted. Sheyko also warns that pressing straight up or towards your feet takes the delts out of the picture. He recommends an *approximately* vertical groove with a slight drift towards the head.

## 'COLLAPSING THE ARCH': FOR POWERLIFTERS ONLY

Visually this groove resembles a boxer's punch next to the Westside 'karate punch groove'.

Keep your elbows close to your sides until the bar is half way up, then flare them out as you flatten your chest. Pavel Chernishev explains that "you should simultaneously move the bar and your chest towards each other on descent... and the ascent is the opposite movement where you explosively push yourself away from the bar and lower your body while 'collapsing' your arch while lifting the bar."

Collapsing the arch is similar to the 'hollow position' in gymnastics—a very strong yet hard on the body alignment. Learn more from the articles by Mark Reifkind, Master RKC and Brad Johnson on [www.DragonDoor.com](http://www.DragonDoor.com).

Collapsing the arch increases the shoulder strain. The shoulder internally rotates which makes it strong—and vulnerable. Then your shoulder blades flare out. No big deal for the moment but a problem once you lower the bar for the next rep. Three problems, to be exact.

First, you will not be able to lift your chest as high, which means a longer push and reduced pec recruitment. Second, your shoulders will come up higher, which will expose them to injury. And third, with your scapulae apart you will not have a stable platform to push from.

Note that while 'collapsing the arch' jeopardizes your shoulders it reduces the back stress should you have to grind the lift home. And this is a big deal for lifters who are not BP specialists. If you choose this technique try incorporating 'the karate navel maneuver' into it for even more strength and less back strain. Refer to my *Power to the People!* book for the description.

You are informed, make the call whether this Russian technique is for you.

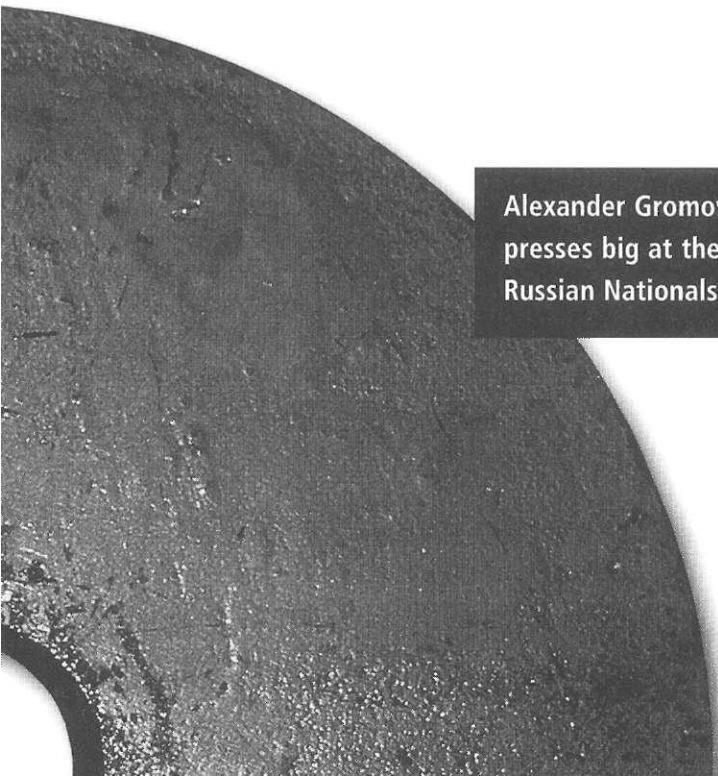
## BREATHING

Take a deep breath before lowering the barbell, hold it.

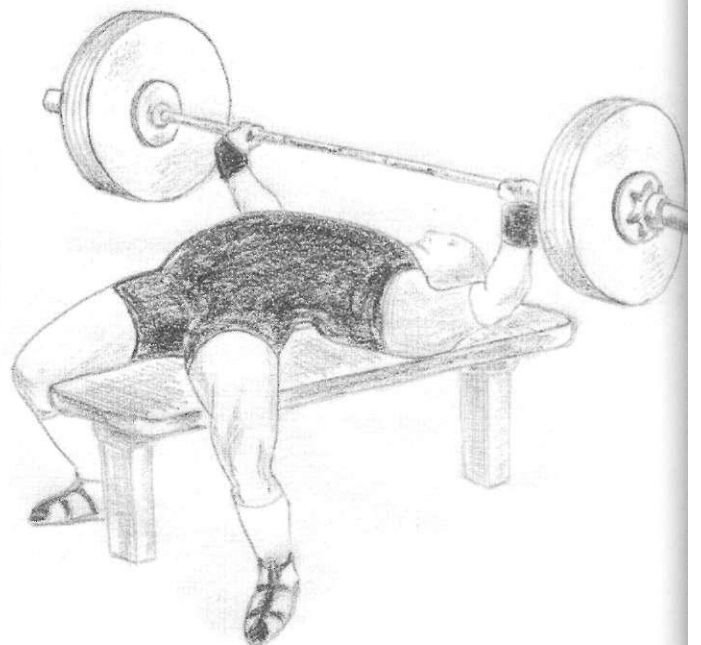
Exhale forcefully in the last third of the range of motion, at the usual sticking point, and lock out at the same time. Match the breath with the force.

## THE LOCKOUT

It is interesting that the pecs are very involved in the Russian style lockout, even more than in the start. It feels the way a karate punch does the instant it connects with its target.



Alexander Gromov  
presses big at the  
Russian Nationals



## THE RUSSIAN BENCH PUSH PRESS TECHNIQUE SUMMARY FOR NON-POWERLIFTERS

1. Choose the grip width that places your forearms parallel to each other when the bar touches the chest.
2. Place your feet firmly on the platform, pinch your shoulder blades together, press your shoulders towards your feet (the opposite of a shrug) and raise your chest to set a moderate arch.
3. Unrack the bar and use your lats to carry it over your sternum. Keep as much weight as possible on your feet.
4. Take a deep breath and hold it.
5. Loosely lower the bar to your sternum. Meet it half way with your chest; force your chest up on descent.
6. Don't flare your elbows, keep them at an approximately 45 degree angle. Keep your elbows straight under the bar; focus on lowering the elbows rather than the bar. Keep your wrists straight.
7. When the bar has touched your chest relax your arms and let the bar sink into your chest. Don't let your ribcage collapse though and don't lose your air. Pause motionless for a second.
8. Explosively drive your feet, from toe to heel, into the platform and send a shock wave through your body.
9. Immediately crush grip the bar and press with a maximum explosion. The shock wave from your legs should pass through your lats. Then the delts, the triceps, and finally the pecs will fire.
10. Press straight up. Keep your elbows in, your chest up, and your shoulders down. Forcefully exhale as you lock out.

## PROGRAM DESIGN

Speaks Igor Derevyanenko: "...one must not constantly train with limit weights. This will lead to plateaus, possible injuries, depression, and nervous exhaustion. Gradually increasing loads... is the method for non-stop strength gains."

It is cycling the Russian coach is referring to. Reread *Power to the People'*, to brush up on your understanding of this concept. If you don't get cycling, you don't get strong.

Derevyanenko explains the typical Russian cycling procedure: an 8-12 week cycle starting with 4-5 sets of 8-10 reps. The weights gradually go up and the reps go down until the lifter does 2 sets of 2-3 reps three weeks before the meet. Then he tapers with warm-up style workouts. No revelations or breakthroughs here. Pick up a Reagan and Gorby era issue of *Powerlifting USA* and you will find plenty of programs written along these lines. Russians have a lot more respect for classic American powerlifting training methods than Americans do these days.

## WHY DO THE REPS GO UP TO TEN?

If you have read *Power to the People!* you must be perplexed by the reps climbing to ten. But once you get a hang of the Russian bench push press you will realize that it is totally different animal from traditional 'grinds'. A much higher speed of the bar on the way down and up shortens the time the muscles spend under tension. The stabilizers do not get nearly as trashed after a set of ten as they do after a set of ten 'grinds'.

If you are a student of *The Russian Kettlebell Challenge*, you can relate the Russian BP to the kettlebell push press or jerk rather than the military press. The dynamics are different and so are the reps.

Here is a great example of a Russian bench press cycle by Andrey Butenko:

### WEEKS 1-4

Twice a week 60% x 10/4 (reps/sets)

### WEEKS 9-12

Twice a week 80% x 5/6

### WEEKS 5-8

Twice a week 70% x 6/5

### WEEKS 13-16

Twice a week 90% x 3/3

Nothing fancy, just a classic progression from high volume to high intensity. The percentages are based on your current—not projected—raw paused max. "Don't forget one thing—you must press with a pause, even in your warm-up sets," stresses Andrey. "Given time, a 2-3sec pause will give you a powerful start. Even great champions will envy your explosive strength."

While the program's author prefers a sixteen-week cycle, he and others have had success with an abbreviated eight-week version. Just cut each phase in half from four weeks to two. You may slice even deeper and end up with a four-week cycle, one week at each percentage, but Butenko will tell you not to expect to get much stronger; a four-week adaptation is just a last minute peaking cycle.

An eight-week version is a different matter. Speaks Nikolay Vitkevich who has used the program to take his bench from four wheels to five and change: "An eight week program fits into a ten to twelve week competition cycle very well. I set aside a week to rest before the meet, another week for practicing in a shirt, and two weeks for 'working on mistakes'. If for some reason I have failed to cleanly press the planned numbers I might add an extra week to 'polish' the same weight."

I will elaborate on the 'working on mistakes' weeks. Unless you are a high rep guy—in which case you are reading the wrong book—you are not likely to hit all the numbers right off the bat. Vitkevich, for instance, only manages eights during his first 60% week and only in his fourth workout does he hit the planned 4 sets of 10. And during the 70% phase it takes him a full four weeks to nail the 5 sets of 6. But what if he doesn't make it even then?—That is where the extra week will come in handy.

## ASSISTANCE WORK

Assistance is not the focus of Russian BP training. Russians get good at benches by doing a lot of benches. Follow the technique and the program outlined in this article without any additional exercises and you will not be disappointed.

## YOU MIGHT GET HOOKED!

I will let Igor Derevyanenko wrap up:

*"When you 'push press' lying down you take charge of the press. Suddenly you want to hold the barbell on your chest for a few seconds longer. When pressing you get the sensation of flight, of a gunshot from your legs... The lift becomes your favorite."*

# Bench and Nothing but the Bench - All the Way to 600

I have said it before in *Power to the People!* and *The Naked Warrior* and I will say it again. If you wish to excel at a lift, you can't beat frequent practice of this lift with a moderately heavy weight and never to failure. Vladimir Volkov, the European bench press champion and master's world champion in the 220 lbs. weight class, has proved that point with a 639 lbs. bench in IPF competition.

Forty-six year old Vladimir trains three to five times a week, depending on how busy he is at work. The only exercise he does is the bench. No lat work, no dumbbells, no inclines or close-grips, just the powerlifting style bench.

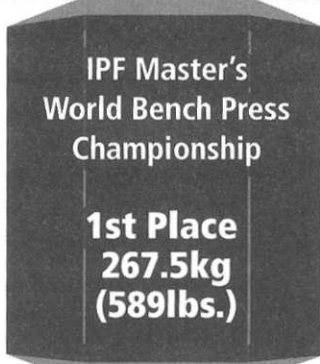
Following are ten weeks of Vladimir Volkov's training. I am listing kilograms rather than pounds for two reasons. One, I am too lazy to crunch the numbers and two, to point out that the Russian simply jumps 10kg per set, a round number. Poundages—308x3, 330x3, 352x3, 374x3...—would have given you a wrong idea that he uses some very sophisticated percentages. He doesn't.

The percentages in brackets are the top weights for the day converted to % 1RM. Again, they are not listed to impress you with the magic properties of 67% or 78% but to show how moderate the poundages are. Moderate relative to his max that is.

Note that the athlete competes in a bench shirt but trains without one and his first set is always 50% of his competition max.




VLADIMIR VOLKOV'S  
BENCH AND NOTHING  
BUT THE BENCH TRAINING, KG

Week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
1	140x3, 50x3, 160x3, 170x3, 180x3, 190x3/5 (70%)	140x3, 150x3, 160x3, 170x3, 180x3, 190x3, 200x3, 210x3, 220x3 (81%)	140x2, 150x2, 160x2, 170x2, 180x2, 190x2, 200x2, 210x2 (78%)		140x3, 150x3, 160x3, 170x3/3 (63%)		140x2, 150x2, 160x2, 170x2, 180x1, 190x1, 200x1, 210x1, 220x1, 230x1, 240x1 (88%)
2	140x2, 150x2, 160x2, 170x2, 180x2/2 (67%)		140x3, 150x3, 160x3, 170x3, 180x3, 190x3 paused (70%)		140x2, 150x2, 60x2, 170x2, 180x2, 190x2, 200x2, 210x2, 220x2 paused (81%)	140x1, 150x1, 160x1, 170x1, 180x1, 190x1, 200x1/3 paused (74%)	
3	140x3, 150x3, 160x3, 170x3/4 paused (63%)			140x2, 150x2, 160x2, 170x2, 180x2, 190x2, 200x2 paused (74%)	 <p>IPF Master's World Bench Press Championship</p> <p><b>1st Place</b> <b>267.5kg</b> <b>(589lbs.)</b></p>		



Week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
4				140x3, 150x3, 60x3, 170x3/3 <b>(63%)</b>	140x1, 150x1, 160x1, 170x1, 180x1, 190x1, 200x3/3 <b>(74%)</b>	140x1, 150x1, 160x1, 170x1, 180x1, 190x1, 200x1, 210x1/3 paused <b>(78%)</b>	
5	140x2, 150x2, 160x2, 170x2, 180x2, 190x2, 200x2/2 <b>(74%)</b>	140x4, 150x4, 160x4, 170x4, 180x4, 190x4, 200x4/4 paused <b>(74%)</b>		140x2, 150x2, 160x2, 170x2, 180x2/3 <b>(67%)</b>		140x1, 150x1, 160x1, 170x1, 180x1, 190x1, 200x1, 210x1, 220x1, 230x1 <b>(85%)</b>	
6	140x3, 150x3, 160x3, 170x3, 180x3/5 <b>(67%)</b>		140x2, 150x2, 160x2, 170x2/4 <b>(63%)</b>		<div style="border: 1px solid black; padding: 10px; background-color: #333; color: white;"> <p>Moscow Bench Press Championship</p> <p><b>1st Place</b> <b>290kg (639lbs.)</b></p> <p>(The Moscow record exceeding the world record)</p> </div>		

Week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
7	140x5, 150x5, 160x5, 170x5, 180x5, 190x5, 200x5 <b>(69%)</b>	140x2, 150x2, 160x2, 170x2/3 <b>(59%)</b>	140x4, 50x4, 160x4, 170x4, 180x4, 190x4, 200x4 <b>(69%)</b>		140x5, 150x5, 160x5, 170x5, 180x5, 190x5/4 <b>(66%)</b>		
8	140x2, 150x2, 160x2, 170x2, 180x2, 190x2, 200x2, 210x2, 220x2, 230x2 <b>(79%)</b>	140x3, 150x3, 160x3, 170x3, 180x3/3 <b>(62%)</b>			140x1, 150x1, 60x1, 170x1, 180x1/2 <b>(62%)</b>		140x3, 150x3, 160x3, 170x3, 180x3, 190x3/3, 200x1 <b>(69%)</b>
9		140x1, 150x1, 160x1, 170x1, 180x1, 190x1, 200x1, 210x1, 220x1, 230x1, 240x1, 250x1 <b>(86%)</b>		140x2, 150x2, 160x2, 170x2, 180x2, 190x2/3 <b>(66%)</b>	140x3, 150x3, 160x3, 170x3, 180x3, 190x3, 200x3/2 <b>(69%)</b>		140x2, 150x2, 160x2, 170x2, 180x2, 190x2, 200x2, 210x2, 220x2 <b>(76%)</b>
10		140x1, 150x1, 160x1, 170x1, 180x1, 190x1, 200x1/2 <b>(69%)</b>			 <p>Russian Bench Press Championship <b>1st Place</b> <b>270kg</b> <b>(595lbs.)</b></p>		

## HOW TO CONVERT KILOGRAMS TO POUNDS

To make a quick kilos to pounds conversion multiply the kilos by two, then add ten percent. For instance,  $430 \times 2 = 860$ .  $860 + 86 = 946$ . Thus 430kg convert to 946 pounds.

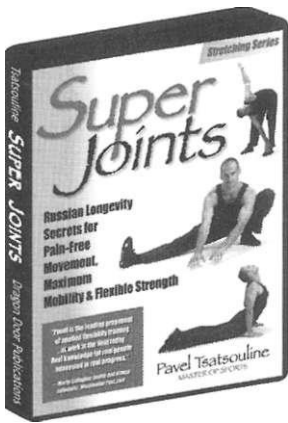
If you want an exact conversion, one kilogram equals 2.2046 pounds.  $430 \times 2.2046 = 947.978$ . I hope you have better things to do with your time though.

Boris Sheyko, Head Coach IPF Team Russia, has made minor recommendations.

First, to reduce the number of meets Volkov competes in, to give himself a chance to build more of a base.

Second, since Vladimir's federation, IPF, allows a bench shirt, to train in a shirt with weights of 80% and higher. The idea is finessing the skill of getting the most out of the shirt.

Third, "For an athlete in Vladimir's weight class (100kg) 10kg jumps between sets are too small... by the time he works up to his main training weight, say from 140kg to 220kg, he has done 8 sets. It is too many. I would recommend a reduction in the number of warm-up sets. This will enable the lifter to add a set or two with 'the working weight'. And the training session will not be as long."



Fourth, Sheyko has advised to add some assistance work. "Exercises to improve the flexibility and strength of the pectorals' and arms' ligaments are a must. The quicker the bench press goes up, the more attention must be paid to strengthening the ligaments. Not strengthening the ligaments may lead to an injury." See *Strength Stretching* for the best in powerlifting specific flexibility and *Super Joints* for keeping your joints and ligaments strong and healthy.

Sheyko's criticisms notwithstanding, the top Russian coach added, "If this methodology has led to victories in European and world championships, there is no need to change anything or look for something new." If it ain't broke, don't fix it.

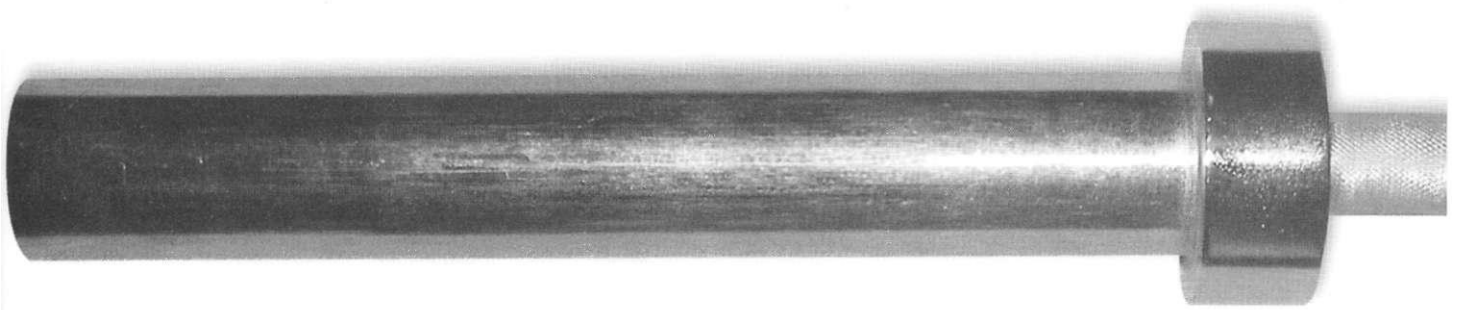
Heavy weights. Low reps. Saying no to muscle failure. Practicing the lift one wants to excel at a lot and to the exclusion of other exercises. Power to the people!

# Bench: Extreme Specialization

Russian Irina Krylova has set All Time Historic World Record—encompassing all twenty something federations—in the bench press in two weight classes, 44 and 48kg. That alone would be awesome, but once you find out that she lifts in the IPF and without a bench shirt, you realize that she is in a league of her own.

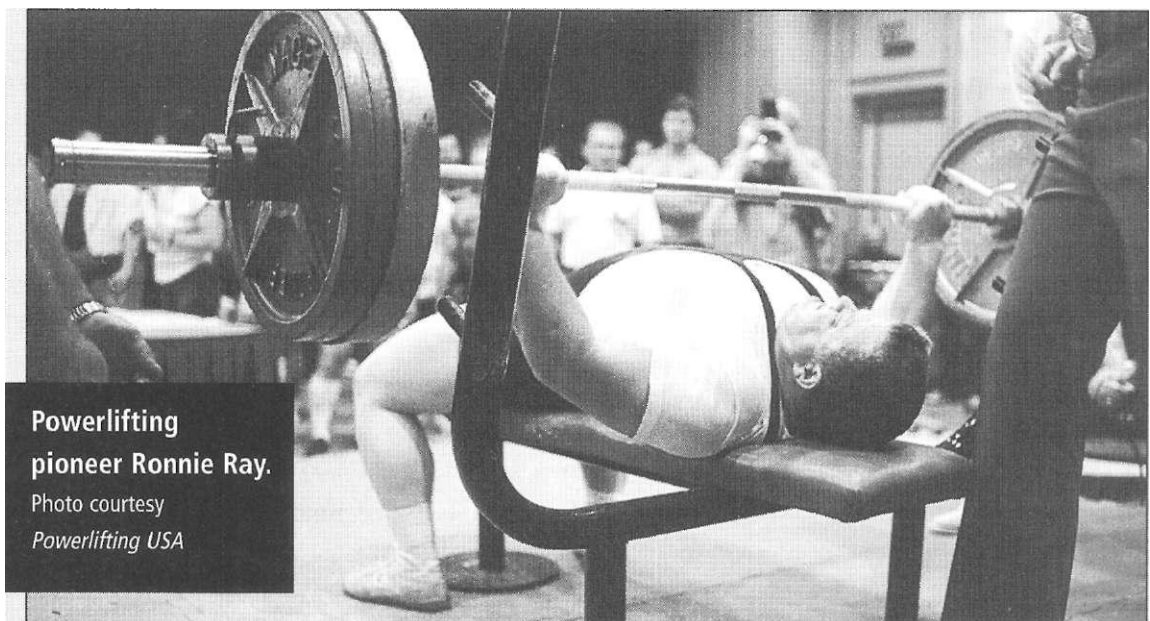
Another remarkable thing about Krylova is that her training is pure powerlifting, no assistance whatsoever. "Bench press and nothing but the bench press!" insists her coach Pavel Chernishev, Distinguished Coach of Russia. "Under no circumstances should you do additional exercises (triceps, biceps, etc.). You must do the bench press and nothing else. I can explain why. The strength and energy you have when you start your workout must be channeled into the... [competition] lifts. You must not forget about the process of recovery. It is easier to recover from one thing than from everything". Bench programs by Chernishev are the rage among the Russian power elite. Following is one of his training plans.

Chernishev employs extra long, up to 5 sec, pauses on the chest in order to build insane starting strength. He does not care much for percentages, which would earn him a round of applause from old school American lifters. Instead he individualizes the program by working back from a near max single that you are supposed to take in the end of every—every!—workout on the background of fatigue. It is from this heavy single that you will be calculating the weights for each workout.



## PAUSED BENCH PRESSES FOR "GRINDERS"

Chernishev's training plan has been designed with the 'supine push press' BP technique in mind, described in the last article. In this style the bar sinks into the chest, with the arms relaxing until the push. The program would not work for a 'grinder' because holding the muscles under tension for such a long time would fry them and make them unable to finish the workout as laid out. But it does not mean that pauses are worthless for high tension lifters who press with the *Beyond Bodybuilding* type technique. On the contrary, pauses will build a strong and precise start and big muscles. You would simply have to use a different program and hang it up after the pauses. A good example is the training of Ronnie Ray from Texas, the first 198-pounder to bench 500. Marty Gallagher told me that Ray would do a 405 single with a 30 sec pause in the end of his workout. Nice!



Powerlifting  
pioneer Ronnie Ray.  
Photo courtesy  
*Powerlifting USA*

Say, your max is 220kg and you have estimated that you can single 180kg any time, even after a moderately tiring workout. The program tells you to do this:

Workout	Reps	Series	Weight jump*	Pause
1	3, 5, 3	3	10kg	3 sec

This will translate to:

- 150kg x 3, 5, 3 (3 sec pause)
- 160kg x 3, 5, 3 (3 sec pause)
- 170kg x 3, 5, 3 (3 sec pause)
- 180kg x 1 (a legal pause)

A group of sets that gets repeated, in this case (3, 5, 3 reps), is called a 'series' and is a regular fixture of Russian PL programs. In the above example a (3, 5, 3) series is repeated three times.

## 'REP WAVES' IN RUSSIAN POWERLIFTING

Pavel Chernishev is not the only Russian PL coach who favors set/rep schemes that call for waving the reps while keeping the weight static. Below is a snapshot of the training of IPF world championship silver medalist Maxim Barkhatov, coached by Vladimir Kortunov, Distinguished Coach of Russia. Rep waves have been highlighted with a bold font.

Barkhatov's lifts at the time: SQ 380kg, BP 270kg, DL 365kg.

### WEEK 2 IN THE PREPARATORY PERIOD

#### MONDAY

- Back extension—10/2
- Jump onto a pommel horse (box jump)—10/2
- SQ—70kg x 8, 120kg x 7, 170kg x 5, 220kg x 3, 270kg x 5, 3, 5; 290kg x 3, 5, 3
- BP—70kg x 10, 130kg x 5, 170kg x 3, 5, 3; 180kg x 3, 5, 3; 190kg x 3, 5, 3
- Upright row—8/5

#### TUESDAY

- Back extension—10/2
- Clapping pushup—5/3
- BP with a 5 sec pause—70kg x 10, 130kg x 5, 170kg x 2, 185kg x 3, 200kg x 2, 215kg x 1
- BP lockout—230kg x RM
- Pullover—10/3

#### WEDNESDAY

- Back extension—10/2
- DL up to the knees—70kg x 8, 130kg x 5, 170kg x 3, 220kg x 3, 250kg x 3, 5, 3, 5, 3
- BP with a 3 sec pause—70kg x 10, 130kg x 5, 170kg x 3, 180kg x 3, 5, 3; 190kg x 3, 5, 3
- DL lockout—120kg x 8, 170kg x 5, 220kg x 3, 270kg x 5, 3, 5; 290kg x 5, 3, 5
- Shrug—10/5

#### THURSDAY

Rest.

**FRIDAY**

- Back extension—10/2
- Standing long jump—1/10
- SQ—70kg x 8, 120kg x 7, 170kg x 5, 220kg x 3, 270kg x **3, 5, 3, 5, 3**
- BP with a 5 sec pause—70kg x 10, 130kg x 5, 170kg x 3, 3
- Bent over row—8/5

**SATURDAY**

- Back extension—10/2
- Clapping pushup—5/3
- Bench press with a 3 sec pause—70kg x 10, 130kg x 5, 170kg x 3, 185kg x 5, 200kg x 3, 215kg x 1
- Medium grip BP—170kg x RM
- Dumbbell fly—10/3

**SUNDAY**

Rest.

**WEEK 1 IN THE COMPETITION PERIOD****MONDAY****10 A M**

- Back extension—10/2
- SQ—70kg x 8, 120kg x 7, 170kg x 5, 220kg x 3, 270kg x **5, 3, 5, 3**
- Hanging leg raise—20/1

**5 P M**

- Back extension—10/2
- BP with a 2 sec pause -70kg x 10, 130kg x 5, 180kg x 3/3, 190kg x 3/3, 200kg x 3/3
- Box DL—8/3
- DL—120kg x 7, 170kg x 5, 220kg x 3, 270kg x 5/3 (reps/sets), 290kg x 3/3, 310kg x 2/3, 330kg x 1
- Shrug—10/3

**TUESDAY**

- Back extension—10/2
- BP with a 3 sec pause—70kg x 10, 130kg x 5, 180kg x 2, 200kg x 2, 220kg x 2, 240kg x 2
- BP lockout—260kg x RM
- Upright row—10/3

**WEDNESDAY**

- Back extension—10/2
- BP with a 2sec pause—70kg x 10, 130kg x 5, 180kg x 3/2, 190kg x 2/3, 200kg x 3/2
- Good morning—8/3

## THURSDAY

- Back extension—10/2
- BP with a 3 sec pause—70kg x 10, 130kg x 5, 180kg x 2/2, 190kg x 2/2, 200kg x 2/2
- Seated cable row to the stomach—10/3

## FRIDAY

### 10 A M

- Back extension—10/2
- SQ—70kg x 8, 120kg x 7, 170kg x 5, 220kg x 3, 290kg x 3/3, 330kg x 1
- Hanging leg raise—20/1

### 5 P M

- Back extension—10/2
- BP with a 2 sec pause—70kg x 10, 130kg x 5, 180kg x 3, 200kg x 3, 200kg x 3, 240kg x 1
- Medium grip BP—180kg x RM
- Box DL—8/3
- DL—120kg x 2, 140kg x 5, 220kg x 3, 270kg x 5, 3, 5, 3
- Bent over lateral raise—10/3

## SATURDAY

- Back extension—10/2
- BP with a 3 sec pause—70kg x 10, 130kg x 5, 180kg x 2, 190kg x 2, 200kg x 2
- Dumbbell fly—10/3

Chernishev instructs you to stay with the same weight for one series, then up the weight for the next series. The amount of the increase is specified: 5, 7.5, or 10kg. Obviously, 10, 15, and 20 pounds would also do the trick.

Just to make sure that you understand how to decipher the matrix, here is another example:

Workout	Reps	Series	Weight jump*	Pause
4	2, 3, 2	2	7.5kg	5 sec

165kg x 2, 3, 2 (5 sec pause)  
 172.5kg x 2, 3, 2 (5 sec pause)  
 180kg x 1 (a legal pause)

As before, we have worked back from the 180kg single in specified amounts (7.5kg this time).

Occasionally Chernishev will prescribe one series only. In that case you are supposed to increase the weight from set to set. For example:



Workout	Reps	Series	Weight jump*	Pause
2	2, 3, 2	1	5kg	5 sec

165kg x 2 (5 sec pause)  
 170kg x 3 (5 sec pause)  
 175kg x 2 (5 sec pause)  
 180kg x 1 (a legal pause)

Got it? Here is the whole works, a forty-workout plan. Obviously, as you get stronger feel free to up the final single and readjust your poundages accordingly.

Determining the optimal frequency is up to you. Russians press often. Five times a week works for Maxim Barkashov, for instance. Yet there is an opinion, especially among those from WPO/WPC, that this is excessive. Speaks out Andrey Butenko: "I believe that Chernishev's program is best for women, especially lightweights. It has been tested—it works! In less than half a year 60kg young ladies upped their bench from 60 to 90kg. But male and female muscle structures are different. Men need more time for recovery. Which means that training the bench press more than three times a week is simply dangerous."

### COMPLEX #1 (12 WORKOUTS)

Workout	Reps	Series	Weight jump*	Pause
1	3, 5, 3	3	10kg	3 sec
2	2, 3, 2	1	5kg	5 sec
3	3, 5, 3	2	7.5kg	3 sec
4	2, 3, 2	2	7.5kg	5 sec
5	3, 5, 3	1	5kg	2 sec
6	2, 3, 2	3	10kg	5 sec
7	2, 3, 2	3	10kg	3 sec
8	3, 5, 3	1	5kg	5 sec
9	2, 3, 2	2	7.5kg	3 sec
10	3, 5, 3	2	7.5kg	5 sec
11	2, 3, 2	1	5kg	3 sec
12	3, 5, 3	3	10kg	5 sec

**COMPLEX #2 (8 WORKOUTS)**

Workout	Reps	Series	Weight jump*	Pause
13	3, 3	2	10kg	2 sec
14	2, 2, 2	3	7.5kg	3 sec
15	3, 3, 3	1	7.5kg	3 sec
16	2, 2	2	10kg	3 sec
17	2, 2	2	10kg	2 sec
18	3, 3, 3	1	7.5kg	1 sec
19	2, 2, 2	1	7.5kg	2 sec
20	3, 3	2	10kg	3 sec

**COMPLEX #3 (12 WORKOUTS)**

Workout	Reps	Series	Weight jump*	Pause
21	3, 3, 3	3	10kg	3 sec
22	2, 2, 2, 2	1	5kg	5 sec
23	3, 3	3	7.5kg	3 sec
24	2, 2	3	7.5kg	5 sec
25	3, 3, 3, 3	1	5kg	3 sec
26	2, 2, 2	3	10kg	5 sec
27	2, 2, 2	3	10kg	3 sec
28	3, 3, 3, 3	1	5kg	5 sec
29	2, 2	3	7.5kg	3 sec
30	3, 3	3	7.5kg	5 sec
31	2, 2, 2, 2	1	5kg	3 sec
32	3, 3, 3	3	10kg	5 sec

## COMPLEX #4 (8 WORKOUTS)

Workout	Reps	Series	Weight jump*	Pause
33	3, 5, 3	2	10kg	2 sec
34	2, 2, 2	1	7.5kg	3 sec
35	3, 5, 3	1	7.5kg	2 sec
36	2, 3, 2	2	10kg	3 sec
37	2, 3, 2	2	10kg	3 sec
38	3, 5, 3	2	10kg	3 sec
39	2, 3, 2	1	7.5kg	2 sec
40	3, 5, 3	2	10kg	3 sec

\* Add this amount of weight after every set if the workout calls for only one series. If multiple series are prescribed, stay with the same weight for all three sets of the series and up the weight in the next series. In every workout following the paused sets add the specified amount of weight (5, 7.5, or 10kg) one more time and perform a competition style (legal pause only) single.

I shall wrap up with an excerpt from 'The Russian Mystery', an article Marty Gallagher wrote for *Powerlifting USA* several years ago.

*"The USSR powerlifters have a primitive commonality in their eating, training and living conditions. They lack variety. Their poverty has demanded they stick to power basics: they squat, bench press, deadlift, and do damn little else. Who can argue—should we emulate them and become purposefully primitive?"*

*"Perhaps economic limitations that enforce a reliance on the basics—squatting, benching and deadlifting—is key. Perhaps their deprivation is their salvation. Perhaps grinding poverty forces them to rely on ultra-basics. We in the West are continually dazzled by the latest innovation, seduced by shortcuts, lured by sleek and glossy exercise machines and razzle-dazzle nutritional supplements, debuted each year like GM introducing the latest Chevy mini-van. Human nature given an opportunity prefers choice to monotony, variety over sameness, but perhaps our affluence is our downfall. We are continually searching for variety (the spice of life) when in powerlifting it might well be the kiss of death.*

*"Meanwhile the Ukrainian and Russian, undistracted and single-minded, squats with a barbell, benches with a barbell, deadlifts with a barbell and does little else. Is it possible that this primitive approach, narrow as a pie-slicer, totally lacking in variety, is the secret of Soviet success?"*

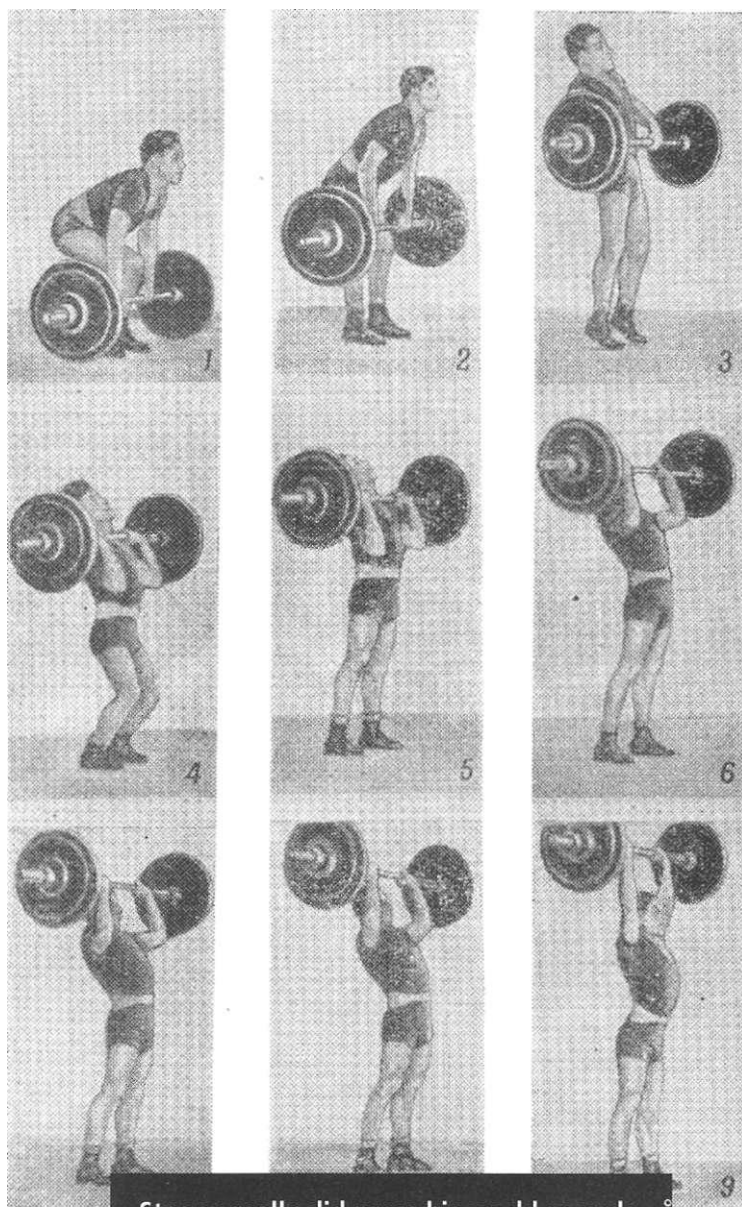
# How the Russians Pressed Overhead

## PART I: THE TECHNIQUE

Whether you are a powerlifter or a *MILO* guy with disdain for any exercise done lying down, this piece is for you. It will show you how Soviet weightlifters pressed when the press was still an Olympic lift. If you are a strictly overhead kind of comrade, you will learn how to put up more weight overhead just for the sake of it. If you are a powerlifter, you will learn how to train your shoulders safer and better.

Although many top Russian benchers press overhead, including the number one Vladimir Kravtsov, the debate whether overhead pressing helps the bench is still at a stalemate. If you decide that it does, you should opt for the standing press rather than the seated one. Vladimir Mironov, a leading Russian bencher of the last decade, has a convincing reason why—it is easy to get injured when pressing seated. If the barbell gets out of the groove, there is not much you can do to guide it back. In the standing press you can adjust your body position.

This piece is based on recommendations by great lifters, coaches, and scientists—Vorobyev, Roman, Rodionov. Between the extremes of the pre-Elvis press with the body held at attention and the bar following the ref's finger and the Beatles' era 'tempo press' that was not a press at all, I have picked the version most iron men would agree on as 'strict—a slight back bend and use of nothing but the arms and shoulders' strength. You will be pressing like V. Stogov, a world champion and record holder. He put up his presses with pure strength, even in the age when his competitors didn't.

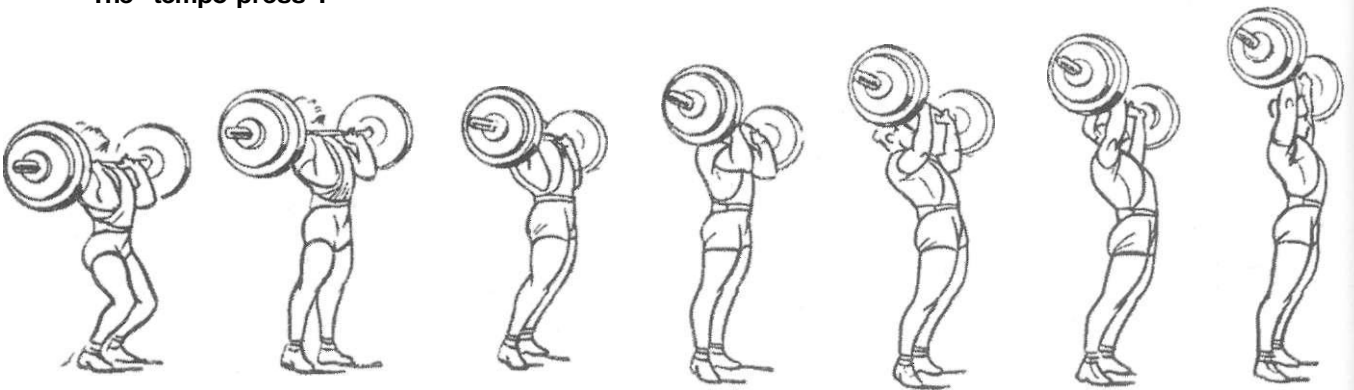


Stogov really did press his world records.

## JUST HOW TRICKY WERE THE PRESSES OF THE 1960S AND 1970S?

The lift the Russians euphemistically called the 'tempo press' was not a press at all but a highly sophisticated 'torso jerk'. After the clean the lifter pushed his hips far forward to make a 'bow' out of his back. Upon the press command he explosively went from the extended to the ramrod straight position tossing the barbell forward and up. Imagine a partial Roman chair situp (in fact, weighted Roman chair situps were used as an assistance exercise). By the time the athlete was standing straight the bar had been body slammed as high as the chin. At that point he quickly leaned back again, performing a 'second dip' of sorts with his trunk, then leaned into the weight and pressed out what was left.

The "tempo press".

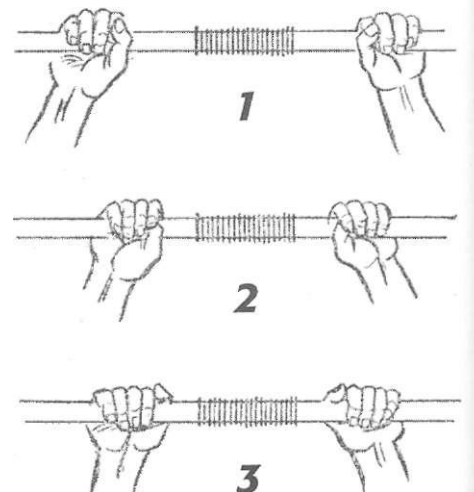


## THE GRIP

There are three ways to grab the bar—with a regular grip, a hook grip, and a false grip. The grip where the thumbs wrap the bar but do not get hooked was generally preferred by the Russians.

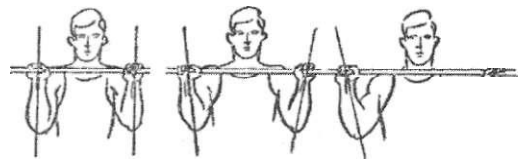
If you press very heavy you may have to hook. "When I was pressing I did use the hook grip when cleaning but when I racked the weight I released the thumb," recalls Mike Burgener, RKC.

The three types of grip.



The thumbless grip is ideal—but only if you have Captains of Crush® certified mitts. "The one-sided grip is advantageous because it allows to position the bar by the very wrist while the angle between the wrist and the forearm is the least [of all three types of grips]," explains Arkady Vorobyev. At least in theory. In practice it could be the opposite. The Olympic champion and professor warns that because the thumbless grip makes it so hard to hold on to the bar, the latter is likely to slip towards the fingers.

You can press with a narrow (the distance between the hands narrower than the shoulder width), medium (shoulder width), or wide (wider than the shoulders) grip. As expected, athletes with strong triceps and a powerful start will do well with the narrow grip and the wide grip benefits those with stronger delts. The medium grip spreads the load evenly between these muscle groups. Rodionov recommended a wide grip for athletes with kyphosis and/or poor shoulder mobility.



**Pick your grip width.**

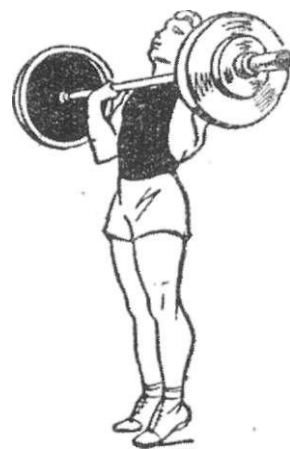
## BREATHING

Exhale when you are about to clean. Inhale, but not fully, and hold your breath for the duration of the clean and press. Beginners were advised to make an extra shallow exhalation and an inhalation with the bar on the chest after the clean.

When doing repetitions, partially exhale on the negative, inhale with the bar on your chest, and press. Hold your breath when pressing.

## THE CLEAN

Young Marty Gallagher learned how to weightlift from photos in *Strength & Health*. Until his first meet he had had been under the impression that the clean had to be completed in one movement, with no knee dip whatsoever. As a result of this fortunate mistake he developed a killer pull with a full extension and a gorilla set of traps. Adding a dip on top of that solid pull was a piece of cake. At the age of seventeen Marty would win his first National Teen title in weightlifting and set an AAU National Junior record in the press with 260 at 198. My guess is, most guys could get a decent clean if they followed in Gallagher's footsteps.



**The no dip clean technique by Roman.**

Rodionov did consider the no dip clean ideal while recognizing that few WLMs could pull it off with max weights. Here is a variation of the no dip technique described by Roman. When the bar touches the chest extend the body and go up on your toes. When your heels come down the barbell will be exactly where you want it for the press.

Although a number of lifters used this technique, Roman was not a fan of it because when the weight was heavy it sometimes knocked the athlete on the chest and made him step back. That obviously wasted energy and 'leaked' tension. That said, unless you have David Rigert's strength and tempo press skill—436 at 198, anyone?—you should manage to muscle clean your max press poundages. If not, clean with a slight dip and without moving your feet.

Teaching the clean is outside the scope of this piece, besides, I am not the man for the job. If you don't know how and don't have a coach, I suggest that you get Dan John's *Everything's Over My Head* DVD from [www.DaveDraper.com](http://www.DaveDraper.com). Note that when cleaning for the press you will not be lifting your elbows as high as you would for the jerk.

## READY TO PRESS



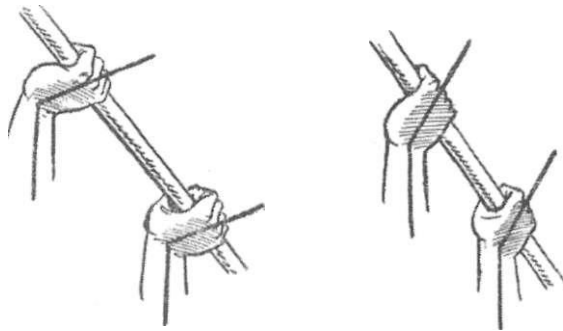
**If you must dip, at least don't move your feet.**

Rodionov's research determined that the press is the strongest when the athlete stands with his feet shoulder width apart. You are weaker in a wider stance and even weaker in a narrower one. An additional consideration is spine mobility. If the athlete has a tendency to lean back excessively, a narrow stance is recommended to make the back stiffer. On the other hand, lifters with restricted mobility will benefit from a wider stance because a slight back bend is needed in order to 'wedge' oneself between the bar and the platform. A ten to twenty degree turnout of the feet is optimal for most, although parallel and even tuned in positions were not unheard of.

Open and lift your chest. Tilt your head slightly back. Lift your chin and spread the shoulders—the opposite of kettlebell lifting. Push the hips slightly forward so the weight of the bar is projected over the center of your feet and tense your glutes and legs. Some back bending is unavoidable with max poundages, even in the strict press. But try to bend in your upper rather than lower back as Stogov does in photo 5. Not only will your press look stricter, you will have an easier time holding the barbell in place.

When you rack the bar, most of its weight should rest on the chest, rather than the arms. The arms are only semi-tensed. Not the rest of the body. The chest is high, the back is taut, the glutes are cramped. Roman warns that if your lower back and glutes are slack, the pressing effort will make your body 'settle down' while the bar will stay in place. Only once the slack has been taken out of the body, will the bar move. Obviously, this is a waste of strength. This is exactly what we have seen at our booth at the Arnold Expo when we challenged bodybuilders to press a bulldog—arms and shoulder strength sucked into the swamp of a slack body and a failed press. So stay tight!

Soviet weightlifting authority V. Rodionov demonstrated that the lifter is at his strongest when he starts the press with the bar 3-5cm (a little over 1" to 2") below the clavicles. Of course, this did not apply to the tempo press where the bar rested high because the delts were not really needed for the start. Presses with the bar right below the collarbones were weaker. Above the collarbones—w weaker yet. Nevertheless, Rodionov did not recommend an exaggeratedly low bar position because, although it provided a better pre-stretch of the shoulders, it also considerably increased the distance the bar had to travel. So aim for a happy medium between loading the delts and reducing the range of motion. The length of your forearms is obviously a factor. Rodionov allowed that lifters with long forearms may rack the bar on the clavicles.



**The correct wrist position is on the right. The left one is asking for weakness and injuries.**

Push your elbows slightly forward and inward. Press them against your body if you use a narrow grip. Don't lift your elbows high because it will put your deltoids into a contracted position and you will have nothing to start the press with.

For the strict press your elbows must be strictly under the bar or slightly in front of it, but never behind it. The elbows are 'stretch loaded', as Russian weightlifters would say.

The barbell is not a kettlebell, it will not tolerate neutral wrists as the bar would drift forward. The wrists need to be extended (bent back) to direct the drive up and back. Not too much though as hyperextension leads to weakness and wrist ligament injuries.

It is worth noting once again that the wrists and arms should be semi-tensed, not completely relaxed. Recalls Prof. Alexey Medvedev: "...together with [my coach] Roman Pavlovich [Moroz] we decided to review my positions in the press, the lift I had especially weak results in. We sat down and started watching tapes again. It turns out that there was a mistake holding me back... When the barbell was on the chest I relaxed my wrists a little before the start of the press. At that moment the elbows shifted slightly back. An unnoticeable, invisible to the eye movement. But it turned out to act like a brake. The elbows pushed to the rear made the wrists go forward during the start of the press and therefore sharply pushed the bar forward. To counterweigh this, the body leaned back assuming a position forbidden by the rules."



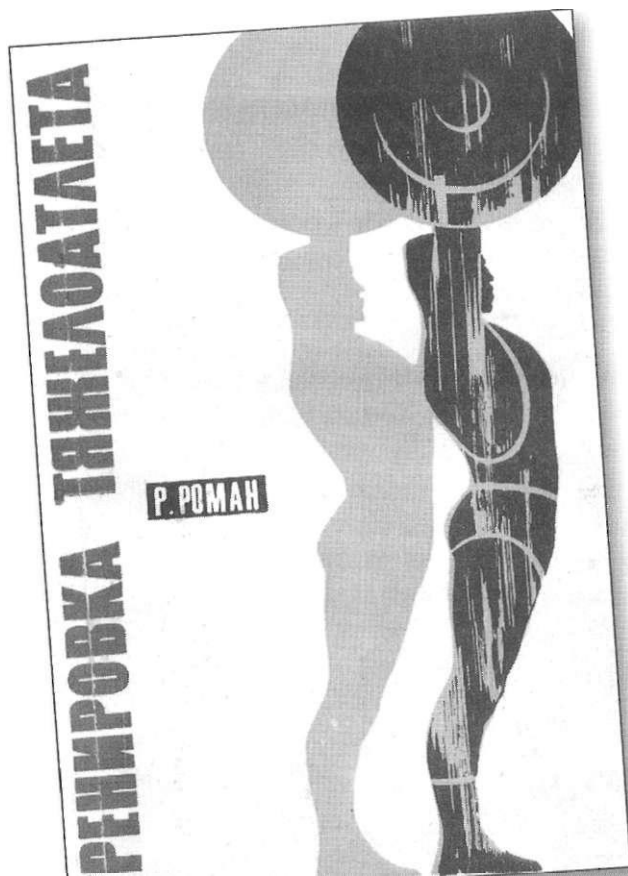


## PRESS!

It is very important to understand that the first half of a strict press is essentially a front delt raise. Which means that it is your elbows that should be driving the weight and not your hands. Don't squeeze the bar hard and don't shrug your shoulders. Pretend that you have no upper arms and the bar rests on the tips of your elbows. Now do a 'front raise' while keeping your forearms vertical.

Shoulders rising with the elbows is a typical mistake. It might mean that your arms are too tight.

Some athletes pushed their elbows back, then explosively drove them forward to the optimal position slightly in front of the bar, a way to gain momentum. Rodionov adds that you must push your elbows in, as well as up, to gain leverage. This is the same thing as *The Naked Warrior* 'corkscrew'. However, warns the Russian expert, don't overdo it with the inward elbow pressure as this would have three undesirable consequences. First, it would push the bar too far forward. Second, the delts and the muscles lifting the scapulae would not be fully loaded. And third, you will lean back farther.



The classic press cover of Robert Roman's 1968 weightlifting textbook.

From the bird's eye view of the athlete his elbows should be pointed out at a forty-five degree angle at the beginning of the drive off the chest. Don't flare the elbows until later! A premature elbow flare disables the strong front delts. Which is what happened in super strict old time presses. Before 1950, recalls Rodionov, when a slightest back bend got a lifter redlighted, athletes had to lean forward immediately at the start, push the head forward and down, and flare the elbows very quickly.

Some Russian weightlifters opened their hands waiting for the press command, then crushed the bar when the press began. Rodionov insists that the arms must be unloaded until the ref's command, which came a full 2sec after the rack. He instructs that you must hit the sweet spot in the arms' and shoulders' tension when you are ready to blow the bar off the chest. Excessive tension fires up the antagonists but relaxation is 'the worst mistake'. The glutes must be locked tight, though. Roman also warns against crush gripping the bar at the start of the press and stresses that it is the upward movement of the elbows that gets the bar going.

"In the first half of the press the shoulders are the main axis of rotation. However when the elbows reach the shoulder joints' level, the center of rotation shifts to the elbow joint," concludes Rodionov. The delts stop working when the upper arms are parallel to the deck. Triceps time. Instead of pushing the bar up, push yourself away from it, advises Olympic champion Arkady Vorobyev. Sounds familiar? At this point you might lean back somewhat, but no more than the rules (pick which ones!) allow.

Press as close to your forehead as possible. When the bar is somewhat above your head, flare the elbows, push your head and shoulders under the bar and finish the press pushing slightly back. But don't do it too soon or you will have a hard time locking out.

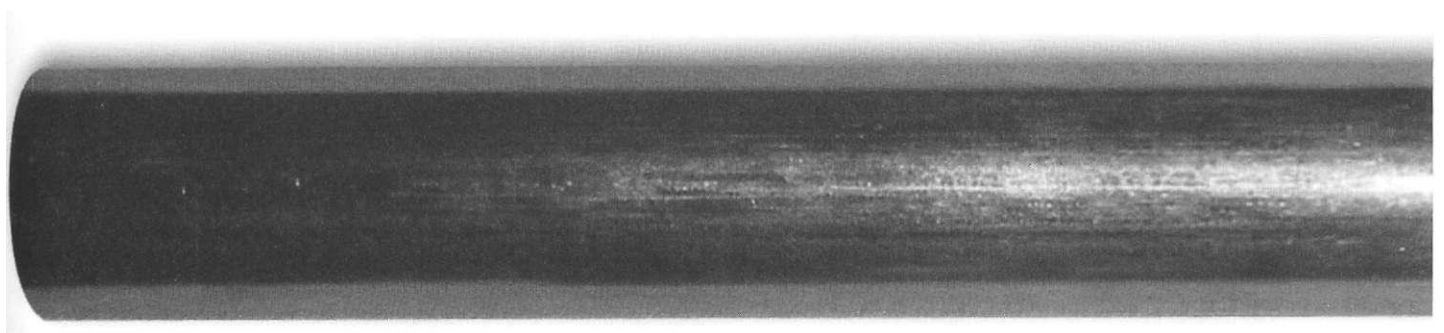
If you are tight in the shoulders you may have a hard time locking out properly. Vorobyev warns that it is bad news for your spine as you are likely to hyperextend it.

If the bar stalls above your head, Rodionov offers two reasons why this may have happened. One is leaning forward into the press too soon, right after the start. Another is not staying with the press; some athletes have a strong start and then 'lose the barbell'. The scientist stresses that you must finish the press with one effort, without slacking off after the start.

Press as close to your forehead as possible. When the bar is somewhat above your head, flare the elbows, push your head and shoulders under the bar and finish the press pushing slightly back. But don't do it too soon or you will have a hard time locking out.

If you are tight in the shoulders you may have a hard time locking out properly. Vorobyev warns that it is bad news for your spine as you are likely to hyperextend it.

If the bar stalls above your head, Rodionov offers two reasons why this may have happened. One is leaning forward into the press too soon, right after the start. Another is not staying with the press; some athletes have a strong start and then 'lose the barbell'. The scientist stresses that you must finish the press with one effort, without slacking off after the start.



## THE RUSSIAN CLEAN & PRESS TECHNIQUE SUMMARY

- Grip the bar shoulder width apart if you have equally strong shoulders and triceps. Bring the grip in if your triceps are stronger and out if your delts are.
- Clean the bar with a regular, not hook, grip. If you have a very strong grip you may use a false grip.
- If possible, clean without a knee dip. Catch the barbell precisely so the bar is exactly where you want it for the press. When the bar is in the rack don't lift your elbows as high as you would before jerks; they should be only slightly in front of the bar.
- Press from a shoulder width stance, your feet slightly turned out. Bring your stance in if you have a tendency to lean back excessively. Bring your stance out if your back is very stiff.
- Push the hips slightly forward so the weight of the bar is projected over the center of your feet and tense your glutes, legs, and back. Lift your chest high and slightly arch your upper back. Spread your shoulders, tilt your head slightly back, and lift your chin.
- Rest the weight of the bar on your chest, 1-2" below your collarbones, rather than your arms.
- Don't crush the bar, keep your arms semi-tensed. The wrists need to be bent back slightly to direct the drive up and back.
- Push your elbows slightly forward and inward. Your shoulders must be down and maximally stretched.
- Start the press with your deltoids by pushing up with your elbows. Your elbows should be pointed out at a forty-five degree angle at the beginning of the drive.
- An optional technique: push your elbows back, then explosively forward for a dynamic start.
- An optional technique: open your hands with the bar on your chest, then close them explosively when you start the press.
- Engage the triceps and push yourself away from the bar while slightly extending the upper back when your upper arms are parallel to the ground.
- Press as close to your forehead as possible. When the bar is above your head, and not sooner, flare the elbows, push your head and shoulders forward under the bar, and finish the press pushing the barbell slightly back.
- Exhale when you are about to clean, inhale but not fully, and hold your breath throughout the clean and press. When doing repetitions, partially exhale on the negative, inhale with the bar on your chest, and press. Hold your breath when pressing.

I will wrap up with an excerpt from a 1963 short story by Yuri Vlasov who, like Marty Gallagher, is not only an accomplished lifter but also an exceptional writer.

*"... I step out on the platform, just behind me is my coach. In front—a large hall, silence, and the barbell. A record weight on the bar.*

*I adjust my singlet, my belt. I sniff ammonia from a cotton ball in my coach's hand. I approach the barbell and try the bar... An excellent bar. The knurling cuts into the skin. It is sharp, not worn out by hands. We call such knurling 'mean'. Like sandpaper, it ruthlessly rips the skin off the chest and the neck, leaving purple gashes. In return you get a death grip. The fingers will not open.*

*... I close my eyes and let my muscles go. The body hangs loose like a whip. I read my favorite poem. A ritual. It wakes me up and helps me gather myself "... To overcome yourself!"*

*To overcome yourself!*

*To overcome!*

*...The bar is on my chest. Air. I took a sip and froze. The muscles are locked. I shift the weight to my chest freeing the arms from the weight... The wrists are relaxed. The elbows are tucked against the body... Command! I grew into the effort. The bar has jumped off the chest and is on its way up. Ringing in my ears.*

*Humming of taut muscles. Like rumbling of bass strings.*

*To make it through the dead spot. The nastiest moment. One muscle group, shutting down, passes the effort to the next. And the next one is at an extremely unfavorable position and can't produce maximal power. The barbell could stop here and the fight could... end.*

*I press myself into the effort! Such a feeling as if I have pressed myself into some mold! And pressed in with full force. But I still keep compressing somehow!*

*...A scream fell like the wall of a tall building. People scream. The scream drives me on.*

*I am not surrendering. I am pushing with my arms with the last drop of strength left. My whole being is in the music. The bass strings roar at their limit—the most powerful muscles. The groan of small, tiny fibers joins them.*

*I am balancing with my torso. My feet are rocking in the shoes but the shoes are immobile. You may not lift them off the floor. Forbidden by the rules.*

*I am listening to the barbell overhead. Listening as one big ear.*

*To hold!*

*Sharp pain in the spine. As a kick with a boot.*

*Nothing around me but a jagged mottled spot. And from it—people's scream. It holds me up. Makes me not listen to the pain and straightens out my arms all the way.*

*"Guee!"*

*"Yes!"—the ref's voice.*

*Fatigue immediately fell on me like a huge wet bed sheet.*

*I was coming home... Excitation was dying out in waves. But I kept walking and walking. And the joy was impossible to suppress..."*



# How the Russians Pressed Overhead

## PART II: THE TRAINING

The greatest rock 'n roll band of all time, the Rolling Stones have inspired many famous rockers. The same could be said of the 1960s Soviet system of press training. It was the forerunner of two out of the three dominant powerlifting methodologies of the XXI century, Sheyko's and Simmons'. I will even go out on a limb and assert that should a powerlifter apply the Soviet Olympic press methodology to his sport exactly as described, with appropriate assistance exercises and an obvious decrease in frequency, his results will be second best to none. Because the Stones still rule.

### LOADING FOR THE CLASSIC PRESS

The competition press was respectfully called the 'classic press'. It was typically trained every other day. Light local exercises for the pressing muscles were allowed on the off days.

Reps never climbed above 5-6 in the classic press, even with light weights. After ramping up with 60-75% poundages the weightlifter did most of his work sets in the 80-90% range, mostly with doubles and triples. Once a week he maxed. Soviet specialists believed that one could max the press this often because it is less stressful on the nervous system than the C&J and the snatch.

Almost a decade before Prilepin, Roman identified the correct number of lifts for the given percentages: 6 lifts at 90%, 4 lifts at 95%, 2 lifts at 95-100%. "It would seem that the more often one lifts optimal weights in the classic and special-preparatory exercises, the quicker the results will grow. But it is practically impossible as systematic training with large weights (especially 90-95%) in the classic exercises leads to the exhaustion of the central nervous system and the athlete in the end will not be able to lift such a weight. Therefore, another condition for the growth of results is the optimal number of lifts of a barbell of a given weight in the classic and special-preparatory exercises."

While Russians kept their 90% and up reps in check, they did not hold back with the overall workout volume. It routinely reached and even topped 50 reps when you added up classic and special presses. Soviet coaches usually divided this load into two and even three series separated by other unrelated exercises like snatches and squats as seen from the following sample lesson plan by Robert Roman:

1. Muscle snatch. Come up on your toes but don't go into a second dip. (4 sets)
2. Press. (6 sets working up to max)
3. Snatch. (8-10 sets)

4. Back squat. (5 sets)
5. Wide and narrow grip press. (6 sets of 6 reps alternating between grips from set to set)
6. Good morning. (3 sets)

The commies believed that switching to a different exercise served as active rest. If you have been mining for uranium, surely you will find logging in Siberia a welcome break?

### SAMPLE PRESS VOLUME DISTRIBUTION IN A WORKOUT, NUMBER OF BARBELL LIFTS (NBL) (BASED ON ROMAN, 1968)

In the beginning of the practice	In the middle of the practice	In the end of the practice
30	20	
30		20
	30	20
20	15	15

### A TRAINING SESSION BY VOROBYEV

Arkady Vorobyev, an Olympic champion and professor, advocated somewhat lower training volumes than his colleagues, no more than 30-40NBL per workout. Still, he fragmented his press workload, doing 5-6 sets in the beginning, in the middle, and in the end of the training session. Here is what an experienced weightlifter's Vorobyev style press workout looked like.

Take a weight 40-45kg below your maximum and press it 3-4 times. Add 10kg and do another triple. Then go to the main training weight that is 10-15kg below 1RM. Do 5-6 sets of 2-3 reps with it. That is the end of the first series.

Because of the high back stress in the standing press Vorobyev, like his colleagues, advocated mixing in inclines, weighted dips, and other pushing exercises that were easy on the spine. In the second series he might do benches and in the third parallel bar or ring dips. That made for three progressively less specific types of presses separated by non-related exercises.

Next workout Vorobyev's athlete might start with classic presses in the same fashion, then, after 'active rest' with other drills, he would press with a wide or narrow grip (alternate from workout to workout) for 3-4 sets of 2-3 reps with a heavy weight.

In the third practice the classic press was replaced with the push press. Later in the session the athlete did incline benches. In workout number four the lifter maxed in the flat bench press and then pressed taking the bar off the stands instead of cleaning it. Other possibilities included classic presses followed by bench presses, push presses followed by presses from the stands, and many others.

All of the Soviet WL greats insisted that the loading must be 'wavy'. Vorobyev had designed a foolproof unloading workout that he put into the rotation once fatigue had built up after a series of hard workouts. Stay with 50% weights and do only 1-2 reps per set. For an hour and a half do only your favorite exercises and don't try hard. Vorobyev assures that after such a recovery session you will be able to go back to the heavy grind.

## SETS AND REPS BY ROMAN

Robert Roman, another champion and superscientist, put together many simple and effective set and rep schemes for the press. He preferred writing training plans in kilograms rather than percentages. I have made conversions but don't follow them literally, just jump 5-10kg or 10-20 pounds from set to set and arrive in the ballpark of the listed percentage.

The first four set and rep schemes are for a beginner with a 60kg, a hair under 135 pounds, press. The first two are to be used when the athlete is fresh, the last two when he is relatively fatigued later in the workout.

### 1. BEGINNER, EARLY IN THE WORKOUT

40kg x 4/2 (reps/sets), 50kg x 3/4 (based on a 60kg max)

**67% x 4/2, 83% x 3/4**

### 2. BEGINNER, EARLY IN THE WORKOUT

40kg x 5, 45kg x 4, 50kg x 3/2, 55kg x 2/2 (60kg max)

**67% x 5, 75% x 4, 83% x 3/2, 92% x 2/2**

### 3. BEGINNER, LATE IN THE WORKOUT

Alternate sets with a narrow and a wide grip.

35kg x 5, 45kg x 4/4 (60kg max)

**58% x 5, 75% x 4/4**

### 4. BEGINNER, LATE IN THE WORKOUT

Alternate sets with a narrow and a wide grip.

40kg x 4/2, 50kg x 2/2, 45kg x 3 (60kg max)

**67% x 4/2, 83% x 2/2, 75% x 3**



For more experienced lifters Roman recommended around 8 sets of the classic press (together with press variations the sets numbered 12-15) when training with medium, 75-85%, weights. Here are some workouts to choose from.

#### 5. EXPERIENCED ATHLETE, MEDIUM INTENSITY

50kg x 4, 60kg x 4/2, 75kg x 4 (92.5kg max)  
 54% x 4, 65% x 4/2, 81% x 4  
 NBL @ 75-85% = 4

#### 6. EXPERIENCED ATHLETE, MEDIUM INTENSITY

55kg x 4, 65kg x 4, 75kg x 3/6 (92.5kg max)  
 59% x 4, 70% x 4, 81% x 3/6  
 NBL @ 75-85% = 18

#### 7. EXPERIENCED ATHLETE, MEDIUM INTENSITY

50kg x 4, 60kg x 1, 70kg x 3, 80kg x 2/5 (92.5kg max)  
 54% x 4, 65% x 1, 76% x 3, 86% x 2/5  
 NBL @ 75-85% = 13

#### 8. EXPERIENCED ATHLETE, MEDIUM INTENSITY

In this plan Roman alternates sets with heavier and lighter weights, a practice that would become common in Russian powerlifting four decades later.

50kg x 4, 60kg x 4, (70kg x 3, 75kg x 3) / 3 (92.5kg max)  
 54% x 4, 65% x 4, (76% x 3, 81% x 3) / 3  
 NBL @ 75-85% = 18

#### 9. EXPERIENCED ATHLETE, MEDIUM INTENSITY

70kg x 3/2, 95kg x 3/2, 100kg x 3/4 (120kg max)  
 60% x 3/2, 80% x 3/2, 85% x 3/4  
 NBL @ 75-85% = 18

#### 10. EXPERIENCED ATHLETE, MEDIUM INTENSITY, PREPARATORY PERIOD

The volume and reps are higher in this workout because it belongs in the preparatory period.

60kg x 6/2, 75kg x 6/2, 80kg x 5/2, 85kg x 4/2 (100kg max)  
 60% x 6/2, 75% x 6/2, 80% x 5/2, 85% x 4/2  
 NBL @ 75-85% = 30

For heavier loading Roman laid out several choices. He warned not to follow any one of them more often than once every 7-10 days, and only when your body is ready to go all out. Note the correct volume in the high intensity zones.

#### 11. EXPERIENCED ATHLETE, MAXIMAL INTENSITY

50kg x 3/2, 70kg x 2, 80kg x 1, 90kg x 1, attempt 92.5kg x 1 (90kg max)

56% x 3/2, 78% x 2, 89% x 1, 100% x 1, **attempt** 103% x 1

NBL @ 90% = 1, NBL @ 100% = 2

#### 12. EXPERIENCED ATHLETE, MAXIMAL INTENSITY

60kg x 3/2, 75kg x 1/2, 85kg x 1/2, 95kg x 1, 100kg x 1 (100kg max)

60% x 3/2, 75% x 1/2, 85% x 1/2, 95% x 1, 100% x 1

NBL @ 95-100% = 2

#### 13. EXPERIENCED ATHLETE, HIGH INTENSITY

70kg x 4/2, 90kg x 3, 100kg x 2, 115kg x 1/4 (120kg max)

60% x 4/2, 75% x 3, 85% x 2, 95% x 1/4

NBL @ 95% = 4

#### 14. EXPERIENCED ATHLETE, HIGH INTENSITY

85kg x 3/2, 105kg x 3, 120kg x 3, 125kg x 2/3 (140kg max)

60% x 3/2, 75% x 3, 85% x 3, 90% x 2/3

NBL @ 90% = 6

## ASSISTANCE EXERCISES FOR THE PRESS

Roman was convinced that it is impossible to achieve high press numbers without a variety of assistance exercises.

Vorobyev advocated dedicating as much as 50-80% of the total workload to assistance work.

Rodionov stressed: "The results in the classic press depend on the growth of results in special exercises." That said, he warned that, "One should not get carried away with the special exercises. Still, the classic press remains the main exercise."

The scientist recommended including 2-3 press exercises into a single workout, at least one of them very similar to the classic press. He gave two very important guidelines regarding assistance exercise selection. First, "the greatest attention must be paid to the exercises that lag behind the others." Second, "If the athlete notices that a significant improvement in a given special exercise has no effect on the growth of the results in the classic press, then this exercise should be excluded from training and replaced with another."

The special presses' volume was usually slightly smaller than the classic press'. Roman prescribed 5-8 sets of 3-4 reps with medium, 75-85%, weights. Rodionov taught to mostly stay with the same training poundage in special presses, only increasing it once the classic press has gone up. Only occasionally would a Russian lifter max or near-max in a special exercise and finish with a back-off set of 4-6 reps with 60-70%.

Subtle variations of the basic exercises were common. "The width of the grip, the position of the body with the barbell, etc., the placement of the legs, etc. should be varied so the exercises do not become habitual and are performed with greater interest," wrote Rodionov. "For instance, the bench press can be done with a narrow and a wide grip, with the bar touching the chest at different spots on the chest (higher and lower), on benches with different degrees of the incline."

This leading Soviet weightlifting authority also recommended including additional development exercises into the morning recharge: pushups with the feet elevated, handstand pushups against the wall between chairs, kettlebell and dumbbell presses. These morning sessions were supposed to be low in volume and intensity and be limited to 20-30min.

Athletes with better classic press technique spent more time on special presses than those who needed to groove their skill. Long before the competition some did not practice the classic press at all and did only special presses.

Following are the assistance exercises most popular in the USSR for the classic press. Unless specified otherwise, a 'press' means a standing press.

## NARROW GRIP PRESS

A great exercise for developing starting speed and strength. Vorobyev sometimes used an ultra-narrow grip, with the hands almost touching each other for extra triceps stress.

In addition to building strength, this drill was used for correcting a premature elbow flare, a technical mistake that disabled the strong front delts.

## WIDE GRIP PRESS

This exercise was for athletes whose delts were lagging and who stalled as the bar cleared the eyes. Because the wide grip discouraged shrugging, this movement was also employed as a remedial drill to battle this tendency.

Grip widths ranged from a mere 3-5cm (1-2") wider than the competition grip to the snatch grip, but the typical width was 10-20cm (4-8") wider than the competition grip.

Narrow and wide grip presses were frequently alternated from set to set. Here is how Robert Roman taught to do it:

### 15. ALTERNATING WIDE AND NARROW GRIP PRESSES

60kg x 3/2, 70kg x 3/2, 80kg x 3/4 (100kg max)

60% x 3/2, 70% x 3/2, 80% x 3/4 (the percentages in special presses are based on the competition press' max)

## PRESS STARTING WITH THE BAR LOW ON THE CHEST OR ON THE STOMACH

A great stretch of the shoulders made them work through a greater range so they grew well. The pecs also got in on the action.

Roman liked to do this exercise with a narrow grip and emphasized the spreading of the rib cage. This built strength and helped fight the common shoulder-shrugging tendency.

## PRESS BEHIND THE NECK

An exercise for the triceps mostly and to a lesser degree for the upper back. Pick the grip that allows you to lower the bar as deep as safely possible because flexibility development is one of this drill's goals. Rodionov added that the PBN also helped to finesse a very precise drive groove.

Behind the neck presses were practiced with different grips. Remember that PBNs require above average flexibility to be done safely.

## BARBELL FRENCH PRESS

Hold your elbows high and don't let them move to work the triceps.

## ISOMETRIC PRESS

Roman approved of judicious use of isometric exercises at sticking points such as the press at the eye or forehead level. His recommendations were two 10min practices a week. The exercises had to be changed every 1-2 months. The Russians did see the point in reinventing the wheel and followed the Western recommendations regarding the intensity, duration, and number of the contractions.

## PRESS FROM THE EYE LEVEL

Another sticking point buster. Set the barbell in the rack at your eye level or slightly higher and drive.

## 1½ PRESS

If the stall above the head was the result of a weakness rather than a technical flaw, Rodionov's athletes lowered the bar after a full press to the forehead or eye level and pressed it back up.

## SEATED PRESS

This exercise isolated the shoulders and arms and was recommended to athletes who were lacking in that department. Rodionov considered the impossibility to lean back as another advantage. All I see is a great way to hurt your back.

## PRESS FROM THE STANDS

Unrack the bar from the stands set at your shoulder level and press. The drill teaches the proper starting press position and spares energy by giving a break from cleans.

## BENCH PRESS

Bench presses were popular because they allowed one to use heavy weights while being easy on the nervous system and the spine. Rodionov listed the floor press as an option, albeit less effective.

"The flat bench press is used in training by many athletes as it leads to a rapid growth of the results," writes Roman. "However, the results reached in the press in this position have absolutely no effect on the growth of the results in the standing press. Understandably, the question arises whether to include such a press into the workout." Roman gives an indirect answer: "The fact that should be considered favorably is the bench press significantly develops the musculature of the rib cage and thus creates a good 'platform' for a free and comfortable support of the bar on the chest in the press and jerk".

Rodionov pointed out that the bench, flat or incline, taught the athlete to press rather than kick the bar. He added that the BP acted as an active recovery means between other exercises and called it an 'unloading exercise'. Benches were also useful for teaching the lifter the skill to keep his shoulders down.

The flatter the bench, the less is the stress on the spine. The steeper the bench, the more specific is the strength gained to the classic press. Yuri Vlasov was known to use inclines as his main press-

ing exercise. The 60-degree angle, measured from the horizon, hit the sweet spot, according to Roman, but you were still advised to vary the bench incline angle. And the grip width, and the placement of the bar on the chest.

Vorobyev liked simple bench workouts along the lines of 75% of the bench max for 5 sets of 4-5 reps. Roman advocated benching three times a week working up to max and changing the grip width every workout. Start with a light weight for 4-5 reps and keep adding 5-10kg per set, lowering the reps as the weight goes up, eventually working up to 1RM. Typically 5-6 sets were done with the average NBL of 20. Roman also liked more formalized 654321 countdowns: 75% x 6, 80% x 5, 85% x 4, 90% x 3, 95% x 2, 100% x 1. The percentages are based on the max in the particular style of the BP rather than the classic press.

## COULD THE BENCH PRESS HAVE SAVED WEIGHTLIFTING?

Old time Soviet weightlifter and coach, later a powerlifter, Lev Shprints laments the death of the press in WL and the following decline of the sport. "It seems to me, it all began in 1972 when the International Weightlifting Federation took a rash decision to exclude the press from the classic three lift competition because of the difficulty of judging. Weightlifting started 'getting smaller' when athletes who had the speed rather than strength advantage got ahead as the exercise that demanded strength, the press, was no longer welcome. The appearance of the strongmen immediately changed—a solid 'top', well developed pec muscles, delts, and powerful triceps disappeared... And weightlifting itself started mutating from a [strength] sport to... a speed-strength sport such as... discus throw or shot put in track in field. Thus this decision became the beginning of the end of the only Olympic strength sport. However nature does not tolerate a vacuum and the now opened niche was immediately filled by powerlifting invented in the USA..."

Shprintz has a radical opinion on what could and should have been done to save WL. "If in 1972 they had not rushed to abolish the press but replaced this 'stubborn' lift with the bench press, easy to judge and well known to all weightlifters, not only would WL have remained a strength sport but they would have snatched the 'trump card' from budding powerlifting which is today crowding weightlifting from Russian platforms and have done that a long time ago abroad."

## SPEED PRESS

For speed and starting strength. Arkady Vorobyev was among the lifters and coaches who liked this movement.

## BAND PRESS

Stand on a rubber band attached to both sides of the bar and press. Rodionov noted an excellent training effect for the triceps and added that "the athlete learns to apply continuous effort during the press".

## SLOW PRESS

"Slow exercise performance makes muscular strength grow more [than fast]," insists Vorobyev. "Which is why such a press must be periodically included into the training."

## PUSH PRESS

Push presses and push jerks were used to accustom the lifter to a heavier weight. Heavier than usual weights also worked the triceps well and helped with the lockout. Push presses can be done from the chest or, if you have the flexibility, from behind the neck.

Push presses and push jerks were typically put up in singles, doubles, or triples, on their own or after strict presses. In the latter case the total volume of the classic and push presses was 30 lifts max and the push presses were limited to 4-5 sets. Typically, the first set of the push press was done with the same weight as the last set of the strict press and built from there to up to 110% of the classic press 1RM. Here is how Roman got the job done:

### 16. CLASSIC PRESS PLUS PUSH PRESS

Press 80kg x 3/2, 90kg x 3/2, 95kg x 2/3 (110kg max)

Push press 100kg x 2/2, 105kg x 2/2, 110kg x 1/2

Press 70% x 3/2, 80% x 3/2, 85% x 2/3

Push press 90% x 2/2, 95% x 2/2, 100% x 1/2

**17. CLASSIC PRESS PLUS PUSH PRESS**

Press 80kg x 3/2, 90kg x 3/2, 95kg x 2/3 (110kg max)

Push press 95kg x 3, 105kg x 3, 110kg x 2, 115kg x 1/1-2

Press 70% x 3/2, 80% x 3/2, 85% x 2/3

Push press 85% x 3, 95% x 3, 100% x 2, 105% x 1/1-2

**18. CLASSIC PRESS PLUS PUSH PRESS**

Press 60kg x 4/2, 80kg x 3/2, 90kg x 2/2, 100kg x 1 (105kg max)

Push press 100kg x 1, 105kg x 1, 110kg x 1, 115kg x 1

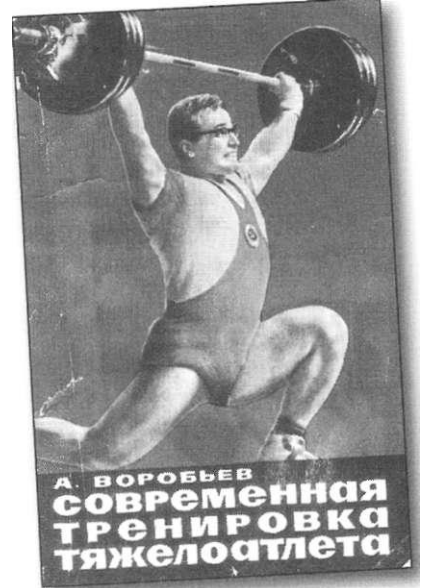
Press 57% x 4/2, 76% x 3/2, 86% x 2/2, 95% x 1

Push press 95% x 1, 100% x 1, 105% x 1, 110% x 1

**19. PUSH PRESS ONLY**

80kg x 2, 90kg x 2, 100kg x 2/2, 110kg x 2/3 (110kg strict press max)

70% x 2, 80% x 2, 90% x 2/2, 100% x 2/3



"You should not abuse these exercises," warned Roman, "as you might develop the habit to dip your knees before the press."

**PRESS START**

Take a heavy bar from stands and practice the bottom of the press only. The goals are the development of the starting and shoulder strength and honing the technique.

**CONSTANT TENSION LOWER HALF PRESS**

In addition to building strength this drill is used to combat the tendency to shrug the shoulders when pressing.

Unlike the last exercise that called for a lot of weight and effort, this one requires lighter weights and precision. Lower the barbell from a level a little higher than the head and touch your chest. Without resting the bar on the chest or relaxing, press the weight half way up. Keep your shoulders down at all times and direct the elbows up and in.

**MILITARY PRESS**

Rodionov favored the heels together stance in many of the standing press variations. A 'locked' lower back and legs made for very strict arms and shoulders efforts.



## ONE-ARM PRESS

This exercise was rarely used, mostly by lifters who had a lagging arm.

## KETTLEBELL OR DUMBBELL PRESS

A fine hypertrophy exercise for the shoulders and arms. Press your bells standing, seated, and lying down.

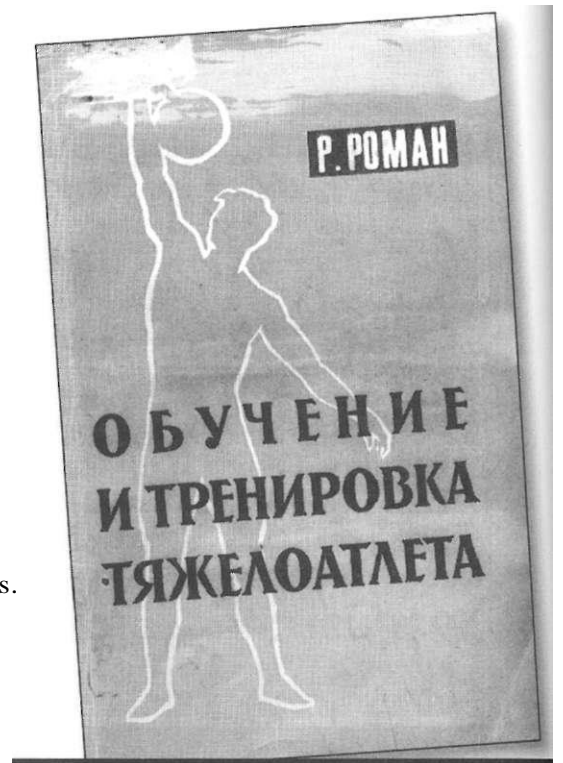
## FRONT AND SIDE RAISE WITH KETTLEBELLS OR DUMBBELLS

For building those cannonball delts weightlifters used to have.

## REVERSE SHRUG PRESS

Barbell and kettlebell presses with the emphasis on lowering the shoulder girdle at the instant of the press start were among the many remedial drills for lifters who had the tendency to start the lift with a shrug. Rodionov reminds that trying too hard is one of the reasons for the shoulders to come up. The shoulder girdle gets locked up and starts moving as one unit.

In addition to the above barbell presses, development exercises with tools such as kettlebells, dumbbells, bodyweight, rubber bands, spring loaded expanders, etc. were also recommended. "The localized effect of these exercises on select muscle groups has a positive influence on the growth of high results," assured Rodionov.



Above: The kettlebell press on the cover of Robert Roman's 1962 weightlifting textbook.

Below: The logo of the First National Powerlifting Competition—*Could Not Have Done It Without A Kettlebell!*



## HANDSTAND PUSHUP ON PARALLEL BARS OR CHAIRS

Use parallel bars or two chairs set near but not next to a wall. After kicking up into a handstand bend one knee and place your foot on the wall. The other leg will remain straight and its foot will also slide up and down the wall. Extra weights may be attached to the torso. Vorobyev recommended including this exercise into warm-ups before weightlifting practices and into the morning recharge.

## PARALLEL BAR DIP

Vlasov loved the spine stretching effect of this exercise. Rodionov attached weights to the waist but Vorobyev preferred hanging kettlebells on his feet.

## PUSHUP

Elevate your feet or add weight. To remedy the problem of uneven extension in the press Rodionov prescribed regular and handstand pushups with more weight shifted to the weaker arm.

## PERIODIZATION

Given the fact that we were born too late to compete in the classic press, I will not waste your time and mine by discussing meet preparation for this lift. Just take a couple of easy days and max. Overhead power to you!

# RUSSIAN CLASSIC PRESS TRAINING SUMMARY

- Press every other day varying the volume, the intensity, and the exercises.
- Do low volume and low intensity exercises for the arms and shoulders such as kettlebell presses and handstand pushups on alternate days and/or in morning sessions.

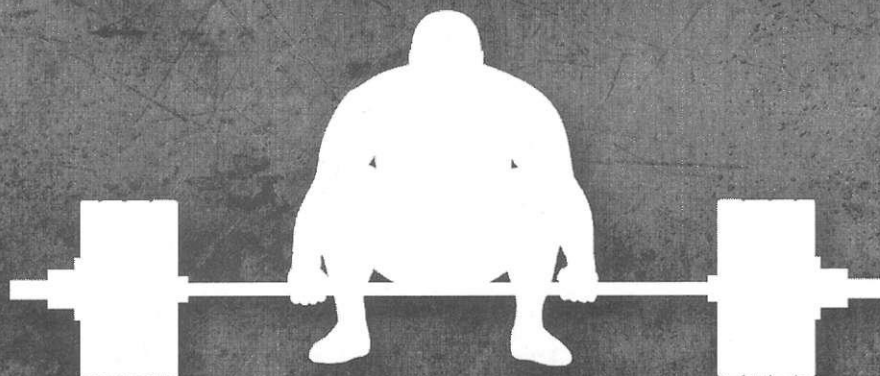
- Do 2-3 press exercises per workout, at least one of them the classic press or an exercise very similar to it.
- Fragment your press workload over 2-3 series spread over a workout with unrelated exercises practiced in between. Typically start with the classic press in the first series, do standing press variations in the second series, and less specific exercises like bench presses and dips in the third series.
- The volume of pressing exercises ranges from below 30 to over 50 reps per workout.
- Wave the load. If you are on the verge of overtraining, take an unloading workout, your favorite exercises with 50% weights for singles and doubles.
- In the classic press never do more than 5-6 reps, even with light weights.
- Ramp up with 60-75% weights to your work sets.
- The main training weight is 80-90%. The rep count for it is 2-3.
- The correct volume with heavy weights: 6 @ 90%, 4 @ 95%, 2 @ 95-100%.
- Max approximately once a week, preferably on Wednesday or Thursday.
- Do assistance exercises but not at the expense of the classic press practice.
- 5-8 sets of 3-4 reps with medium weights is a standard special exercise protocol. Max occasionally.
- The primary barbell press variations are: press with a close or wide grip, heels together strict military press, press starting with the bar low on the chest, press from the eye level, press from the stands, flat and incline bench press, speed press, press with bands, slow press, push press, press start.
- Focus on the special exercises you are especially weak at.
- If the weight in a special exercise jumps significantly while the classic press does not improve, drop this exercise.

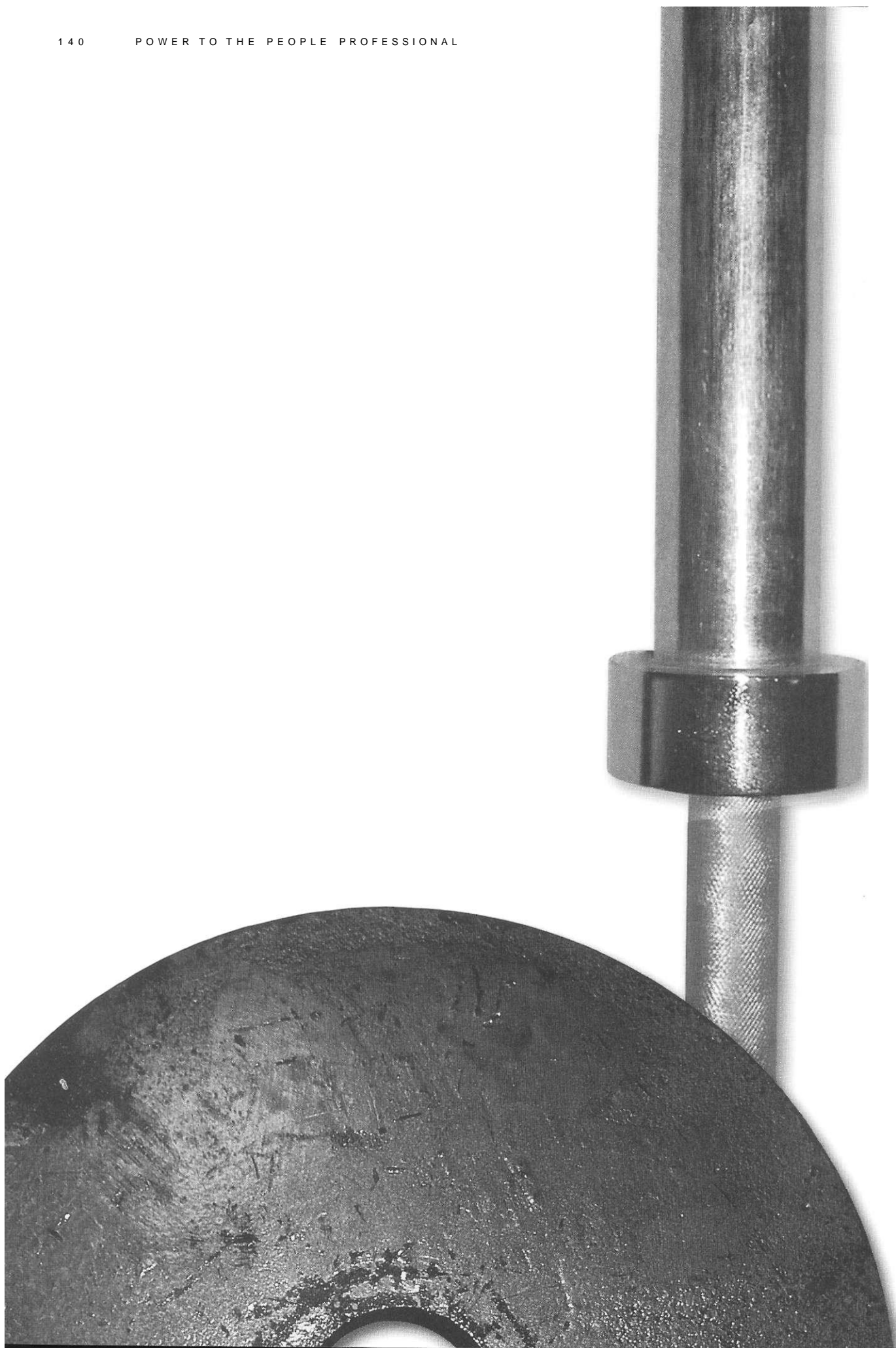
I hope that you have learned more than how to train the overhead press from this piece. You are bound to get great ideas for training the powerlifts, weighted pullups, and other lifts. An analytical reader can't help noticing that the Soviet Olympic press training methodology contained the key elements of Sheyko's and Simmons'. The Russian PL mastermind has borrowed the ideas of practicing a lift in multiple series divided by other exercises, high frequency training, and a religious tracking and waving of the number of lifts and the intensity. Boris Sheyko's American counterpart, Louie Simmons, has picked up speed presses, band presses, a variety of special exercises, and additional mini-workouts with the local hypertrophy emphasis. Very few powerlifters, with the notable exception of Jack Reape, have had success combining elements of the WSB and Sheyko's systems. This is ironic, given these systems' common roots. I hope this piece will change that. "You can't always get what you want", but getting strong should no longer be a problem.

**CHAPTER**

**IV**

**PULL**





## CHAPTER IV: PULL

# Latvian Deadlift Secrets, or How to Pull 948 Pounds

**T**o the uninitiated it was one of the ugliest looking deadlifts. The Latvian lifter in professorial glasses pulled with a hump reminiscent of Inspector Clouseau's Quasimodo disguise. Yet the monstrous weight went up without a hitch. Konstantin Konstantinov cracked a friendly, decidedly non-Soviet smile that stated that he was not maxed out. The weight on the bar was 948 pounds.

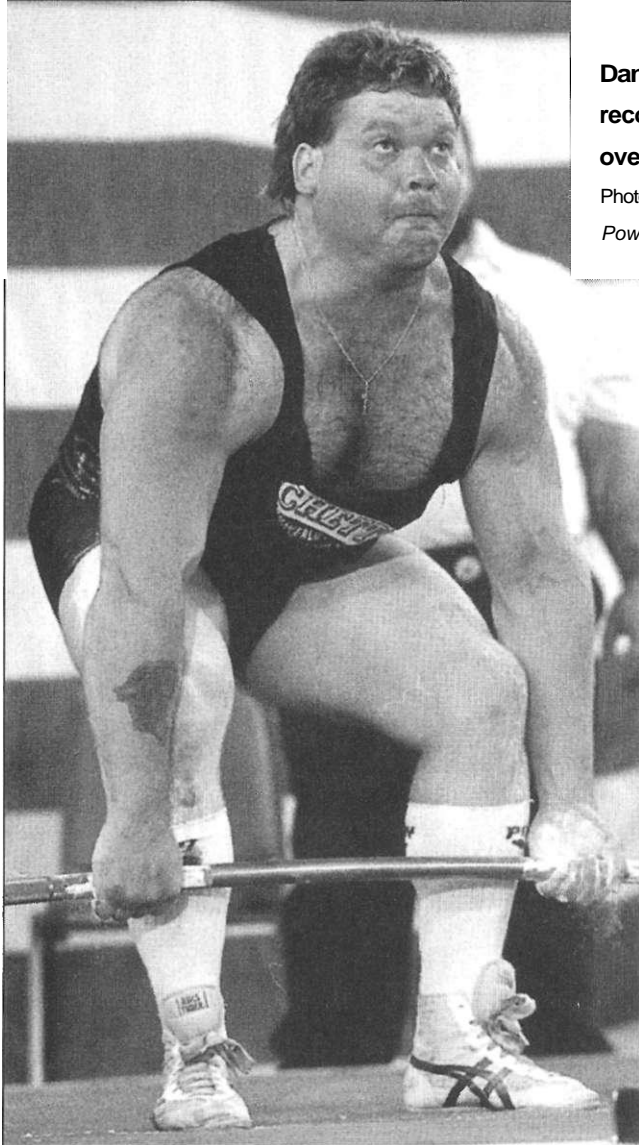
## THE BEGINNING

Konstantin Konstantinov was born in a small town in Latvia, back then, in 1978, a part of the Soviet Union. As many Soviet kids he sampled a number of sports: gymnastics, judo, wrestling. Soviet wrestlers were fanatical about strength and Konstantin was introduced to the barbell at his wrestling practice.

At the age of fifteen Konstantinov was already deadlifting 474 pounds weighing a buck sixty at the height of almost six feet. He fell in love with strength and when he turned seventeen he started to train like a powerlifter. He did not have a PL coach then and does not have one now. Konstantin learned what he needed to know from books and magazines.

## THE 'UNBREAKABLE' RECORD FALLS

The absolute world deadlift record in the 275-pound weight class, an awesome 904-pound pull by Dan Wohleber, had not budged since 1982. In 2003, a mere six years after he had started competing in powerlifting at the age of nineteen, Konstantinov added one kilo to the American's 'unbreakable' record: 906 pounds! This is how records fall at the elite level of competition—in



**Dan Wohleber's record had stood over twenty years.**

Photo courtesy  
*Powerlifting USA*

minute increments. Or at least this is how they usually fall. At a combined IPF/WPC championship in Riga in 2006 the Latvian superman stood up with a historic 948-pound deadlift, blowing away his own record by 42 pounds!

## KONSTANTINOV'S SYSTEM

Konstantinov achieved an 897-pound pull at 260 pounds of bodyweight following a system of training similar to that of the Westside Barbell Club. Then he hit a plateau and had to modify his training. "I have found my system," says Konstantin. "It is a combination of speed workouts, high volume workouts in the 75-90% 1RM range, plus many assistance exercises, like they do at Westside. This system has helped me achieve 430 kg [948 lbs.] and I am convinced that this is far from my limit."

Unlike many Russians and other former Soviets who have gone sumo, Konstantinov pulls conventional. The Latvian is an instinctive trainer. He pulls twice every nine to twelve days. He empha-

sizes recovery in his training and does not hesitate to take an extra day or two off if he does not feel rested.

On his heavy day Kostya trains his deadlift only. The workout typically lasts four hours. His primary exercise is the deadlift standing on an 8-10cm platform. Starting the pull 3-4" lower than usual builds a tremendous reserve of power and makes the competitive pull feel like a partial. Louie Simmons has said that regardless where your weakness is, at the start or at the lockout, the box deadlift—or the 'deadlift from a hole' as Russians call it—will fix it. "Doing box deadlifts will build the finish as well as the start. If you can increase your starting speed, it will carry over to the top portion of the pull. A sticking point can be eliminated by simply going through it fast enough. If that is not true, then you will get stuck with 200 at the knees just as easily as 400."

Konstantinov does a very high volume of pulls—up to twenty sets! To ease the pain he divides his workout into two 'stages' and rests for 20-30min between them.

"My reps are 3-5, I try not to lift limit weights in training," says the man. "I mostly focus on the volume." No belt, no straps, no suit.

The Latvian does touch and go deadlifts. He uses an IPF bar rather than a whippy WPC bar. The latter is great for competition dead stop singles but not for touch and go reps.

## THE HEAVY DEADLIFT DAY

### STAGE 1: COMPETITION DLS

120kg x 5/3  
160kg x 5  
200kg x 3  
240kg x 1  
280kg x 1  
320kg x 1  
360kg x 1  
390kg x 4 (90% 1RM)

Note that Konstantinov jumps 40kg, or 10% of his max, between sets. His top set is a whopping 860 pounds.

### 30 MIN REST

### STAGE 2: BOX DLS

170kg x 5  
220kg x 5  
260kg x 3  
300kg x 1  
340kg x 5 (79% 1RM)  
370kg x 5 (86% 1RM)

I have listed the percentages based on Konstantinov's competition style DL rather than his box DL. Since Soviet weightlifters started it decades ago, in the former USSR this is a common practice for logging assistance exercises.

## ASSISTANCE EXERCISES

- 45-degree hypers—60kg x 20/2
- Reverse hypers—50-70kg x 15-20/2
- Hamstrings—20/2. Konstantinov also does exercises for the glutes and the adductors.
- ° Different exercises for the midsection—15-25/6

## THE FAST DEADLIFT DAY

Konstantinov pulls his competition attempts with maximum speed and aggression and stresses explosiveness in his training. He does not call his other deadlift day 'light'; he calls it 'fast'.



He starts with weightlifting style squats—high bar and rock bottom. He wraps his knees and smokes five sets of five. Recently he abandoned PL style squats altogether in favor of WL squats. Konstantinov is convinced the latter are superior for developing a strong deadlift start. Keep in mind that at the moment Konstantinov is a DL specialist although he is planning to compete in all three events again.

Speed pulls are second. Eight to ten singles with bands. Konstantinov starts his dynamic effort cycle with 200kg or 440 pounds—not even 50% of his superhuman max—and adds 5kg per workout. The band tension adds 130kg or 287 pounds at the lockout.

The fast workout is wrapped up with the same assistance exercises as on the heavy day. Konstantinov stresses the importance of a strong midsection for a big deadlift.

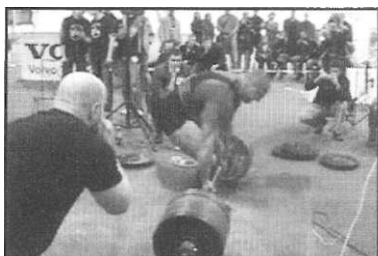
With the exception of the max pulls, he trains his deadlift without a belt and never uses straps. Grip is never a problem; Kostya has locked out 1,100 pounds and held it for 8sec!

The Latvian powerlifter has his sights on bringing down Andy Bolton's absolute world deadlift record. Power to you, Comrade!

## Round Back Deadlifts -Man Makers or Back Killers?

"Like most, I used to pull with a straight back maximally using my legs," says Latvian of Russian descent Konstantin Konstantinov who owns the 948 lbs. world record in the 275 lbs. class. "I got up to 340kg/749 lbs. but not any higher." Then he met Finn Ano Turtiainen, a WPC world champion and record holder. Ano suggested that Kostya round his upper back and in seven months the Latvian's deadlift jumped from 340 to 390kg—without any weight gain.

Does it mean you should drop your flat back deadlifts in favor of round back pulls today?—not so fast. Review the pros and cons of round back lifting and decide for yourself. But first watch Konstantinov pull at <http://www.youtube.com/watch?v=TK4UIxKIxtc>.



## ROUND BACK DEADLIFTING PROS

### 1. BETTER LEVERAGE

Bob Peoples who employed the round back style decades ago explained why it works: "A round back is shorter than a flat back." And a shorter back is a stronger back.

### 2. STRONGER QUADS

Looking down goes hand in hand with round back lifting.

While it is common knowledge among serious powerlifters that extending the neck fires up the posterior chain via a 'pose reflex', few know that neck flexion amplifies the quad strength (Smirnov & Dubrovsky, 2002). Thus looking down will give you a stronger start.

'Down' is relative. Konstantinov looked down—straight down—until he almost locked out his unreal 948 lbs. Louie Simmons recommends to pick a spot somewhere between straight ahead and the spot on the platform six feet in front of the lifter. Trial and error.

### 3. A STRONGER MIDSECTION

"Use the [back] bow technique and you will find yourself developing a thicker waist, because of the pressure created in the abdominal region and from thickening of the lower back muscles." Weightlifting immortal Tommy Kono made the above observation about squats but it applies just as much to pulls.

Looking down reduces the tonus of the erectors but increases the tonus of the abdominal wall (Smirnov & Dubrovsky, 2002). At first glance this is bad news; the deadlift is an exercise in extension, not flexion. But only at first glance. I have written extensively about the key role of the diaphragm and the abdominal wall in spine stabilization and even extension elsewhere so I will not be redundant. The point is, strong abs are a must for a big deadlift and looking down and rounding your back makes them stronger.

## ROUND BACK DEADLIFTING CONS

### 1. A WEAKER BACK

Look down and the erectors get weaker. You know why: the neck tonic reflexes affect the tonus of the back extensors.

### 2. AN INCREASED RISK OF BACK INJURY

The world's premier spine biomechanist Stuart McGill, Ph.D. has explained in great detail why round back lifting is dangerous in his exceptional book *Ultimate Back Fitness and Performance*, 3d Ed. available from [backfitpro.com](http://backfitpro.com).

### 3. LOSS OF LEG STRENGTH THROUGH REDUCED STIFFNESS

According to studies of Olympic weightlifters by A. Vorobyev (1972), the strength at the start of the pull is 8.3% greater when the lower back is arched. The head coach of the Russian National Powerlifting Team Boris Sheyko explains that this arching increases the stiffness of the torso and provides a more complete transfer of the athlete's leg strength to the barbell (*Dr. McGill's book is a great resource for understanding the role of stiffness in strength*).

That said, I believe that an emphasis on the proper use of the diaphragm, the abdominal wall, and the lats enables one to produce at least as much stiffness as arching.

### 4. POSTURAL PROBLEMS AND UNBALANCED DEVELOPMENT

Round back deadlifts abuse the traps and the rhomboids with passive loading. Unless you do corrective exercises such as kettlebell high pulls, barbell shrugs and bent over rows, round back deads will give you an achy upper back and a slumped over posture. This makes round back deadlifts inappropriate for minimalist routines like *Power to the People!*

### 5. INAPPROPRIATE FOR 'ARM PULLERS'

You have no business pulling with your arms when you are deadlifting, yet some people can't help it. Sheyko stresses that the pose reflex you are familiar with makes the biceps stronger in the round back deadlift and tempts the arm puller even more. If you have a tendency to curl your deads you are better off arching your back, says the Russian leading coach.

## THE BOTTOM LINE FOR POWERLIFTERS

"Some say the round back is dangerous. I am convinced that more weight can be lifted in this manner," stated Bob Peoples.

Maybe, maybe not. Some of the greatest deadlifters in history have pulled with a round back: Bob Peoples, Vince Anello, and Konstantin Konstantinov, to name a few. And other greats have pulled with a flat back and the head up, Ed Coan and Maxim Podtinny come to mind.

Trial and error, Comrade. If you are sumo deadlifter, don't even bother. But if you pull conventional and have a strong back, it is worth a shot.

## THE BOTTOM LINE FOR EVERYONE ELSE

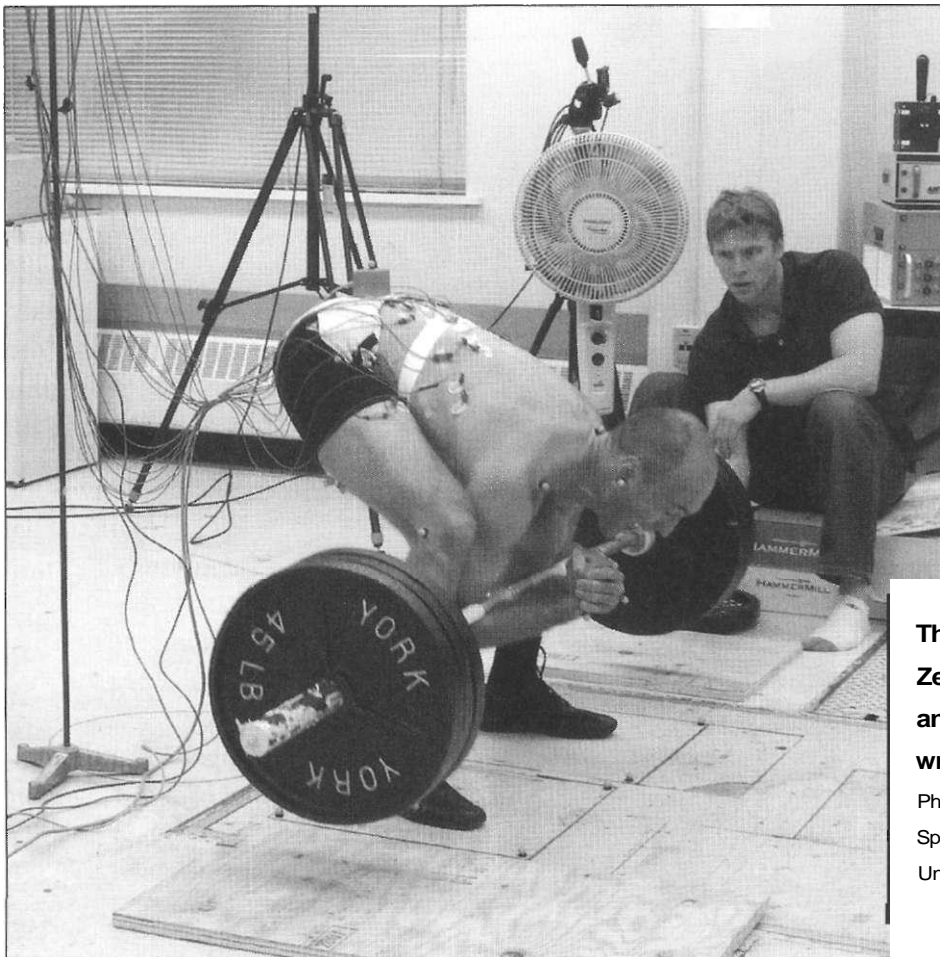
Forget about it. Round back deadlifts are more dangerous than flat back ones and work fewer muscles.

## THE WORLD'S PREMIER SPINE BIOMECHANIST COMMENTS

I have asked Prof. Stuart McGill's feedback on this piece and he has kindly obliged.

"Pavel, outstanding piece. First you make the point regarding the reason for PLing. If it is for training for something else, then don't take the risk with a rounded back. If it is for powerlifting performance, the rounder back creates higher lifts. Contrast to Olympic lifting where the neutral back has to be maintained under massive acceleration and hip velocities and the essential hip dominance. But PLers retire usually due to back injury and Olympic lifters due to bad knees and shoulders."

If you wrestle, grapple, or lift awkward loads for some other reason, still don't do round back deadlifts. Zerchers will serve your purposes better.



**The author is pulling a Zercher deadlift, a powerful and dangerous exercise for wrestlers.**

Photo courtesy Prof. Stuart McGill's Spine Biomechanics Lab at the University of Waterloo, Canada

## IF YOU CHOOSE TO GO ROUND

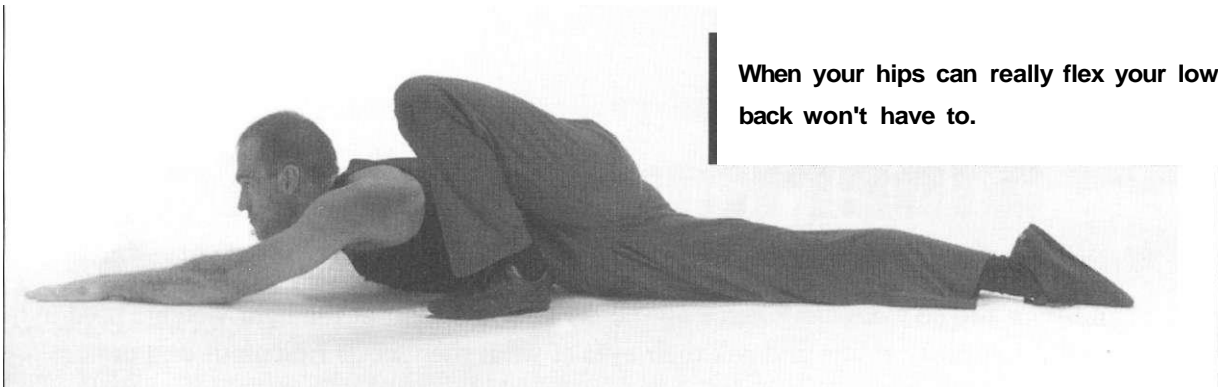
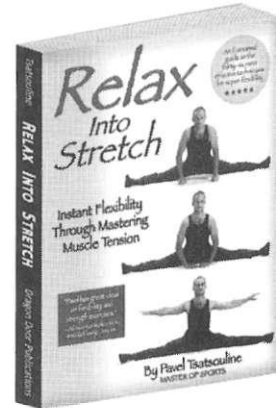
If you look carefully at Konstantinov's deadlifts, you will see that only his upper back is humped over; his lower back remains flat. It is the lower back that is very vulnerable to flexion; the upper back usually can handle it.

In my opinion the easiest way to learn how to keep your lower back flat, while allowing your mid and upper back to round, is by focusing on hip flexion as you are getting down to the bar. First sink your chest, flare your shoulder blades, and drop your shoulders. Then pull yourself down to the bar with your hip flexors and hamstrings.





Developing bent knee hip flexion flexibility—not straight legged hamstring drills—will go a long way towards bigger pulls and a healthier back. Work various deep squat stretches from *Beyond Stretching: the Seminar* DVD set and the following stretches from *Relax into Stretch* book: the East German hip and side stretch and the crawling lizard (pp. 106-108). When your hips can bend a lot your spine won't.



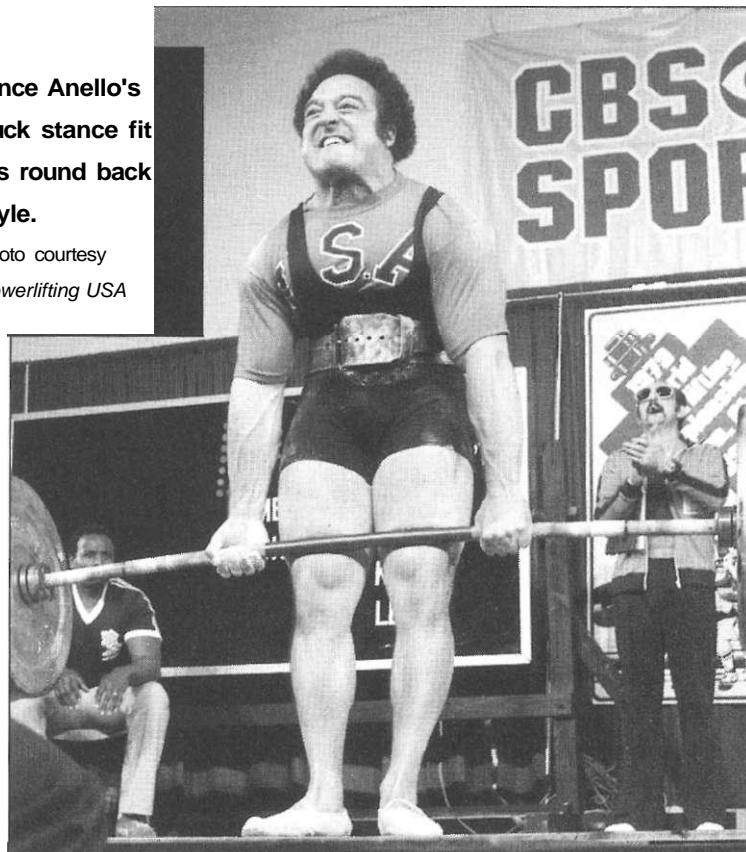
When your hips can really flex your lower back won't have to.

Don't hump the load with your back but make sure to use a strong leg drive. If you watch the videos of Konstantinov's world records you can't miss his exceptionally strong leg drive, and not just at the start of the pull but all the way through. In my opinion, most hitches happen when the powerlifter stops pushing his feet through the platform once the bar is half way up and starts pulling it. Fire those quads to break the dead weight off the platform and keep them firing until you get the down command.

Consider using the duck stance. Note how Vince Anello kept his heels together and turned his feet out until they practically formed

Vince Anello's duck stance fits his round back style.

Photo courtesy  
Powerlifting USA



half of a square. Note Konstantinov's great turnout as well. He employs a much wider stance than Anello, something you could try if your shoulders are as broad as the Russian's.

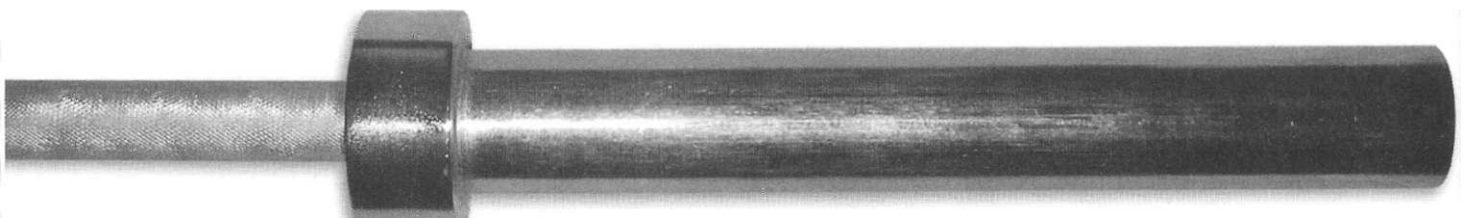
A good way to use your back in round back pulls is to visualize an extreme power squat with the bar half way down your back. Literally half way down, on the bottom of the rib cage. Push up against that imaginary low, low bar. This will fire your lower back while keeping your upper back relaxed and short.

The last word on the round back deadlift. It is a specialized technique that should only be used by the powerlifters whose leverages favor it and who are aware of the risks involved. If that is you—round back power to you!

## Siberian Westside

Russian lifters and coaches can't agree on the WSB. Some scoff at the light weights used in the practice of the competition lifts and roll their eyes at what they see as ridiculous and unnecessary complexity. Others shamelessly rip off Louie Simmons' ideas and pass them off as their own. I have seen the man's articles translated and published as original work by Russian 'authors'. Most simply show respect. Few follow the WSB template—it is nearly impossible to get a Russian to say no to heavy fives in squats, benches, and deads—but many incorporate Simmons' exercises into their regimens. "Personally I bow before the talents of this man, a great athlete and coach," acknowledges Boris Sheyko. "In my training plans I often use chains in the bench press and the deadlift. [As a result] Ravil Kazakov has increased his deadlift and Yuri Fedorenko his bench press."

Others go even further in incorporating Westside Barbell ideas into their training. "To improve the results in the competition lifts we employ a variety of training methods and techniques," says A. Kotov, Distinguished Coach of Russia. "Everyone understands that if an athlete performs only the basic exercises, he might hit a plateau and develop psychological fatigue as well. The coach's job is to approach the training process creatively, select and sometimes even invent new exercises aimed only at the increase of the results. Often I find ideas in Louie Simmons' articles, modify them through my own vision, experiment with my athletes, and almost always I get the results I have been looking for."



## WHAT MAKES ONE A "DISTINGUISHED COACH OF RUSSIA"?

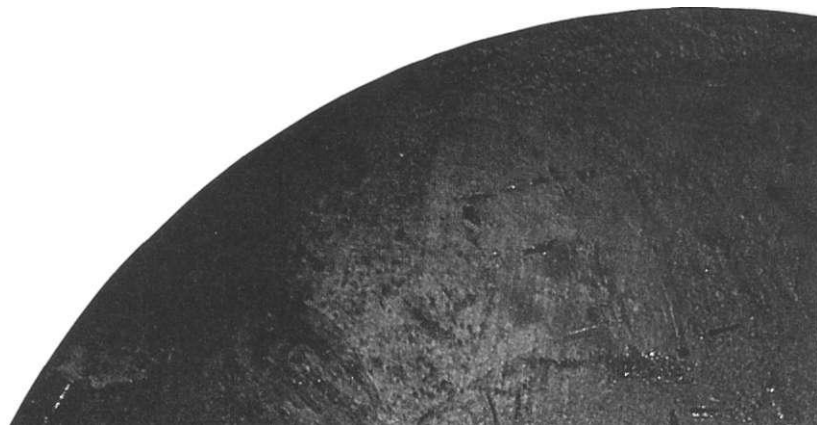
According to Boris Sheyko who owns that title himself there are at least 40 'distinguished coaches' in Russian powerlifting, the first being Sergey Ditlev in 1991. The only way to earn that title is to prepare a number of champions. For instance, at least two world champions. Or two European champions AND two European championship medalists. Or a few other equally impressive accomplishments. You get the idea. A Distinguished Coach is a coach of Marty Gallagher's caliber.

A. Kotov's plans have worked like a charm for A. Murashova, Master of Sports International Class who pulled 260kg at the bodyweight of 84kg! Another lady lifter, N. Shapovalova, MSIC set Russia's record, 180kg at 48kg, a 3.75 times bodyweight pull only 3kg below the All Time Historic World Record. The following WSB inspired deadlift program with a Siberian twist shows how they did it.

Kotov's athletes deadlift twice a week. One time in the competition style, another with a deadlift variation. The coach points out that some of these special deadlifts are so hard that they get the lifter more smoked than the classic pulls! One of these evil deads is the DL with springs.

The athlete stands on a high box and sets the bar on high pins in the power rack. There are two requirements to consider in choosing the box height and the pin level. First, the springs must get a double length stretch at the start. Second, the distance between the bar and the athlete's feet must be the same as it is in the competition pull from the platform. You will have to optimize the box height for your particular set of springs but be ready to look for a tall one. Kotov's box is 80cm, or a little over 30" high.

The springs are anchored to something on the floor, e.g. a stack of plates, and attached to the bar's collars on the top. Kotov's charges typically use from two to six springs per side. Thanks to a local high school physics lab, they have figured out that their particular springs taken from an exercise machine (finally, someone has found a good use for it!) add 6kg of loading for every 10cm of stretch. A typical load for Kotov's amazons is two springs per side, which adds up to 24kg (a nice kettlebell!) per side. Male lifters use up to six springs per side.





One week the athlete does her spring-loaded pulls with 60% on the bar and focuses on the accelerating strength. The next week she works up to her max with springs. Below is a sample week from the competition period.

#### MONDAY

1. Competition style SQ—50% x 5, 60% x 4, 70% x 3, 80% x 3/5
2. Competition style BP—50% x 5, 60% x 4, 70% x 3, 80% x 3/6
3. BP lockout with springs—3/5
4. Lateral raise—8/4
5. Good morning—5RM/5
6. Abs

#### WEDNESDAY

1. DL with springs—40% x 5, 50% x 4, 60% x 3/6-8
2. Pulldown behind the neck—8/4
3. Narrow grip BP—3/5
4. Supine triceps extension—8/4
5. Military press—5/5
6. Bent over raise—10/3
7. Back extension with a barbell—5/5

#### FRIDAY

1. Low box SQ—40% x 5, 50% x 3/6-8
2. BP with springs—40% x 5, 50% x 4, 60% x 3/5
3. Dips—4/6
4. SQ with springs from the sticking point—2/4
5. Good morning—8/4
6. Abs

#### SATURDAY

1. DL from high blocks (lockout)—90% x 3/3
2. DL from low blocks (a slightly less than full ROM deadlift)—85% x 2/2
3. Competition style DL—80% x 2/2
4. Incline BP—4/5
5. BP in the power rack from the sticking point—2/4
6. Back extension—8/4

East or West, many think Westside is best.

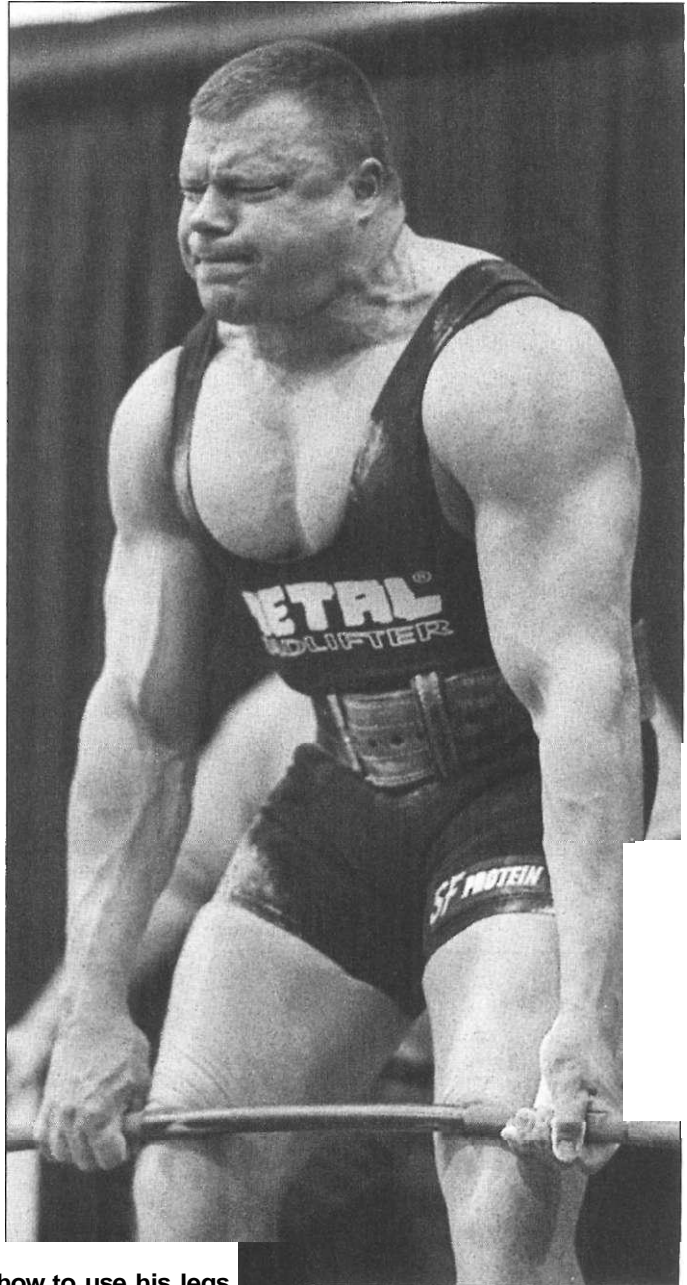
# Secrets of the Deadlift Leg Drive

There is more to the leg drive than pushing the floor away.

I never believed that pullers who had their knees far forward at the start, like Ano Turtiainen, pushed straight down into the platform. I experimented with that type of a technique and became convinced that the most effective leg drive involved pushing the feet forward, as if you are doing a machine leg extension. When I ran this idea by Vince Anello, he agreed that this was how he used his legs and told me that pushing the feet straight down into the platform never made any sense to him. Jay Schroeder, who has been influenced by the great Anello, has described this technique as keeping the weight on the whole foot but pushing off the balls of the feet.

Obviously, the feet are not going anywhere, so the knees will move back. This will make the bar clear the knees nicely. Once again, this technique applies only to the knees forward start. If you keep your shins close to vertical, it is a different ball game.

There are two ways to use this technique. One is to position the bar over the middle of the foot and pull straight up like Ano. This works for a lifter with balanced strengths. Rif has been teaching me this style but I am having a hard time because my glutes are not up to par with my back.

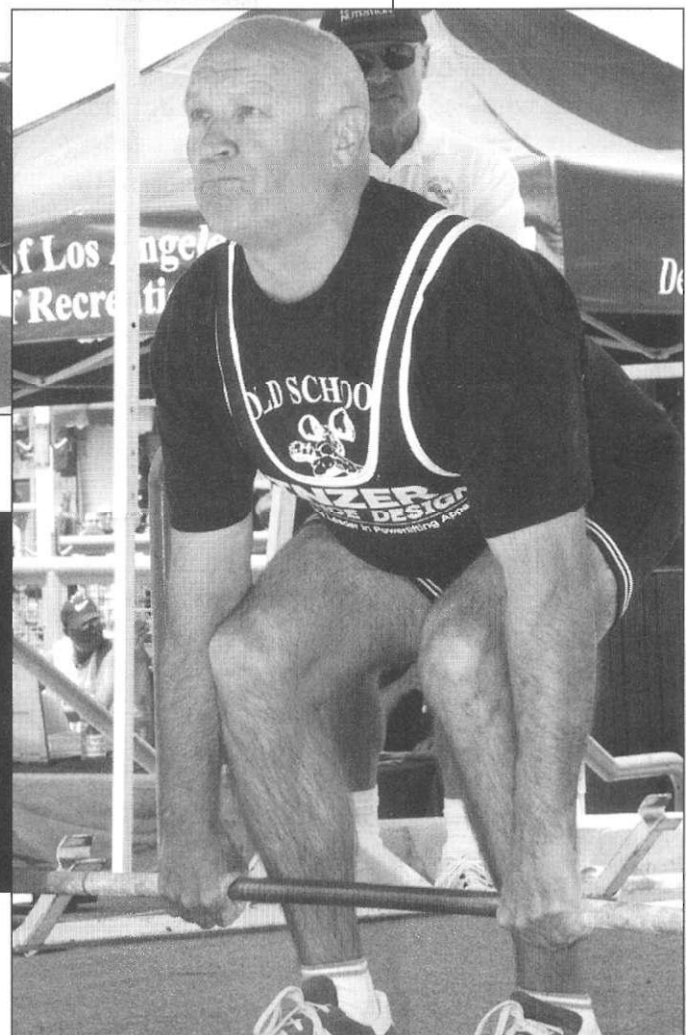
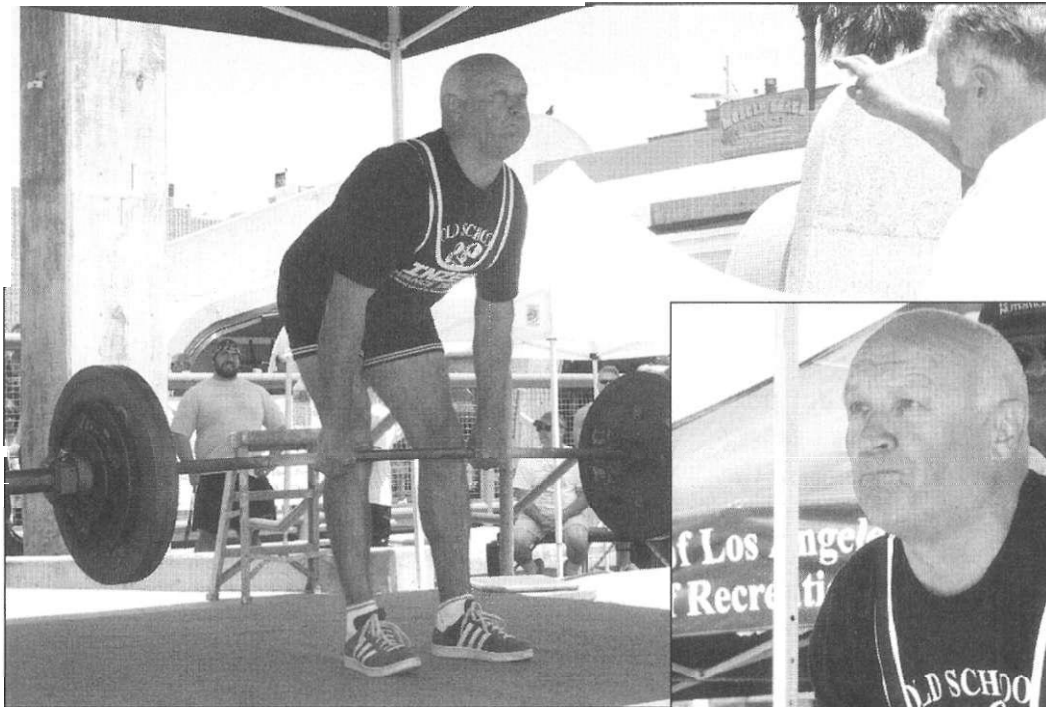


**Ano knows how to use his legs.**

Photo courtesy *Powerlifting USA*

The second is more suitable for a puller whose back and quads are stronger than his glutes. Start with the bar over the balls of your feet and direct the pull slightly towards you, to 11 o'clock rather than 12. You will have a strong quad start, then the weight projection will shift towards your heel and you will have your hams and back at your disposal to finish the lift. The angle of the torso relative to the platform does not change much until the bar reaches the knees and the knees straighten out early. If your back is really strong and your quads are not, consider looking down under the ref's feet.

Leg power to your deadlifts!



**My father Vladimir uses the second type of the leg drive. He got bitten by the powerlifting bug at the age of 70. A year later he pulled 374 @ 181 without a belt for a USPF American record, single lift DL, 70-74.**

Photo courtesy [Venicepaparazzi.com](http://Venicepaparazzi.com)

# The Smolov Deadlift: Another Iconic Power Plan

Unless you have been living under a rock, you must know that the Smolov squat program has acquired the same iconic, semi-mythical status in the powerlifting world as the 20 rep 'super squats' have among bodybuilders. The cycle has a many times proven track record of adding 100 pounds to an experienced drug free Pler's SQ in just thirteen weeks! But did you know that there is more where it came from? Enter the Smolov deadlift.

## THE PLAN

Unaccustomed to Russian volumes, most American PLers might, in the immortal words of Steve Baccari, 'fail the warm-up'. Here is a week-long regimen Sergey Smolov, Master of Sports prescribes to ease back into deadlifting after an injury or layoff:

## INTRODUCTORY DL MICROCYCLE

Monday	Tuesday	Wednesday	Thursday-Saturday	Sunday
DL off a box -50-55% x 15/3 (reps/sets)	DL off a box -60-65% x 8/5	DL off a box -70-75% x 5/6	Back hyps in the beginning of each workout.	Rest
Do box DLs in the end of your workouts and wrap up by stretching the posterior chain.				

Don't hesitate to moderate the program to fit your work capacity and recovery ability. Ditto for the rest of the cycles of this program. Ironically, the plan, unlike the same author's squat cycle, is not a specialization shock program. "Those whose [deadlift] is lacking could be advised a more accented training plan," deadpans Smolov. After all, the template calls for 'only' three back workouts a week, and why would 95% for two doubles followed by two sets of five with 85% should be a big deal? In fact, a good Communist ought to back them off with good mornings for six sets of six in order not to be suspected of sissy imperialist influences! Whatever work ethic Russian men have, they have saved it for sports.

The preparatory four-week DL cycle was designed by Feduleyev and popularized by Smolov. I. M. Feduleyev is a weightlifting coach from Moscow's School of the Elite Sport Mastery, He developed an extraordinary successful WL special strength preparation program and later modified it

for PL. The program employs the conjugate method beloved by the Westsiders, where eight different exercises are rotated to address different aspects of strength. "A variety of deadlifts and good mornings, in our opinion, happens to be an effective method of developing the strength of the trunk extensors in the preparatory period," explains Smolov. "Alternation of large, small, and medium loads also positively affects the growth of the deadlift results."

## PREPARATORY DL CYCLE

Week	Workout #1	Workout #2	Workout #3
1	1. Back hyper -5/5	1. Pyramid DL -40% x 5/2, 50-60% x 6/6 2. Good morning followed by a jump –bodyweight only x 4/5	1. DL standing on a 4-10cm box -60% x 4, 70% x 4, 80% x 4/5 2. DL from blocks, the bar at the knee level -70% x 4, 80% x 4, 85-90% x 4/5
2	1. Speed DL -60% x 3, 70% x 3, 80% x 6/3 2. GM -6/6	1. Pyramid DL -50% x 6/2, 60% x 6/7 2. Jump GM – bodyweight only x 4/5	1. DL -60% x 4, 70% x 4, 80-85% x 4/6 2. DL from blocks -70% x 3, 80% x 3, 90% x 3/5
3	1. Pyramid DL -50%x 6/2, 60% x 6/7	1. Back hyper -5/6 2. Jump GM –bodyweight only x 5/6	1. DL -70% x 3, 80% x 3/2, 85% x 2, 90-95% x 2/2, 85% x 5/2 2. GM -6/6
4	1. DL standing on a box - 70-75% x 4/4, 80-85% x 4/5 2. DL from blocks -70% x 3, 80% x 3, 90-95% x 3/6	1. DL -70% x 3, 80% x 3, 85% x 3, 90% x 3/5	1. Pyramid DL -50-55% x 6/2, 60-65% x 6/7 2. Back hyper -6/6
All exercises are done with an arched back. All percentages are based on the competition DL max. In the good mornings and back hypes the last 2-3 reps must be hard.			

If you easily manage the given percentages, Smolov gives you his permission to up the weights by 5-10% without changing the sets and the reps. Somehow I doubt that you are going to have this problem. Still, compared to Smolov's squat plan, his deadlift cycle is a walk in the park.

As in his squat regimen, Smolov graciously allows you to unload between the preparatory and the competition cycles with a 1-2 week 'switching cycle'. "The motto of the switching program is speed, and speed again," highlights S. Smolov. The coach does not specify the exercises but it is a fair guess that all of the drills recommended in his squat switching period, with the exception of the negative squats, should do the job: all sorts of jumps, jump squats with a light barbell, 'dead' squats from the pins, explosive leg presses. In addition I would consider kettlebell swings and throws, barbell cleans and snatches with no knee dip whatsoever, box jumps, bodyweight good mornings with a jump, barbell good mornings finished with an explosive rise on the toes, sumo pulls from the sticking point off blocks or from power rack pins "with the accent on speed and power".

Too bad the joys of switching are short lived, it's time to peak. "The main principle of structuring the deadlift training in the competition period is the same as in the squat," says Smolov. Go back to the beginning of the book to refresh your memory.

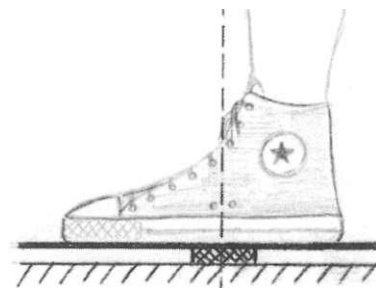
"First and foremost the intensity of loading must be noticeably increased," instructs Smolov. "The intensity is raised at the expense of reducing the share of various good mornings and back extensions and increasing the weights in deadlift exercises." The Russian recommends the following number of high volume/high intensity DL sessions in each of the four weeks of the peaking cycle: 2-3-2-2.

Smolov warns that the last heavy, 'shock' deadlift workout must be planned no later than 10 days before the meet. He adds that you will still squat heavy afterwards and that the SQ, BP, and DL cycles may run independently of each other rather than in sync.

Once you are done with your last heavy DL day, keep pulling light for technique and maintenance. Smolov reminds that peaking and tapering is an art. "Each athlete must have his own, most suitable for him and practically tested competition lead-up scheme."

## THE TECHNIQUE

Sergey Smolov has had a lasting influence on the Russian championship deadlift technique. Here is his basic premise:



"At any given moment the projection of the common center of mass must be made through the point of stable equilibrium, otherwise, the [righting] reflexes cause additional muscle tensions aimed at regaining a stable position. They, of course, are completely unnecessary from the point of view of rational athletic technique." (See the sidebar to learn why this statement does not apply to the American DL technique.)

Thus Smolov's goal is a perfect balance from front to back. He achieves it by keeping the weight over the natural balance point of the foot, by aligning the bar and the body's center of mass exactly over that spot, and by lifting straight up.

According to Gurfinkel and Kots (1965), one's center of mass is projected over the ground exactly halfway between the heel bone and the first knuckle of the big toe. In other words, the middle of the foot, if you chopped off the big toe while leaving its first metatarsal alone. That puts the bar projection roughly between the third and the fourth—if you count from the top—shoelace holes on your Chucks, slightly in front of the middle of an 'uncut' foot.

To get your own center of mass over that sweet spot Smolov directs to bring your shoulders slightly in front of the bar as an Olympic lifter. Because getting the shoulders over or behind the bar would push your big butt and thus your center of mass back.

The Russian specialist assures that if you have managed to observe the above rules during the lift-off, the rest of the pull will not demand any "extra and unnecessary efforts". If the bar has suddenly gained weight, it means that you have subconsciously shifted weight forward or back from the sweet spot, believes Smolov. He is convinced that detecting such minute shifts is nearly impossible and recommends a training gizmo that will help you learn to stay the course.

Lay down two wooden boards 1cm (a little less than 0.5") thick and 5cm (2") wide. Arrange them exactly where you will be standing and pulling with the middle of each board running through the center of your foot. Lay metal plates on top of the boards. Stand on these evil contraptions and pull some light deads.

It goes without saying that you might get hurt if you lose balance. Which is why the inventor demands that the boards be no thicker than 1cm. While the boards' thickness is not going to change, as you get more skilled, you should progress to narrower boards, eventually a bare 2cm, a little more than  $\frac{3}{4}$  of an inch. Smolov is adamant that "he who performs the exercise standing on a 20mm wide board... is guaranteed success as he has mastered the most rational deadlift technique... This uncomplicated experiment, I am certain, will make many people think hard and understand that not only strength that decides everything, but also the most rational, optimal method of its application, in other words, good athletic technique."

Sergey Smolov advocates doing the same in the squat. I want to point out that the middle of Smolov's toeless foot is the same spot as Ed Coan's weight placement in the squat, three quarters towards the heel.

You will find it is shocking that Smolov teaches beginners the straight up groove in a Smith machine! He cautions skilled pullers not to lose this groove: "It should be noted that lifting the barbell vertically is effective only with significant loads exceeding the athlete's bodyweight by more than two times. For experienced athletes... lighter weights are not deadlifts but fooling around that deforms the technique, as light barbells are more efficiently lifted in an S-trajectory."

## **THEN WHY DO AMERICANS PULL FROM THEIR HEELS, TOWARDS THE BODY, AND KEEP THE SHOULDERS OVER THE BAR?**

The American style of pulling unloads the balls of the feet and relieves the pressure on the pacinian corpuscles, or pressure sensors, in that area, which is necessary to get the quads going. However, while losing in the knee extensor drive and equilibrium, Americans gain something else when they dig their heels in and pull the bar into the body.

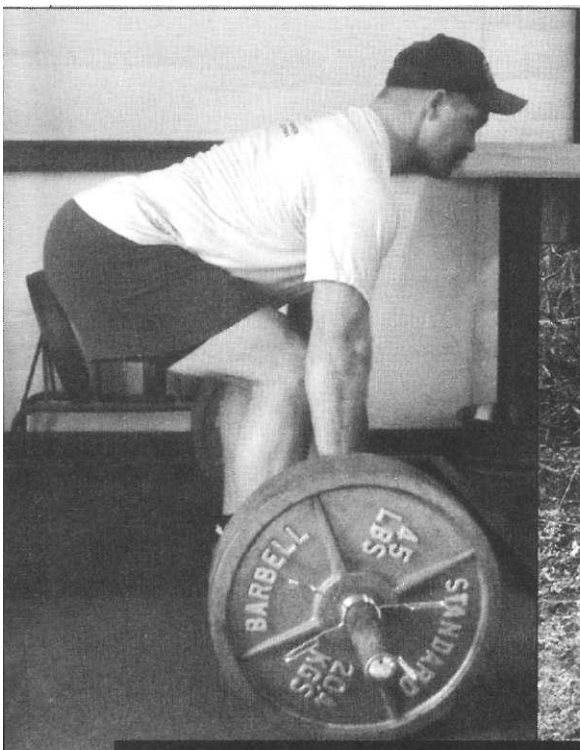
First, the weight of the body 'falling' back helps to elevate the bar. And second, while the righting reflexes that fire the muscles needed to regain balance harm the Russian, they help the American. As you are 'falling' back, your hip extensors will try to 'catch' you and will aid in your manly effort.

Which way is better? Whichever one works best for you. For beginners I prefer the American way because it makes it harder to mess up one's back.

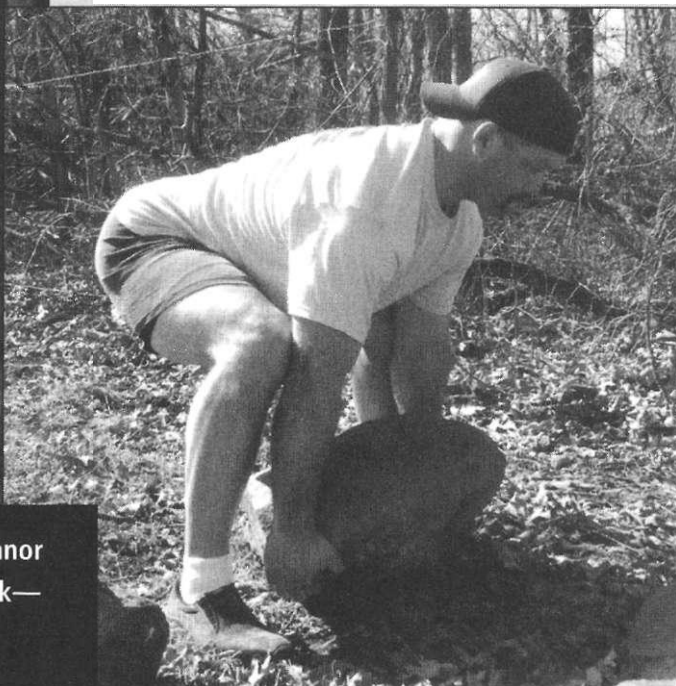
My colleagues have offered interesting insights on the subject.

From Master RKC Mark Reifkind, former Coach Women's IPF Team USA:

"I think the difference between the Russian and the American style has to do with what we spoke about many moons ago: the two different extensor mechanisms." Rif clarifies that an American puller lifts with his entire posterior chain while a Russian emphasizes his quads and back like a weightlifter.



"I found, quite by accident, squatting on stability balls, this exact position Smolov is talking about. It totally changed my groove in my deadlift AND my squat. It fixed NUMEROUS problems I had had for years trying to



**Strongman champion Jeff O'Connor lifts a bar the way he lifts a rock—straight up.**

Photos courtesy Jeff O'Connor, Senior RKC



**find that power point... It certainly did shorten my stroke in the pull and the squat... Of course I had to use [a weightlifting shoe with] a heel... to get this position right in the squat."**

**From Senior R K C Jeff O'Connor, former North American Strongman Champion in the 275-pound class:**

**"From a powerlifting standpoint, I like the American style. Because, when it all grooves right, the bar flies. From a beginner's standpoint, I like it for the same reason you stated, back safety.**

**"However, I have found that in most situations off of the platform, the Russian style is more applicable. The vast majority of things that I have picked up from the ground were from a semi-sumo stance, and I've always tried to find a "balance". This means that my shoulders are over the weight, arms are straight, and it's a straight line pull. It's just more natural.**

**"Most of the people that I personally train are young athletes. I feel that the Russian style is more appropriate for them. (Actually, I start them with a semi-sumo DL with a kettlebell as young as 6 or 7.) The whole foot 'balance' seems more appropriate for athletics, and I'm more concerned with how they perform on the field than on the platform. The straight line pull just makes more sense to me for running, jumping, and changing directions."**

**Smolov's prestart cues are pure gold:**

**"When the athlete is setting up his feet on the platform he must 'get a feel' for all the muscles participating in the work and mentally connect them into an uninterrupted chain—from the feet to the hands."**

**It is worth noting that in his DL technique analysis Smolov chooses to disregard the tissue deformation. Being tight and linked goes without saying, so why waste breath about it?**

**The Russian supercoach continues: "[Visualize] as if a sort of springy rod runs through the inside of his whole body, a rod which, straightening out, will help the athlete to straighten out and lift the barbell. One must also concentrate his thought on the fact that the athlete is not lifting the barbell but... himself and the barbell only by the virtue of it being tied to the hands. This thought, this feeling ought not leave the athlete starting from the moment of the dynamic start and until the fixation of the barbell at the lockout."**

## SMOLOV SUMO DL TECHNIQUE SUMMARY

Place your feet as wide as the elbows of spread out arras.

Keep your head up. Look forward and up.

Position your shoulders over the bar. Use your lats to maintain this position.

Bring your hip joints close to the bar—without dropping into a squat or losing the arch—and push your knees out.

Keep the bar and your center of mass over the spot halfway between the heel bone and the first knuckle of the big toe.

Lift straight up.

Focus on straightening out your body as opposed to pulling on the bar.

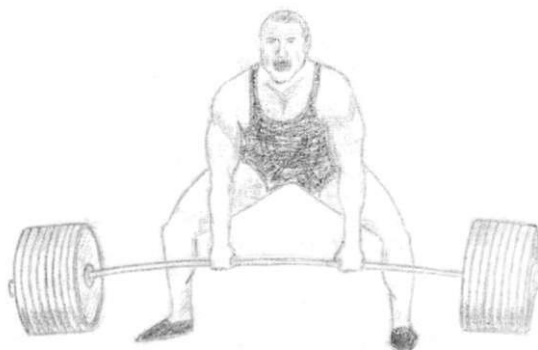
During the setup mentally connect all your muscles into a chain from your feet to your hands.

Visualize a springy rod inside your body straightening out.

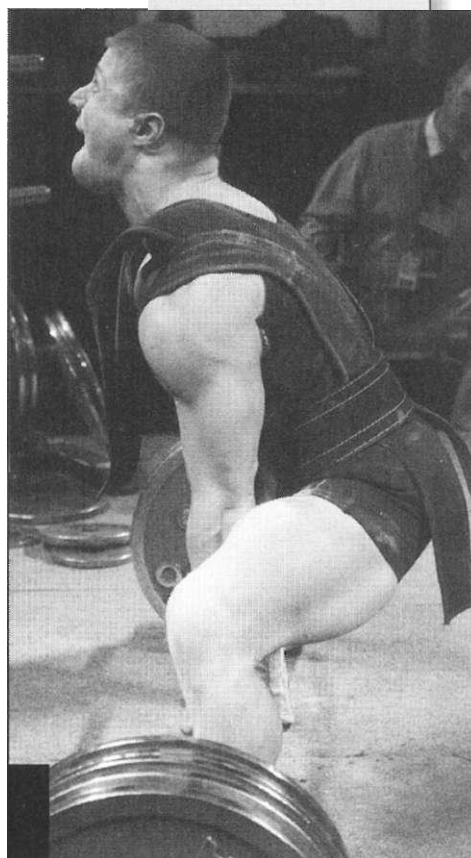
"You should not try to deadlift the barbell fast—not that it is possible with maximal weights—but you should try to lift the barbell powerfully-steady, applying a maximal effort along the whole lift."

Today three All Time Historic World Deadlift Records belong to ex-Soviet sumo pullers: Oleksandr Kutcher's 4.8 times bodyweight 793 at 165, Yury Fedorenko's 892 at 242, and Maxim Podtinny's 909 at 308. Their lineage goes back to Sergey Smolov. Give the man's ideas a try, what do you have you to lose except your weakness?

**Oleksandr Kutcher is one of many ex-Soviet great deadlifters of Smolov's lineage.** Photo courtesy *Powerlifting USA*



**World record holder Maxim Podtinny comes from the proud Smolov lineage.**



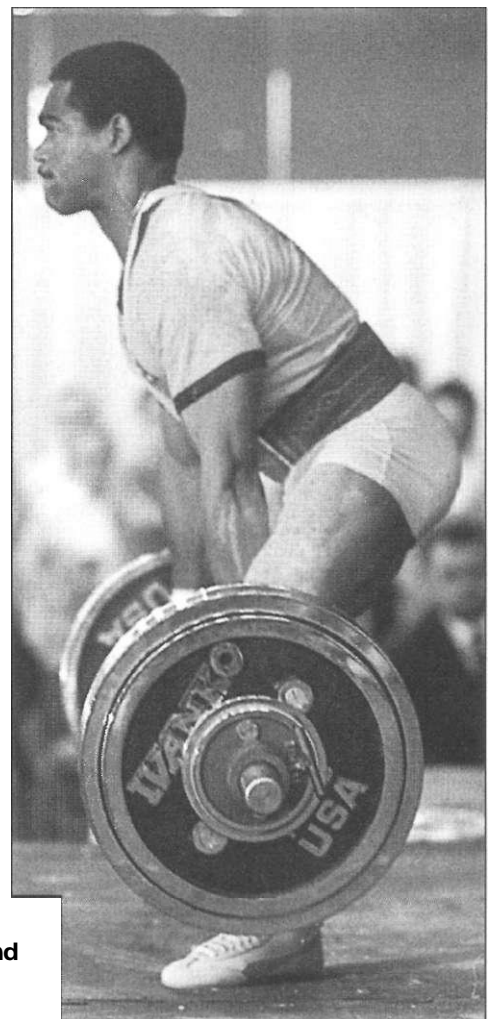
# 'He Who Does Not Have a Good Deadlift Does Not Get to Drink Champagne!'

Russia is a vodka nation through and through. Yet it is champagne that has been associated with success ever since the times of debauching *hussars* or Tsar's cavalrymen. "He who takes no risks does not get to drink champagne!" as the Russian saying goes.

Askold Surovetsky, Distinguished Coach of Russia has paraphrased this famous saying: "He who does not have a good deadlift does not get to drink champagne!" You must agree, or you would not be reading this publication. Read on and you will be on your way to a case of Dom Perignon.

Like most Russian *siloviks* or strength athletes, Comrade Surovetsky respects the classic American system. "If you look at the deadlift plans of well known strength athletes such as Dan Austin, Ed Coan, and John Kuc or the 'Finnish system', you will see that they are all built around a simple increase of the weight from workout to workout...

"You may use different systems of deadlift training. And they should be changed periodically. The important thing to observe is the principle of progressive overload." In other words, cycling. Surovetsky prefers 8-12 week cycles. Following is the cycle he prescribes the most. I made great gains with it some years ago and I know that you will too.



**Austin used short cycles and big jumps. His 704 @148 deadlift is still untouchable fifteen years Later.**

*Photo courtesy Powerlifting USA*

## THE SUROVETSKY DL CYCLE

Week	Monday	Saturday
<b>Rest between sets 5-10min</b>	<b>Volume, Touch and Go</b>	<b>Heavy, Dead Start</b>
1.	70x5/5	81x3, 85x2, 88.5x1/3 (reps/sets)
2.	72.5x5/5	81x3, 85x2, 88.5x2/3
3.	75x5/5	82.5x3, 87.5x2, 94x1/3
4.	77.5x4/4	82.5x3, 87.5x2, 94x2/3
5.	80x4/4	84x3, 94x2, 100x1/3
6.	82.5x4/4	84x3, 94x2, 100x2/3
7.	85x3/3	85.5x3, 97.5x2, 105x1/3
8.	87.5x3/3	85.5x3, 97.5x2, 105x2/3
9.	90x2/2	<b>MAX</b>

The Russian coach alternates volume workouts and heavy workouts and insists that there is at least a 3-5 day break between them. Ideally, he says, rest for 5 days after the volume day and for 3 after the heavy day. Since this does not cooperate with the weekly cycle I have done my heavy workouts on Saturdays and volume ones on Mondays and suggest that you do the same.

A unique wrinkle in Surovetsky's plan is employing dead stop pulls on heavy days

and touch and go reps on volume days. Dead starts are a must for success because starting strength is crucial to what old timers called the 'dead weight lift'. As for the touch and go reps, the Russian uses them for finessing the groove. They also build muscle.

Surovetsky stresses that you must descend by retracing your lift, in other words bend both your hips and knees, don't go stiff legged. 'Touch and go' does not mean bounce the bar off the platform; just brush it, so gently that the plates do not rattle. And stay tight on those negatives! Beware that touch and go DLs could be dangerous as they have a tendency to pull one forward. Fortunately, Askold Surovetsky prescribes very modest percentages on the volume days, so it should not be a problem if your technique is dialed in. Modest is good, enough to groove the lift and to build some muscle, the benefits of a controlled eccentric.

## IF YOU ARE A CONVENTIONAL PULLER

Like many ex-Soviets, Surovetsky has gone sumo and designed his cycle for that style. I have used it successfully with conventional pulls though and so can you.

Do conventional pulls on the heavy, dead start day. On the rep day you could go either way. If you stay conventional you will have to emphasize the leg drive.

Conventional touch and go pulls easily deteriorate into butt up semi-stiff legs. Don't let it happen.

Or you could lower the weights and go sumo on your light days. When you touch and go, sumos are safer. Besides, strong glutes have not hurt any deadlifter.

Note the progression pattern. On the volume day the Russian starts with the traditional 5x5 and then cuts the reps and volume to 4x4, 3x3, and finally 2x2. The volume goes down, the intensity goes up, a classic pattern of power. One unusual detail worth noting is very conservative percentages. For instance, 5x5 tops off with 75% where most cycles will go up to 80% and the Russian Squat Routine kills with 85%. There is a reason behind this lightness. In the RSR the 5x5 is the heavy day, that's when strength is built. In the Surovetsky cycle 5x5 is the light day. Strength is built with heavy singles and doubles on Saturday; on Monday you are just honing the groove and building or at least maintaining your muscle mass.

On the heavy day the Russian employs a double progression. Three singles with a given weight. Then three doubles. Then up the weight. Rinse and repeat. This approach not only builds strength, it builds confidence.

For a 500-pound puller the cycle would look like this:

## SAMPLE CYCLE BASED ON 500X1RM, LBS.

Week	Monday	Saturday
	Volume, Touch and Go	Heavy, Dead Start
1.	350x5/5	405x3, 425x2, 445x1/3
2.	365x5/5	405x3, 425x2, 445x2/3
3.	375x5/5	415x3, 440x2, 470x1/3
4.	390x4/4	415x3, 440x2, 470x2/3
5.	400x4/4	420x3, 470x2, 500x1/3
6.	415x4/4	420x3, 470x2, 500x2/3
7.	425x3/3	430x3, 490x2, 525x1/3
8.	440x3/3	430x3, 490x2, 525x2/3
9.	450x2/2	<b>MAX</b>

Doing three doubles with 105% of your old max is way too ambitious for anyone but a beginner. Which is why many elite American powerlifters do not care for percentages. Dr. Judd Biasiotto has spoken for all of them: a percentage-based routine is "like trying to compare oranges to apples, or Bev Francis with Cindy Lauper. You just can't 'do dat'! Here's why—a ten percent jump for a lifter who is squatting 500 pounds is a lot different than a ten percent jump for a lifter

who is squatting 250 pounds. The obvious error with the percentage program is that the lifter who is lifting the most weight is expected to improve the most."

A valid point. To make a percentage-based cycle work reel in your ambition and recalculate the plan with more realistic percentages based on 'the rate of return' you have experienced in the recent past. Here is how.

The last heavy workout is  $105\% \times 2/3$ . Make a levelheaded estimate how much weight should you be able to do 3x2 with after a solid cycle. Probably something in the neighborhood of 95-100%, even less for world class lifters.

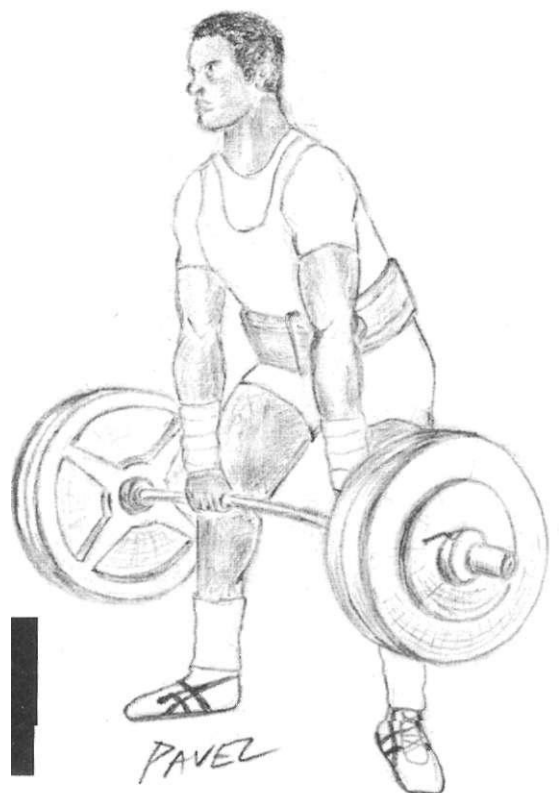
Plug this poundage into your last heavy workout. Consider it '105%' and compute all the workouts accordingly. For example, our 500-pound puller ambitiously decides that he will be able to do three doubles with his old max,  $500 \times 2/3$  at the end of this powerful Russian cycle. 500 then becomes '105%'. Work out the new '100%' by dividing this poundage by 105 and multiplying by 100.

$$500:105 \times 100 = 476$$

Round that number off to 475 and crunch the numbers for the whole cycle based on this 'max'. E.g., 70% will be 335. Your real 70% is 350 but for the purposes of the cycle it is 335. This is what you will end up with:

## SAMPLE CYCLE BASED ON 475 X 1 RM, LBS.

Week	Monday	Saturday
Rest between sets 5-10min	Volume, Touch and Go	Heavy, Dead Start
1.	335x5/5	385x3, 405x2, 420x1/3
2.	345x5/5	385x3, 405x2, 420x2/3
3.	355x5/5	390x3, 415x2, 445x1/3
4.	370x4/4	390x3, 415x2, 445x2/3
5.	380x4/4	400x3, 445x2, 475x1/3
6.	390x4/4	400x3, 445x2, 475x2/3
7.	405x3/3	405x3, 465x2, 500x1/3
8.	415x3/3	405x3, 465x2, 500x2/3
9.	430x2/2	MAX



Dan Austin, a champion the Russians respect.

## How TO ADJUST AN OVERLY AMBITIOUS CYCLE

- Make a conservative estimate of the weight you will be lifting for 3x2 in the end of the cycle.
- Consider that weight '105%' of your "current max".
- Estimate the 'current max' by dividing the '105%' amount by 105 and multiplying it by 100:

### PROJECTED 2/3 POUNDAGE :

105 X 100 = 100% USED IN CALCULATIONS

- Recalculate all the poundages based on the last number.

The same procedure may be used to adjust any overly ambitious percentage based plan downward. All you need to do is bring the heaviest workout of the cycle down to reality and recompute the percentages based on the new number. For instance, you are taking on the Russian Squat Routine that calls for 100% x 2/2 in the end. Your max squat is 500 and, being a low rep guy, you estimate that 455 x 2/2 is grand enough for you. 455 thus becomes the new '100%'.

To use another example, say, your cycle is supposed to end with 97% x 3. You are the same 500-pound squatter and you know that 485x3 is not in the cards this time around. 465x3 seems reasonable though. 465 then corresponds to 97%.  $465 : 97 \times 100 = 479$ . Use this number (or 480 to keep it simple) to calculate all the percentages.

Since the extra wide sumo stance demands great mobility and flexibility, the Russian coach recommends that you include Cossack stretches (see *Super Joints*) in your warm-up after bodyweight squats and back extensions. Then ramp up from 6 to 3 reps starting with a light weight around 30% of your 1RM. Converted into pounds and rounded up away from Barbie plates, Surovetsky's ramp for a 440-pound puller's volume day will look like this: 135x6, 185x5, 245x4, 295x3. And for the heavy day: 135x6, 205x5, 275x4, 335x3. Rest for 1-3 min between warm-up sets.

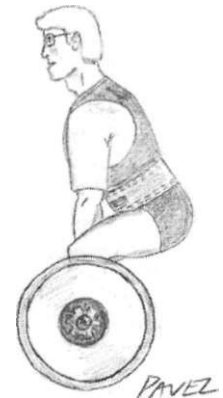
On to the assistance.

**Gray hair does not stop PL coach Surovetsky from practicing what he preaches.**



If the DL start is your weakness, pull standing on a 4" platform using the same sumo stance. Do 5-6/4-5 (reps/sets) increasing the weight from set to set. If you need these, do them on your heavy day, after your competition style pulls.

If are having a hard time locking out and your mid back folds over, do partial pulls—again, sumo—from slightly below your knees. Russians put wooden blocks under the plates instead of pulling in a power rack. The pull feels more natural, it is easier on the bar, and your body does not get jarred when you set the weight down. But rack pulls will do in a pinch. 1-3/3-5 with 10-30kg (25-65 pounds) over your max. After heavy deads.



Naturally, if you are a conventional puller, extended and partial pulls should be done in the conventional stance.

Surovetsky chooses to avoid direct grip work. Just stay away from straps in all your pulls, including the lockouts, and your grip will get strong and stay strong, says he.

The Russian PL coach also recommends upper back assistance for 8-10/3-4: lat pulldowns, narrow grip low pulley rows to the stomach, pullups, bent over rows. He cautions to limit all assistance drills to no more than three per workout.

## THE RUSSIAN SUMO DEADLIFT TECHNIQUE

Set your feet as wide as possible, almost touching the plates, and under the bar. Turn them out 45 to 60 degrees. Be aware that a great turnout makes the back to front balance precarious at the lockout and demands a more precise technique.

Slightly tilt your head down to see the bar. Pull yourself down to the bar keeping your back straight—not to be confused with 'vertical'—and pushing your knees out. Push your pelvis towards the bar without losing the arch.

Reach down with your arms, make them 'long'. Rotate your shoulders forward and down to reduce the pulling distance but don't round your back.

Avoid the two extremes—stiff legging and squatting too low.

"During the descent the leg muscles should be stretched like a bow and prepare for the return movement," comments Askold Surovetsky.

There is a saying in powerlifting: the harder it is to get down, the easier it is to get up. Surovetsky stresses a very focused descent to the bar: "...a easy, unfocused descent to the bar leads to serious negative consequences. First, you will have a harder time assuming the correct



starting position and prepare all the muscles for the beginning of the movement. Second, you will end up lowering the pelvis more, which will increase the distance of the lift. The preparation phase is a very important part of the movement which is often ignored in training."

"The starting position: the knees are maximally turned out and facing the toes. The pelvis is brought close to the bar. The back is straight and tensed. The shoulders are dropped and are straight over the bar. Keep your head straight... The fingers must not grip the barbell; you should form sort of hooks with them. The arms act only as connecting links..."

If you are not flexible to assume this starting position without pain you need my *Strength Stretching* DVD. Note that if you fail to spread the knees far enough you will compromise your leverage at the start.

Ready to lift off. Take a big breath and perform an *obtyazhka*. Russian powerlifters have borrowed this great term from their fellow countrymen weightlifters. The *obtyazhka*, roughly translated as the 'tension stretch', means the body is stretched under high tension, like a bow, ready to explode. When Dan John tells a young weightlifter to stretch his chin and tail as far apart as possible at the starting position of the pull, it is an *obtyazhka*. When a powerlifter forces his chest to meet the bar in the bench press while keeping his pecs tight, it is an *obtyazhka*. When an arm wrestler braces before the "Go!" command, hunching over and flaring his shoulder blades to stretch load the lats, it is an *obtyazhka*. So gradually stretch tension all over your body, perform an *obtyazhka*.

Break the bar off the platform focusing on the pressure on your feet. Surovetsky stresses that your upper back and shoulders should be late to the party, use your legs first. Only when you have squeezed the bar off the platform with your legs may the upper back kick in to assist. It takes a lot of patience to maintain the proper starting position for the sumo pull. "Under no circumstances make sudden movements!" demands the coach. "This is not the snatch, this is"—he pauses for effect—"the deadlift. Everybody knows that the numbers are a lot lower in the snatch than in the deadlift."

Keep your head straight or slightly up, the bar close to your legs, and drive. Hold your breath and keep your trunk stiff. Don't allow your hips to shoot up before your shoulders! Have patience. At least for the first half of the pull. In Surovetsky's sumo the legs completely straighten out and then the glutes and upper body finish the lift. Push your pelvis forward and your chest out with a forceful—but never complete—exhalation. Keep your shoulders down and don't bring them back until you are erect.

Down!

Three white lights. And a case of champagne.

# Don't Leak Your Deadlift Strength!

Several years ago I met two men who have greatly contributed to my understanding of strength. One was boxing coach Steve Baccari, the other spine biomechanist Prof. Stuart McGill. It was these two gentlemen who independently coined the term 'leakage' as it applies to your athletic strength. Once you have understood the concept, identified your personal leaks in the deadlift, and 'plugged' them up, I guarantee that you will see a remarkable jump in your pulling strength.

Prof. McGill explains the concept: "Concentric contraction increases energy while eccentric contraction absorbs energy. So if a concentric action at a strong joint forces a weaker joint into eccentric contraction then that is one form of leak. Consider hip extension if the heel is forced into the ground. A flat foot on the ground would remove the leak in that case. So eccentric contraction along the line of drive is a leak. Ballistic hip contraction and a soft core is a form of leak while a stiff core transmits the force without loss to the shoulders. ("You can't push a rope but you can push a stone.")"

In other words, if one muscle group is pushing hard and another is not doing its job, the latter will yield instead of assisting and suck up the former's strength like a black hole.

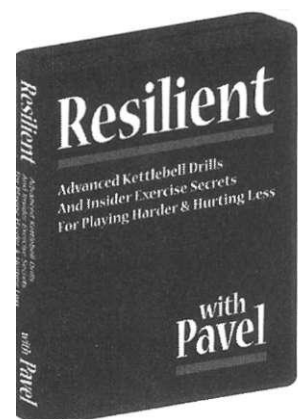
There are at least nine potential leakage points in the DL: the feet, ankles, knees, hips, lumbar spine, thoracic spine, shoulder blades, elbows, and wrists. Let us figure out what brings out these leakages and what type of 'plumbing' intervention they require.

But first, a point needs to be made. The following does not imply that you should not start your deads with your knees forward, hips high, the back rounded, etc. Just that these joints should not get more 'that way' once the pull is on its way. You may begin with whatever degree of flexion in all these joints that your technique demands. But after that there is only one way for them to go—into extension.

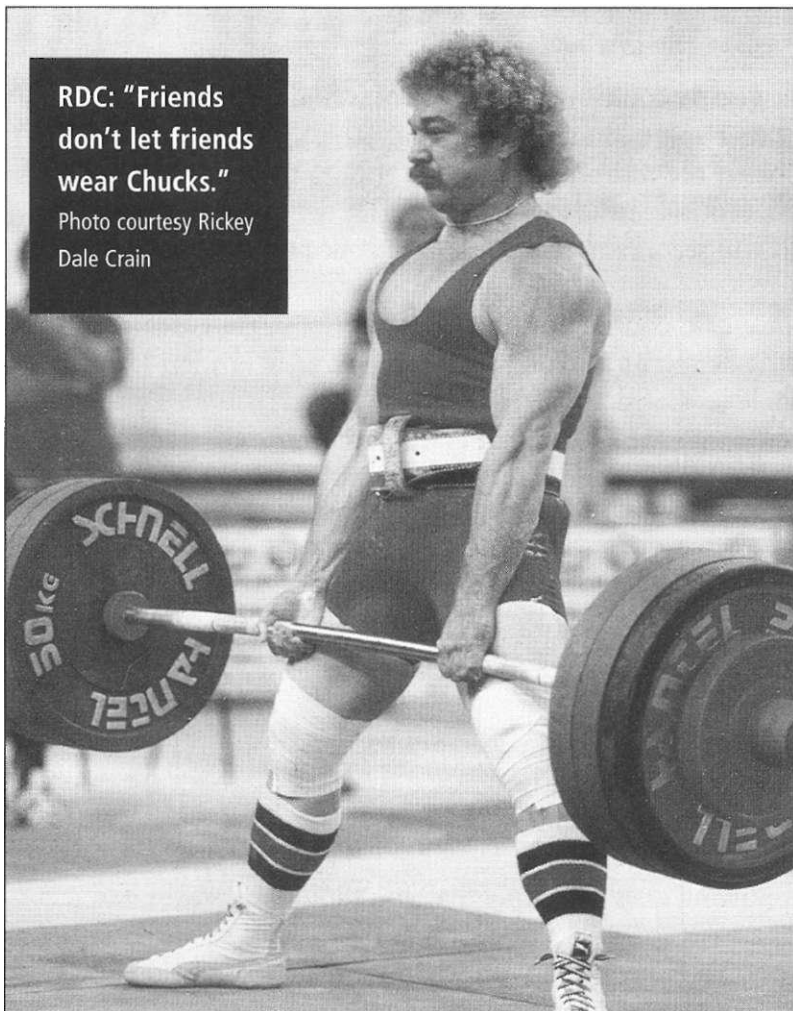
## FEET

The Chinese say that you start dying from your feet. So does your deadlift. When your paws get squished under a crushing load, you are giving away pounds to your competitor.

Get your feet healthy and strong. Do kettlebell Hack squats (see my *Resilient* DVD), skip rope, pick up little rocks with your toes, balance on one foot, etc. Practice the above barefoot. In Russia they even have a special device for strengthening the muscles in your arch. Gray Cook and Brett Jones' *The Secrets of the Foot and Ankle* ([www.DragonDoor.com](http://www.DragonDoor.com)) is a great place to start your feet on their way to strength and health.



Also, get tight shoes. There is a joke about a Russian who wore shoes two sizes too small. When asked about it, he would explain that his life was miserable. The only thing he had to look forward to in his day was coming home and taking off his tight shoes.



Rickey Dale Crain is as strong as any Russian so he digs tight shoes too. In his book *Xtreme Deadlifting* ([www.crain.ws](http://www.crain.ws)) he writes, "The shoe should fit very snug and wrap around the foot. Never wear a shoe too big. You don't want your foot moving or slipping inside the shoe... A good [tight] shoe will gradually conform to your foot and you will become used to the tightness (I actually wear it so tight, it is to the point of being uncomfortable), just as you would a power suit or power wraps. You can adjust the tightness a bit by putting on two pairs of socks if need be. Remember: tightness is the name of the game. The tighter you are and/or feel, the better you will lift... And remember, "Friends don't let friends wear Chuck Taylor's."

Since tight shoes are not healthy for your feet, save them for the meet and over 90% sets. Meanwhile, wear a looser pair of wrestling shoes or defy RDC and wear Chucks.

## ANKLES

The feet extend together with the knees to form the 'leg drive'. I got reminded of that fact when I tried doing some deadlift stance leg presses with a spasm in my calf. No go!

Your knees moving forward manifest ankle leakage. But it is not weak calves that usually bring out this type of leakage. Switching your attention from the leg drive to your back and hips to finish the lift does. Pure back pullers who don't use their legs are prone to this problem too. It usually happens when the bar is a couple of inches below the knees and you are not likely to recover the pull from that one.

The remedial measures for the ankle leakage are the same as for the knee leakage.

## KNEES

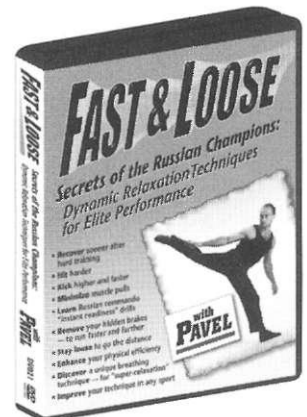
This leak shows up as a hitch. Again, you stopped pushing with your feet too soon. You must understand that even though the quads don't contribute much to the lift at this stage, their stiffness is required to stabilize or 'anchor' the efforts of the glutes to bring the lift home. At the RKC kettlebell instructor course we teach the 'static stomp deadlift' remedial drill to drill one to stay with the leg drive all the way to the top. It is best to do barefoot. Deadlift a light weight—we use a pair of kettlebells, you may pick up a straight bar with one to three wheels—and pause at the lockout. Breathe shallow and stay tight for the duration of the drill.

Pull up your kneecaps. Cramp your glutes. 'Zip up' your hamstrings and adductors. Tense your midsection. Keep your arms and shoulders relaxed.

Soviet weightlifting great Yuri Vlasov used to say that his feet 'burned' when he lifted. In martial arts there is a concept of 'rooting'. The harder you push the ground, the more strength you will have, thanks to the mechanoreceptors or pressure sensors on your feet and for some other reasons. So the next step is focusing your intention on pushing your feet, the entire surfaces of your feet, hard through the deck. Obviously, there will be no movement, but stick with the intention. You will notice that your tension will increase even more. Stay this way for a minute or so.

Shake off the tension, rest for a few minutes, then pull a moderately heavy deadlift. You will be pleasantly surprised that your pull is very strong and steady, without hitches, and you are using all your muscles from start to finish. Alternate static stomp iso deadlifts with regular pulls. Practice relaxation 'fast and loose' drills in between.

I spoke to strength coach Jay Schroeder who told me that he has his athletes practice the same drill. The only difference is, Schroeder has them hold the bar for a full 5min! Stay tight and push through the floor. And do it without straps. The poundage will vary greatly from person to person, 20 to 77% 1RM in Jay's experience. I have been using the drill for technique correction purposes only; according to Jay Schroeder it is worth doing a lot, as it will make you stronger too.



The bottom line on fighting the knee leakage is, keep pushing your feet through the platform all the way to the lockout.

Tight hip flexors are another cause for hitching. The glutes fail to extend the hips all the way, so in order to assume a somewhat upright posture the deadlifter rebends his knees and hyperextends his back. My *Strength Stretching* DVD will show you how to fix that problem.

## HIPS

Your butt shooting up at the beginning of the pull is a hip leakage. It happens when your quads and back are a lot stronger than your glutes. It also happens when you rush the lift. A poor 'wedge' might be a problem too. *Strength Stretching* deals with that as well.

## LUMBAR SPINE

If your lower back starts rounding as the bar leaves the ground, you are leaking strength. According to studies of Olympic weightlifters by Vorobyev (1972), the strength at the start of the pull is 8.3% greater by when the lower back is arched. The head coach of IPF Powerlifting Team Russia Boris Sheyko explains that this arching increases the stiffness of the torso and provides a more complete transfer of the athlete's leg strength to the barbell.

An obvious cause of this type of leakage is back or midsection weakness.

The second cause is the lack of skill of locking a neutral spine and bracing. A back puller may have a manly set of 'poles', as Russian powerlifters call the spinal erectors, yet use them dynamically rather than statically. Review Dr. Stuart McGill's *Ultimate Back Fitness and Performance* ([www.backfitpro.com](http://www.backfitpro.com)) for bracing tips. Snatch grip DLs are great for setting the arch. So are the following DL variations recommended by world champion S. Glyadya and Prof. M. Starov from the Ukraine. Setting the arch and the brace are only two of the many benefits these great drills offer.

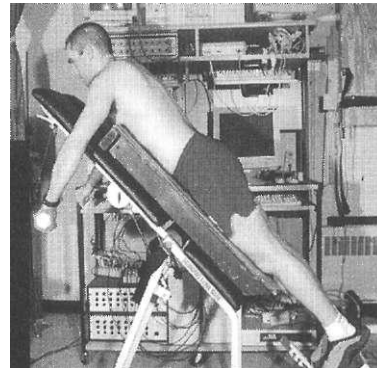
### 1) SLOW DL.

Vary the speed:

- a. 3sec up, 3sec down
- b. 5sec up, 5sec down
- c. 10sec up, 10sec down

**Dr. McGill's unique drill will beat upper back strength leakage.**

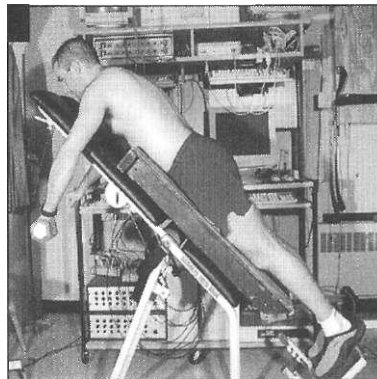
Courtesy Prof. Stuart McGill's  
Spine Biomechanics Lab,  
University of Waterloo, Canada



### 2) DL WITH STOPS.

The Ukrainians recommend 3-4 stops for 2-5sec at each of the following levels:

- a. 2-5cm (1-2") from platform
- b. Slightly below knees
- c. Slightly above knees
- d. At the lockout



You may pause only on the concentric, only on the eccentric, or on both halves of the lift. Never do more than three reps per set. The drill's benefits go beyond fixing the back leakage. "Not only will this exercise help you finesse your technique," promise the Ukrainian specialists, "you will learn to make it through the sticking point and stay with the weight if the bar is 'stuck'."

### 3) DL TO THE KNEES, PREFERABLY STANDING ON BOX.

Pause at the knees for 3-5sec.

### 4) ISOMETRIC DL AT THE STICKING POINT.

Do these after your regular deadlifts and use no straps. Some loading parameters to choose from:

1. 3sec/5 sets
2. 5sec/3 sets
3. 10sec/1 set

Not anchoring your liftoff with a hip flexor 'pinch' is one of the reasons you may be having a problem holding your arch. Review the *Strength Stretching* DVD to learn how to effectively use the hip flexors in the SQ and DL.

## THORACIC SPINE

You may start the pull with your upper back somewhat rounded, if your technique demands it, but it may not flex any more once the bar gets moving. If your upper back bends towards the end of the pull, a proven remedial drill is a partial deadlift. Sheyko recommends pulling from slightly below the kneecaps. Obviously, you must not go so heavy that your upper back caves in or you would be defeating the purpose of the exercise.

Kaz invented an exercise which will hit all your upper back weak spots with laser like precision. Lie face down on a flat or incline bench, the part of your torso above the sternum hanging off. If the bench is flat, someone will need to hold your feet down. Hold a weight in one hand. Let your spine slightly flex and rotate as you lower the bell a few inches. Then pull back and bring your spine back to neutral. Don't shrug up and don't hyperextend.

Switch hands and repeat. Then slide up higher on the bench so more of your torso is off the bench and repeat. Renowned spine biomechanist Stuart McGill, Ph.D., who gives this drill a thumbs up, recommends seven to eight levels to hit all the back extensor motor units. "Loads in the hands are typically not large initially since the objective is to focus on the ability to sense the different section of the muscle and activate them—mental imagery is most important here."

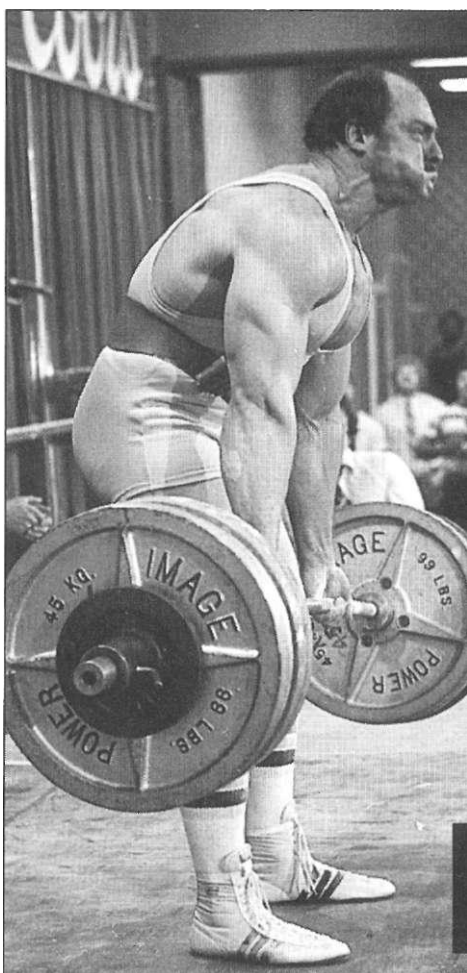
"The moving fulcrum during back extensor exercise is a philosophical approach to train different motor units within the muscle... the fulcrum is systematically moved along the torso, slightly changing the mechanical demands with each positional change. This systematically challenges each section of the extensor motor unit pool." The scientist insists that you focus on feeling the right muscles. "Imagery enhances the activation of every available motor unit."

You may have to put a short stiff pad on top of the bench if the latter does not allow you to comfortably hang off the edge. Or lie on a gym ball with your feet hooked under.

## SCAPULAE

An obvious beginner mistake is starting the pull with the shoulders shrugged up and/or back. Beyond that, the problem occurs if you fail to take the slack out of the bar with your lats or do it incorrectly. By incorrectly I mean recruiting your wings as you would use them in a bent over row. The right way is similar to the gymnastics front lever or the straight-arm pulldown. The lats should contract as a unit with the serratus anterior and the obliques, 'closing' your sides. Your shoulders will 'antishrug' towards your pelvis.

Although a maximally protracted position would shorten the stroke, Master RKC Kenneth Jay warns that you might end up with an anterior shoulder impingement, especially on the pronated side, if you overdo it. Besides, some lifters will have difficulty getting their shoulders back at the top if they start extremely protracted. So you will need to individualize the degree of scapular retraction.



The best lat loading technique that I have come across I have learned from Master RKC Mark Reifkind. Set your lower back arch with your knees slightly flexed as you are standing over the bar. Take your air in and descend with tension. Barely reach down to the bar, this will keep your shoulders low, shorten the stroke, and hopefully prevent later leakage.

Reach for the bar and set your grip one hand at a time. How you do it is the key. As you have gripped the knurling, your arm and shoulder still taught, your body stiff as if a super tight squat suit and knee wraps are not letting you get down, hiss out a little air. It is the power breathing technique I have taught in *Bullet-Proof Abs*. Stick your tongue between your teeth, contract your abs and the obliques on the side you are setting your grip on, and hiss out a little air under high pressure. The technique is worth patiently practicing to get it right as it delivers much more tightness than any other kind of exhalation.

**There is no leakage in John Kuc's lats.**

Photo courtesy Powerlifting USA

If you do all of the above correctly, your lat will lock in so strongly that the bar will noticeably bend (the technique is best practiced with a whippy DL or WL bar). Your waist will also be perfectly braced. Still 'having difficulties getting down', barely reach the bar with your other hand and repeat the process. Make sure not to drop your hips too low. Now hit it!

## ELBOWS

If you start the lift with your elbows flexed, the weight will soon straighten them out for you. Care for a biceps tendon reattachment surgery?

Lock your elbows and cramp your triceps as you are descending to the bar and keep them that way. Do not look down if arm pulling is a problem for you; look over the ref's head.

## WRISTS

Goosenecking your wrists when setting your grip does not always work. RDC says: "If the hands are rotated as you grip the bar, it most likely will slip out as the weight pulls down, and pulls the rotated hands [flexed wrists] back to a straight up and down position."

It is my firm belief that the above recommendations will add a lot of pounds to your pull while making it a lot safer. Power and health to you!

# Why Russians Choose to Grind Their Pulls

935-pound deadlifter Mark Henry quipped that "what makes a good powerlifter is a slow gear." In other words, when you need to pull a car out of a ditch you call a tow truck, not a Ferrari. This is the philosophy behind the Russian powerlifting coaches' advice not to gun your deadlift attempts. Smolov's. Surovetsky's. Sheyko's.

Sergey Smolov, Master of Sports first articulated it in 1990, the year the Soviets joined the IPF and took their first medals at the Worlds: "An important correlation exists—the faster the muscle contracts, the less force it can develop at maximum tension, i.e. more strength is needed to lift a heavy barbell fast than to lift it slow and, accordingly, the slower is the barbell lift, the greater weight can be lifted."



There are at least three reasons for mentally preparing yourself for a steady, relentless effort, as opposed to having a speed mindset in your competition deadlift: Hill's force-velocity equation, Newton's second law, and Dikul's 460kg pull.

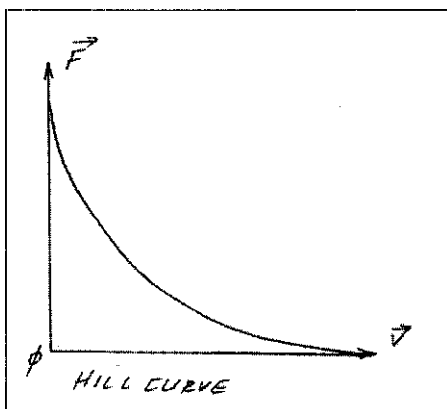
## 1. THE FORCE-VELOCITY RELATIONSHIP

The Hill equation states that the faster you go, the less tension, and therefore force, you will be exerting, and the other way around. Smolov cites this classic equation and concludes, "Which is why you should not try to deadlift a barbell fast—not that it is possible with maximal weights—but you should try to lift the barbell powerfully-steady, applying a maximal effort along the whole lift."

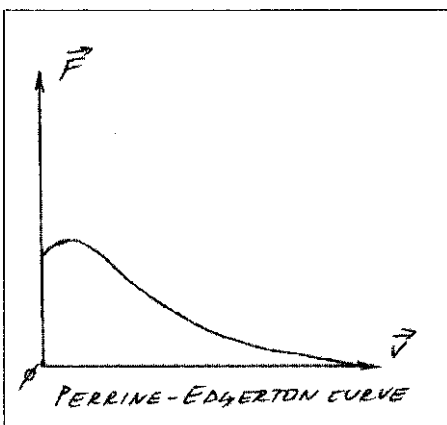
### RESPONDING TO GEEK ARGUMENTS

If you are not a nerd, skip this sidebar and avoid a headache.

Although the classic force-velocity curve has been repeatedly questioned by scientists, these studies are not likely to have any bearing on what we do on the platform.



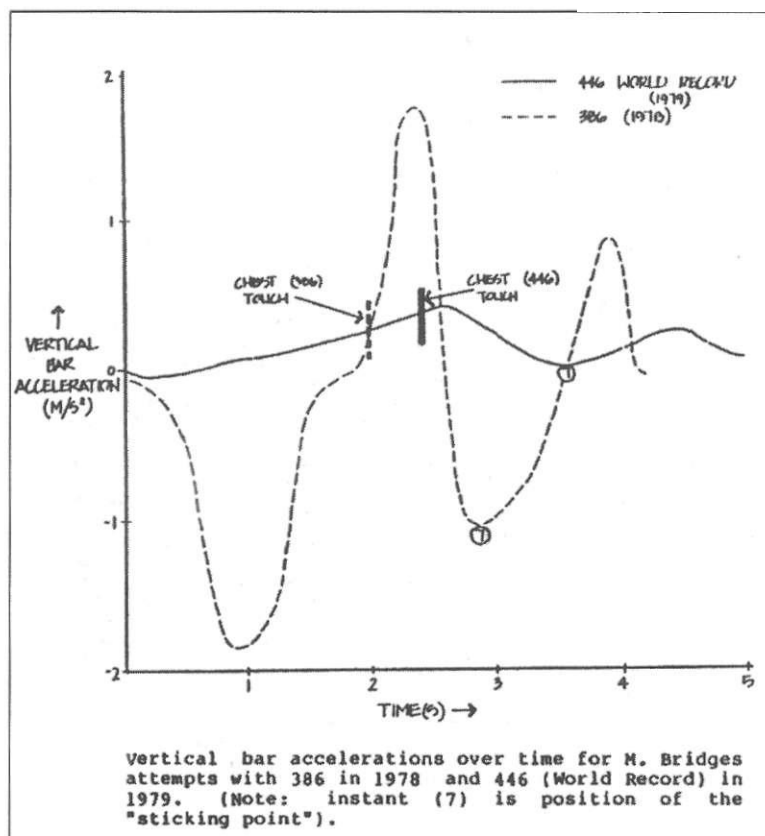
The Hill curve (1938) was hyperbolic, a non-stop downward slide of force as velocity increased from zero. It suggested that, without going into eccentrics, the slower you are, the stronger you are. Hill did his research in vitro, on a frog muscle removed from the body, which provided idealized conditions that allowed his beautiful equation. When the muscle was studied in vivo, in a living body, the neural control of the muscle modified the classic curve. Perrine and Edgerton (1978) had healthy adults perform an all out knee extension against an isokinetic dynamometer at seven different velocities. They discovered that while the force was at its highest at some slow speed, it dropped off slightly when the speed was at zero (an isometric contraction) or near zero. They concluded that neural inhibition was at fault: "A neural mechanism that restricts a muscle's maximal tension in-vivo is postulated as being responsible for the marked difference between the force-velocity relationship found for human muscles in-vivo and that exhibited by isolated animal mus-



cles." Which makes perfect sense—people who are not trained powerlifters do not have what it takes to grind a max attempt.

In no way does the above study suggest pulling your competition deads fast. I will venture a guess that if elite powerlifters were studied in an isokinetic deadlift dynamometer, their force-velocity curves would be close to Hill's ideal. A later study by Caiozzo, Perrine, and Edgerton (1981) supports this notion. Untrained subjects showed the same force drop-off when the conditions approached isometric. After four weeks of training, the curve of the subjects who trained at low velocities got closer to Hill's timeless curve. In other words, they learned how to grind.

Scientists may nitpick at Hill's curve all they want, but they are not going to budge Smolov's recommendations. In the words of Zatsiorsky and Kraemer (2006), "...force-velocity curves registered in natural human movements can be considered hyperbolic. The approximation is not absolutely accurate, but the accuracy is acceptable for the practical problems of sports training."



© 1984 Thomas M. McLaughlin, Ph.D. Reprinted by permission.

Beware applying Smolov's conclusions to lifts other than the DL. The late Dr. Mel Siff sternly warned that "the Hill and Perrine-Edgerton curves do not apply to actions which strongly recruit the stretch reflex or involve the release of stored elastic energy." It is doubtful that Hugh Cassidy had anything to gain from being fast when he benched his awesome 570, in a T-shirt and with a two-second pause. On the other hand, a modern lifter competing in a federation that allows touch and go BPs and a lot of gear, benefits greatly from being explosive. Even a deadlift with a dive start or an aggressive rocking start might opt out of Hill's equation.

## 2. $F=ma$

Force equals mass multiplied by acceleration. Any powerlifter can recite Newton's formula—once the obscure domain of straight A students—by heart, thanks to Louie Simmons. The formula makes it clear that you can exert more force with more acceleration. Now, what is acceleration? The rate of velocity change. (Do not confuse acceleration with velocity!) If you have been moving as fast as you can from the start of the lift, you will be forced to slow down at the sticking point because you are at your most disadvantageous leverage to exert maximum force. This deceleration will finish off your already low force output, compliments of Newton. Russian weightlifting texts have always emphasized that the barbell should be lifted off the floor slowly, without jerking—and that is in Olympic lifting. That way you can apply more acceleration to the bar later when it counts to exert more force.

## DAN JOHN HAS A FEW THINGS TO SAY

"Not only does this piece apply to lifting, but to throwing, too. It's funny how you mentioned O lifting: with the "Modern" Heels Only method (you keep your brain thinking that the weight is on or behind the heels, "wiggle your toes," but physics and the weight on the bar pulls you flat footed), it helps to start by trying to crush the platform with your heels and grind, grind, grind your way to China (the Chinese push to Utah).

"This allows you to get into the position where all the wonders of the human body...the leverage and stretch reflexes all "click" at once...and the bar snaps overhead in place.

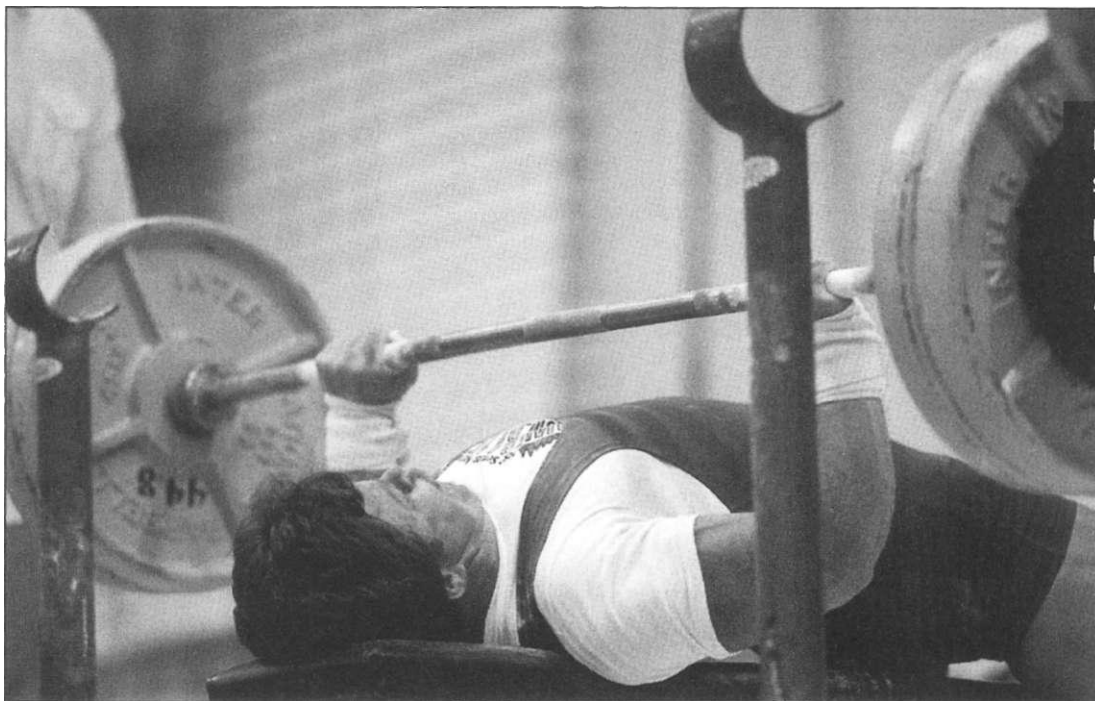
"My Coach, the late Ralph Maughan, taught us the key to throwing anything was "Constant Acceleration". Anybody can start fast, but speeding up after starting fast gives little [explosion]. Starting by grinding your "off foot" and letting things build allows you to snap the implement at the right time.

"It is difficult to teach this as the beginner wants to generate all the speed at the start and coast to the finish. And, by the way, the beginner is REWARDED at first with this method as the neophyte's light weights can be jacked overhead. That is why many people love the first months of training, but success comes when frustration arises. After missing over and over with just enough to demand better technique, the athlete tends to give in, grind it up, snap it at the right moment and continues on the path.

"That is why so many people like to 'dabble' with the first fleeting success of lifting. Then, then they try 5K runs or bike races or whatever. Greatness comes when you decide to be patient enough to take the time to lift/throw right."

Interestingly, this is what the best bench pressers in the pre-gear and minimal gear days used to do, according to Thomas McLaughlin, Ph.D. He studied the techniques of the leading benchers of the day, Kazmaier, Gaugler, Pacifico, and Bridges, compared them to that of the underdogs, and reported his findings in an outstanding book *Bench Press More Now: Breakthroughs in Biomechanics and Training Methods*. Rickey Crain has talked McLaughlin into reprinting it; get your copy from [www.crainsmuscleworld.com](http://www.crainsmuscleworld.com).

Dr. McLaughlin, a big bencher himself, learned that the elite lifters applied force to the bar more evenly throughout the lift than the less skilled lifters. The latter gunned their presses in the beginning, only to die at the sticking point. For example, Mike Bridges' 1979 world record 446 pound bench press—don't you dare to scoff at this poundage, consider the gear or lack of thereof!—moved a lot slower off the chest than Mike's 386 pound bench the year before. The bar acceleration before the sticking point peaked at approximately  $+0.4 \text{ m/s}^2$  in the world record lift. Compare that to  $+1.7 \text{ m/s}^2$  a year and sixty pounds earlier. Over 300% difference! On the other hand, once the bar reached the sticking point, the acceleration dropped to  $-0.1 \text{ m/s}^2$  in the record bench, but plummeted to  $-1.1 \text{ m/s}^2$  in the lighter lift, a 1,000% difference! Steady does it.



Mike Bridges' strength had patience.

Photo courtesy  
Powerlifting USA

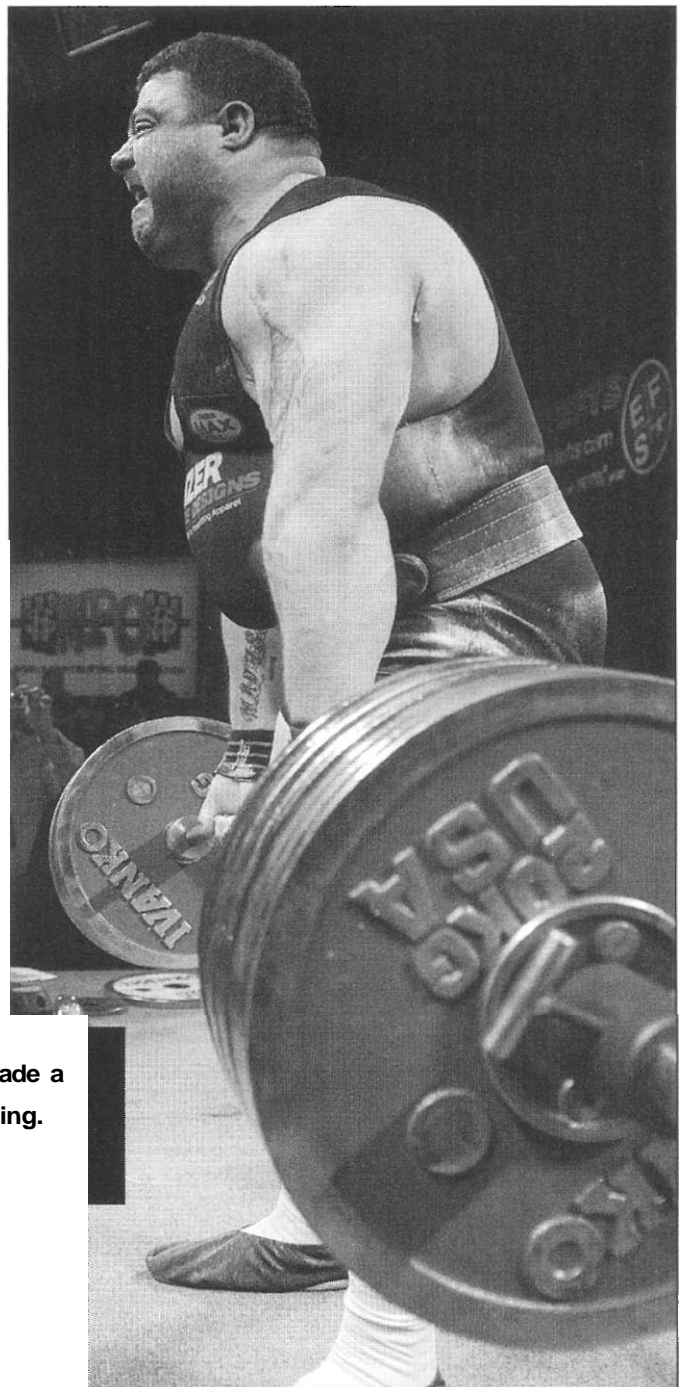
While Dr. McLaughlin's conclusions are not applicable to the XXI century BP, touch and go and triple ply, I believe they carry weight for the DL, as this lift does not benefit much from gear and the stretch reflex. I have run this statement by the good doctor and he has agreed.

The moral of the story: do not accelerate when it does not count, so you can when it does. According to Dr. McLaughlin, elite bench pressers are stronger than the lesser mortals at their sticking points rather than at their strongest. It appears that many elite lifters' strength curve, or strength at different points in the range of motion, flattens out. Being strong at the weak point is

what counts to get those big weights up, at least in raw powerlifting. An expert max lift is characterized by relatively even, low acceleration and velocity.

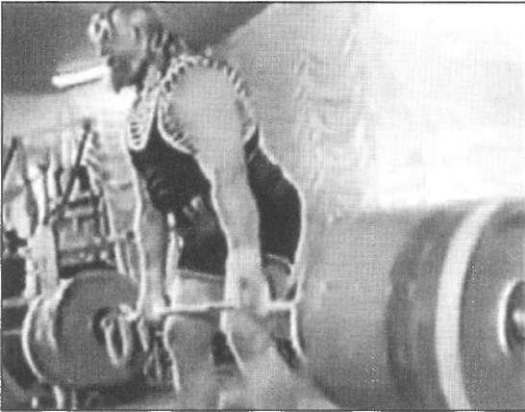
It must be pointed out that although the acceleration is low, it is still positive, in other words, the bar should be slightly speeding up towards the lockout. Sheyko emphasizes that "The barbell must leave the platform unhurriedly but afterwards it should move with constant acceleration..." Citing Smolov, the Russian national team's head coach says that the bar velocity must be at least 0.1m/sec by the time it has reached the knee level.

As we finish the discussion of Newton's formula I must clear up a possible misunderstanding. The Russians are NOT reducing the force by reducing the acceleration; they are trading acceleration for mass. Sheyko has paraphrased Smolov: "the slower is the barbell lift, the greater weight can be lifted."  $F=ma$ . If the force equals 4 units, you can get it many different ways:  $4=8 \times 0.5$ ,  $4=4 \times 1$ ,  $2 \times 2$ ,  $1 \times 4$ , etc. The first option is obviously preferable because you don't get points for lifting lighter poundages faster in a PL meet.



**Andy Bolton's 1,003 has made a convincing case for exploding.**

Photo courtesy *Powerlifting USA*



### 3. DIKUL

Watch Valentin Dikul grind 1,014 pounds to lockout with the inevitability of death:  
<http://rifsblog.blogspot.com/2007/06/valantin-dikul.html>

## COUNTERARGUMENTS

They are many and they are good. The force output starts dropping off in two seconds. It is possible to overcome the sticking point with superior starting strength and speed. Explosive attempts take less out of you and leave more juice for the later attempts. And so on, and so forth. Then there are Andy Bolton, Benedikt Magnusson, and Konstantin Konstantinov.

## THERE IS NO BOTTOM LINE

The debate about whether it is better to explode your pulls or to grind them is akin to arguing whether the sumo or the conventional style rules. Both sides can offer numerous convincing scientific and pseudo-scientific arguments and both have the proof in the pudding of competition. Which means that the correct answer will vary from lifter to lifter and there is no way around trial and error. There are simply too many variables to keep track of, known and still unknown. But if you choose to grind, here is how.

## HOW TO GRIND Your DEADLIFT

- Mentally prepare for a steady, relentless effort, as opposed to having a speed mindset.
- Pre-tense. Pressurize.
- Squeeze the bar off the floor, don't jerk.
- "Lift the barbell powerfully-steady, applying a maximal effort along the whole lift."  
(Smolov)
- Aim for a constant, low, acceleration towards the lockout.

There is more than one way to pull big.

# Index

## A

Acceleration  
     dynamic correspondence and, 10-12  
     force and, 178-180  
     speed of, 179-180, 181  
 Accommodation, law of, 41  
 Anderson, Paul, 6, 7, 52  
 Anello, Vince, 146, 149-150, 153  
 Ankles, in deadlifting, 170  
 Arch, in Russian bench press technique, 91, 97-98  
 Assistance exercises. *See also* Specialized variety  
     basic lifting vs., 46  
     bench presses as, 132-133  
     for deadlifting, 143, 166-167  
     effectiveness of, 41  
     nature of, 41  
     for Russian bench press technique, 101, 106  
     for Russian overhead press technique, 129-137  
 Austin, Dan, 162

## B

Baccari, Steve, 155, 169  
 Band presses, 134  
 Barbell French presses, 131  
 Barkhatov, Maxim, 109, 112  
 Base mesocycle, of Smolov squat super cycle, 63, 64, 65  
 Behind the back deadlifts, 43-44, 56  
 Belt squats, 54  
 Belts, use in squatting, 7, 54  
 Bench lockouts, 78  
*Bench Press More Now: Breakthroughs in Biomechanics and Training Methods* (McLaughlin), 179  
 Bench presses (BPs), 89-138  
     as assistance exercises, 132-133  
     cycling in, 28, 49, 100-101  
     equipment/gear for, 37, 106, 117, 179  
     force and, 179-180  
     overhead presses, 115-138. *See also* Russian overhead press technique  
     overhead press technique  
     Russian technique for, 89-114. *See also* Russian bench press technique  
     safety issues with, 60, 97

    specialized variety and, 59  
     training schedule for, 31-32  
     variations of, 15  
     weightlifting and, 133  
     workouts for, 34, 35, 36, 37, 38, 39  
 Berger, R. A., 31  
*Beyond Bodybuilding* (Pavel), 47, 71, 89, 90, 94, 96, 108  
*Beyond Stretching* (Pavel), 149  
 Biasiotto, Judd, 164  
 Bolton, Andy, 144, 181  
 Bottleneck effect, 42  
 Box deadlifts, 142, 143  
 BPs. *See* Bench presses  
 Bracken, David, 66  
 Breathing  
     in deadlifting, 174  
     in Russian bench press technique, 98  
     in Russian overhead press technique, 117  
 Bridges, Mike, 179  
*Bullet-Proof Abs* (Pavel), 174  
 Burgener, Mike, 116  
 Burnout. *See* Overtraining  
 Butenko, Andrey, 100-101, 112

## C

Cable exercises, 6  
 Calf work, 75  
 Captains of Crush® certified mitts, 117  
 Cassidy, Hugh, 177  
 Chernishev, Pavel  
     on descent/ascent in bench pressing, 92, 97  
     training plan of, 107-114  
 Clark, George, 44  
 Clary, Fred, 48  
 Classic exercises, 40. *See also* Russian powerlifters/powerlifting, exercise classification of  
 Classic power cycle, 47-49, 50  
 Classic presses, 125-126, 130, 134-135, 137-138. *See also* Russian overhead press technique  
 Cleans, and overhead presses, 117-118, 122. *See also* Russian overhead press technique  
 Coan, Ed, 12, 26, 51, 86, 146, 158, 162  
 Collapsing the arch, 97-98

Competition period  
 length of, 34  
 of Russian powerlifting training plan, 109-110  
 of Smolov deadlifting plan, 157  
 of Smolov squat super cycle, 63  
 of Ukrainian powerlifting training plan, 24-26  
 workouts for, 34-39  
 of WPC Team Russia, 34-39

Conditioning, adding to training, 14

Constant tension lower half presses, 135

Cook, Gray, 46, 169

Core Blaster, 54

Crain, Rickey, 170, 179

Cycling  
 concept of, 14  
 in bench pressing, 28, 49, 100-101  
 in deadlifting, 28, 32-34, 47-49, 52, 163-167  
 Russian approach to, 100-101  
 specialized variety and, 50  
 in squatting, 27-28, 32-34, 63-86  
 Westside Barbell and, 47, 86

**D**

Deadlifts (DLs), 141-181  
 American style of, 158-160, 162  
 assistance exercises for, 143, 166-167  
 breathing in, 174  
 cycling in, 28, 32-34, 47-49, 52, 163-167  
 equipment/gear for, 78, 144, 170  
 leg drive for, 153-154  
 round back style of, 144-150. *See also* Round back deadlifts  
 safety issues with, 46, 145, 146, 147, 150  
 specialized variety and, 47-49, 55-58  
 strength leakage in, 169-175  
 training approaches for, 32-34, 142-144, 151-152, 155-161  
 variations of, 15-16, 43-44, 51-52, 55-58  
 workouts for, 35, 36, 37, 38  
 world records for, 141-142

Deadlifts from edge, 56

Deadlifts to knees, 55

Depth squats, 53-54

Derevyanenko, Igor, 59, 89, 92, 100, 101

Descent, in Russian bench press technique, 92-93

Dikul, Valentin, 1-8  
 deadlifting by, 176, 181  
 injury/recovery of, 1-2  
 on isolation exercises, 6  
 training approach of, 3-8, 40

Distinguished Coach of Russia, designation as, 151

Ditilev, Sergey, 151

DLs. *See* Deadlifts

Drive off chest, in Russian bench press technique, 94

Drug use, 13, 30, 66, 77

Dumbbell/Kettlebell presses, 136

Dynamic correspondence, principle of, 10-12

Double military press, 107. *See also* Press

## E

Elbows, in deadlifting, 175

Equipment/Gear use  
 banning of, 14  
 belts, 7, 54  
 for bench pressing, 37, 106, 117, 179  
 for competition, 67  
 for deadlifting, 78, 144, 170  
 for overhead presses, 117  
 safety issues with, 35  
 for squatting, 35, 54, 67  
 for training vs. competition, 32

*Everything's Over My Head* (John), 118. *See also* John, Dan

Explosive training, 12-13, 64, 143, 181

## F

Falameyev, A. I., 11

Fatigue specificity, 5

Fedorenko, Yuri, 150, 161

Feduleyev, I. M., 66-67, 155-156

Feet, in deadlifting, 169-170

Foam deadlifts, 58

Force, formula for, 176, 178-180

Force-velocity relationship, 176-177

Foundation period, of Ukrainian powerlifting training plan, 17-20

Frequency, of training  
 individualization of, 76, 112  
 moderation in, 26  
 by Russian powerlifters, 29, 30-31

Frog deadlifts, 58

Front and side raises with kettlebells/dumbbells, 136

Funtikov, Georgiy, 74-76

## G

Gallagher, Marty  
 powerlifting/coaching ability of, 123, 151  
 on Russian powerlifters, 114  
 training approach of, 12, 26, 74-75, 78, 117



Garhammer, John, 41  
 Gillingham, Brad, 44  
 Glyadya, S., 46, 172  
 GMs. *See* Good mornings  
 Good mornings (GMs), 7, 14, 42  
 Grachev, Alexander, 77-86  
   background of, 77  
   on overtraining, 77  
   squat survival system of, 77-86  
 Grip  
   in Russian bench press technique, 90  
   in Russian overhead press technique, 116-117  
 Grooves  
   for non-powerlifters, 96-97  
   for powerlifters, 97-98

**H**

H-reflex, 9  
 Hack squats, 43, 44  
 Halbert, George, 42  
 Hand-off, in Russian bench press technique, 91-92  
 Handstand pushups on parallel bars/chairs, 137  
 Hang deadlifts, 56  
 Hatfield, Fred, 30, 76  
 Heisey, Gary, 55  
 Henry, Mark, 175  
 Hill's force-velocity equation, 176-177  
 Hips, in deadlifting, 171  
 Honduras survival system, 77. *See also* Grachev, Alexander

**I**

Inaba, Hideaki, 58  
 Intense mesocycle, of Smolov squat super cycle, 63, 64, 66-67  
 Intensity, of training  
   moderation in, 26, 163  
   variation in, 72  
 Inter- vs. intra-muscular coordination, 8, 9. *See also* Muscle development  
 Introductory microcycle  
   of Smolov deadlifting plan, 155-156  
   of Smolov squat super cycle, 63, 64  
 Invariances, of movements, 42  
 Inzer, John, 51  
 Isolation exercises, 5-6  
 Isometric presses, 131  
 Istomin, Sergey, 49

**J**

Jefferson squats, 57  
 John, Dan, 54, 118, 178  
 Johnson, Brad, 97  
 Jones, Arthur B., 9  
 Jones, Brett, 169  
 Jumps/Jumping  
   purpose of, 16  
   in Smolov squat super cycle, 64  
   variations of, 16, 27

**K**

Kaz. *See* Kazmaier, Bill  
 Kazakov, Ravi, 150  
 Kazmaier, Bill, 13, 14, 96, 173  
 Kettlebell/Dumbbell presses, 136  
 Kettlebells, 54, 78, 136  
 Khodosevich, Gennadiy, 7  
 Kilograms to pounds, conversion of, 106  
 Knees, in deadlifting, 171  
 Kono, Tommy, 145  
 Konstantinov, Konstantin  
   career of, 141-142  
   technique of, 145, 146, 148, 149, 150, 181  
   training approach of, 142-144  
 Korte, Stephan, 12  
 Kortunov, Vladimir, 109  
 Kotenzha, Leonid, 13-26  
   moderation and, 26  
   powerlift variations of, 15-16  
   training approach of, 13-14, 26. *See also* Ukrainian powerlifters/powerlifting  
 Kotov, A., 150-152  
 Kravtsov, Vladimir, 89, 95, 115  
 Krylova, Irina, 107  
 Kuc, John, 162  
 Kutcher, Oleksandr, 161

**L**

Law of accommodation, 41  
 Law of specific adaptations to imposed demands, 41  
 Lawrence, Rob, 13  
 Layoffs, from training  
   resuming training after, 27-29, 64, 155  
   Smolov squat super cycle and, 63, 64  
 Leakage, of strength, 169-175  
   definition of, 169  
   points of, 169-175  
 Leg curls, 75

Leg drive  
 in deadlifts, 153-154  
 in Russian bench press technique, 93-94  
 Ligett, Maria, 51  
 Load, variation of, 71-73  
 Lockout, in Russian bench press technique, 98  
 Long pull, in Smolov squat super cycle, 64  
 Lumbar spine, in deadlifting, 172-173

## M

Magnusson, Benedikt, 181  
 Maintenance training, and Smolov squat super cycle, 63  
 Maughan, Ralph, 178  
 McGill, Stuart  
 on deadlifting, 145, 146, 147, 172, 173  
 on muscle tenseness, 95  
 on strength leakage, 169  
 McLaughlin, Thomas, 179  
 Medvedev, Alexey, 40, 56, 77, 119  
 Military presses, 135  
 Murashova, A., 151  
 Muscle development  
 isolation exercises for, 5-6  
 nervous system and, 9-10  
 slow twitch muscle fibers and, 77  
 specialized variety and, 42-45  
 Muscle tenseness, and responsiveness, 95

## N

*Naked Warrior, The* (Pavel), 12, 102, 120  
 Narrow grip presses, 130  
 Nervous system  
 adaptability of, 43  
 training of, 9-10  
 Neuroplasticity, 43  
 Newton's second law, 176, 178-180

## O

O'Connor, Jeff, 160  
*Obtyazhka*, 168  
 One-and-one-half presses, 132  
 One-arm deadlifts with bar in front, 58  
 One-arm presses, 136  
 One-arm pushups, 93  
 Overhead presses. *See* Russian overhead press technique

Overload approach, of Funtikov squat cycle, 76. *See also* Funtikov, Georgiy  
 Overtraining, 12, 34, 77. *See also* Training stress  
 Ozolin, Nikolay, 41

## P

Papazov, Vitaly  
 record setting by, 13  
 training plan of, 14-26  
 Parallel bar dips, 137  
 Pavlov, Konstantin, 59, 60  
 Pavlov, Sergey  
 introductory squat cycle of, 28  
 on layoff recovery, 27-28  
 training approach of, 8, 9, 27-28, 29  
 Peaking cycle, 34-39, 157. *See also* Competition cycle  
 Peoples, Bob, 145, 146  
 Percentage-based routines, of deadlifts, 164-165, 166  
 Periodization, 137  
 Podtinny, Maxim, 146, 161  
 Pounds to kilograms, conversion of, 106  
 Power good morning, 7. *See also* Good morning  
*Power to the People!* (Pavel), 98, 100, 102, 146  
 Preparatory/Preparation period  
 of Russian powerlifting training plan, 109-110  
 of Ryabinnikov squat cycle, 68-73  
 of Smolov deadlifting plan, 156-157  
 of Ukrainian powerlifting training plan, 13, 14, 21-24  
 Press starts, 135  
 Presses. *See* Bench presses; Russian bench press technique  
 Presses behind neck, 131  
 Presses from bridge, 59  
 Presses from eye level, 131  
 Presses from stands, 132  
 Presses starting with bar low on chest/stomach, 131  
 Principle of dynamic correspondence, 10-12  
 Principle of variety and novelty, 41  
*Protyazhka*, in Smolov squat super cycle, 64  
 Pulls. *See* Deadlifts  
 Push presses/Push bench presses, 89, 95-96, 99, 101, 134-135. *See also* Russian bench press technique  
 Pushups, 93, 137

## R

- Ray, Ronnie, 108
- Reape, Jack, 138
- Reifkind, Mark, 46, 53, 97, 153, 159-160, 174
- Relative timing, 42-43
- Relax into Stretch* (Pavel), 149
- Repetitions, variation in, 72
- Resilient* (Pavel), 169
- Reverse shrug presses, 136
- Rif. *See* Reifkind, Mark
- Rigert, David, 14, 118
- Rodionov, V.I.  
 on assistance exercises, 129, 130  
 on bench pressing, 132, 134  
 on Olympic pressing, 95  
 on Russian overhead press technique, 117, 118, 119, 120, 121  
 on specialized variety, 41
- Rogozhnikov, Konstantin  
 on overtraining, 34  
 training approach of, 30-39. *See also* WPC Team Russia
- Russia
- Roman, Robert  
 on assistance exercises, 129, 131  
 on bench pressing, 132, 133  
 on push pressing, 134-135  
 on Russian overhead press technique, 115, 118, 120  
 training approach of, 125-126, 127-129
- Round back deadlifts, 144-150  
 pros vs. cons of, 145-146  
 safety issues with, 145, 146, 147, 150  
 technique for, 148-150
- Russian bench press technique, 89-114. *See also* Russian powerlifters/powerlifting
- Russian powerlifters/powerlifting  
 assistance exercises for, 101, 106  
 cycling in, 100-101  
 effectiveness of, 89  
 elements of, 90-95, 96-98  
 guidelines for non-powerlifters, 96-97, 99  
 guidelines for powerlifters, 97-98  
 "rep waves" in, 109-114  
 safety issues with, 92  
 training programs for, 100-101, 102-106, 107-114
- Russian overhead press technique, 115-138. *See also* Russian powerlifters/powerlifting
- Russian powerlifters/powerlifting  
 assistance exercises for, 129-137  
 effectiveness of, 115  
 elements of, 116-118  
 equipment/gear for, 117  
 technique of, 118-124  
 training for, 125-138  
 variations of, 115
- Russian powerlifters/powerlifting. *See also* Ukrainian powerlifters/powerlifting; WPC Team Russia
- bench press technique of, 89-114. *See also* Russian bench press technique
- Russian bench press technique  
 characteristics of, 68, 109, 114  
 criticism of, 77  
 exercise classification of, 40-41  
 layoff recovery by, 27-29  
 overhead press technique of, 115-138. *See also* Russian overhead press technique
- Russian overhead press technique  
 training frequency of, 29, 30-31  
 views of Westside Barbell by, 150
- Russian sumo deadlift technique, 167-168. *See also* Sumo deadlifts
- Ryabinnikov, Oleg, 68-73

## S

- Saddle deadlifts, 57. *See also* Deadlifts
- Sale, Digby, 42, 43
- Scapulae, in deadlifting, 174-175
- Schmidt, Richard, 42
- Schroeder, Jay, 153, 171
- Seated presses, 115, 132
- Seated Zercher, 7. *See also* Zercher squats
- Secrets of the Foot and Ankle, The* (Cook and Jones), 169
- Selkhaihaho, Sakari, 56
- Set-up, in Russian bench press technique, 90
- Shapovalova, N., 151
- Sheyko, Boris  
 on bench pressing, 91, 94, 97, 106  
 on deadlifting, 46, 55, 56, 146, 173, 175, 180  
 on jumps/jumping, 16  
 on Louie Simmons, 150  
 training approach of, 8, 9, 12, 13, 26, 29, 77, 86, 125, 138, 150
- Shoulder raises, 78
- Shprints, Lev, 39, 133
- Siders, Brian, 89
- Siff, Mel, 11, 12, 177
- Simmons, Louie. *See also* Westside Barbell  
 on bench pressing, 96  
 on deadlifting, 44, 58, 145  
 influence of, 150  
 on isolation exercises, 5  
 on muscle fatigue, 43  
 on seated Zercher, 7  
 on specialized variety, 41, 42, 43, 47  
 training approach of, 125, 138

- Slow presses, 134
- Slow twitch muscle fibers, 77
- Smolov, S. Y.
- deadlift plan of, 155-161, 175
  - on force-velocity relationship and deadlifting, 176, 177, 180
  - introductory squat cycle of, 27-28
  - squat super cycle of, 63-68, 70, 78, 86, 155, 156
  - on training volume, 26
- Snatch grip deadlifts, 55
- Specialized variety, 39-60
- approaches to, 46-53
  - basic lifts vs., 46-47
  - bench pressing and, 59
  - cycling and, 50
  - deadlifting and, 47-49, 55-58
  - definition of, 41, 45
  - drills for, 53-60
  - effectiveness of, 41-45
  - guidelines for, 50
  - lift variations for, 45, 50
  - muscle development and, 42-45
  - squatting and, 53-54
  - theory underlying, 39-41
- Specific adaptations to imposed demands, law of, 41
- Specificity vs. variability, in training, 41
- Speed presses, 134
- Squats, 63-86
- cycling in, 27-28, 32-34, 63-86
  - equipment/gear for, 35, 54, 67
  - Funtikov's cycle of, 74-76
  - Grachev's survival system of, 77-86
  - introductory cycles of, 27-28, 32-34
  - relative timing and, 42-43
  - Ryabinnikow's cycle of, 68-73
  - Smolov's super cycle of, 63-68, 70, 78, 86, 155, 156
  - specialized variety and, 53-54
  - variations of, 7, 16, 53-54
  - workouts for, 35, 36, 37, 38
  - WPC Team Russia approach to, 32-34, 164, 165
- Standing presses, 115, 135
- Starov, M., 46, 172
- Steinberg, Jeff, 52, 53
- Steroid use, 76, 77. *See also* Drug use
- Stogov, V., 115, 118
- Strossen, Randall, 14
- Strength leakage, 169-175
- definition of, 169
  - points of in deadlifting, 169-175
- Strength practice approach, 12-13
- Strength Stretching* (Pavel), 91, 106, 168, 171, 173
- Sumo deadlifts, 51-52, 161, 163-164, 167-168. *See also* Deadlifts
- Super Joints* (Pavel), 106
- Supine push presses, 108. *See also* Push presses
- Surface features, of lifts/movements, 42, 45
- Surovetsky, Askold, training plan of, 162-168, 175
- Switching
- in Smolov deadlifting plan, 156
  - in Smolov squat super cycle, 63, 64, 65-66
- Synaptic facilitation, 9
- ## T
- Tapering, of Smolov squat super cycle, 63, 64, 67
- Technique practice, frequency of, 8, 9-10
- Tempo presses, 115, 116
- Tension stretching, 168
- Thoracic spine, in deadlifting, 173-174
- Training stress, 30. *See also* Overtraining
- Turtiainen, Ano, 144, 153
- ## U
- Ukrainian powerlifters/powerlifting, 13-26. *See also* Russian powerlifters/powerlifting
- Russian powerlifters/powerlifting
- characteristics of, 114
  - powerlift variations of, 15-16
  - training plans of, 17-26
- Ultimate Back Fitness and Performance* (McGill), 95, 145, 146, 172. *See also* McGill, Stuart
- ## V
- Variability vs. specificity, in training, 41
- Variety and novelty, principle of, 41-41
- Velitchenko, V, 2
- Velocity, and dynamic correspondence, 10-12
- Verkhoshansky, Yuri, 10, 12
- Vitkevich, Nikolay, 101
- Vlasov, Yuri, 6, 123-124, 132-133, 171
- Volkov, Vladimir, bench press training program of, 102-106
- Volume, of training
- moderation in, 26
  - variation in, 72
- Vorobyev, Arkady
- on assistance exercises, 129
  - on bench pressing, 133
  - on deadlifting, 146, 172
  - on Russian overhead press technique, 117, 121
  - training approach of, 126-127
- Vorotintsev, Alexey, 95-96

**W**

- Warm-up, in Smolov squat super cycle, 64
- Weighted jumps, 16. *See also* Jumps/Jumping
- Weightlifting, decline of, 133
- Weil, Rick, 96
- Westside Barbell (WSB). *See also* Simmons, Louie
- approach to isolation exercises of, 5
  - cycling and, 47, 86
  - exercise variety and, 26, 39, 41, 156
  - Russian powerlifters'/coaches' views on, 150
- Wide grip presses, 130
- Wohleber, Dan, 141
- Workman, Patrick "Phil," 10, 53
- World Powerlifting Congress Team Russia. *See* WPC Team Russia
- World Powerlifting Congress World Competition. *See* WPC World Competition
- WPC Team Russia, 30-39
- drug use by, 30, 66, 77
  - training plan/schedule of, 30-39, 164, 165
- WPC World Competition, training plan for, 78-85
- Wrists, in deadlifting, 175
- WSB. *See* Westside Barbell

**X**

- Xtreme Deadlifting* (Crain), 170

**Y**

- Yakubenko, Yaroslav, 40, 56

**Z**

- Zatsiorsky, Vladimir, 11, 12, 41, 42
- Zercher deadlifts, 147
- Zercher squats, 53. *See also* Seated Zercher
- Zhabotinsky, Leonid, 39