

The Periodization Bible — Part II
The New Testament — Conjugated Periodization
by Dave Tate

You wanna get strong? You wanna lift so much weight that your gym has to order more plates? You wanna be able to grab a few girls, stack'em on top of each other and hoist them high into the air using only your pinky finger while you peer furtively up their skirts? Sure, who doesn't? Strength is a cool side effect of bodybuilding, but if you really want to develop maximal strength, two things are for certain. One, you'd better use periodization and two, you better listen to Dave Tate.

In [Part I](#) of this article, Dave gave you a thorough explanation of linear (or Western) periodization. This time, Dave will explain the improved Westside variation of this popular method.

The Westside method is a periodization program known as *conjugated periodization*. Simply put, this means that several abilities are coupled together throughout the training. The Western method of periodization separates these variables while the Westside method puts it all together at the same time. The entire Westside method is centered around three basic pathways to strength development:

1. Max Effort
2. Repetition
3. Dynamic Effort

The Max Effort Method

The max effort method is considered by many coaches and athletes as being the superior method of strength development. It places great demands on both intramuscular and intermuscular coordination as well as stimulating the central nervous system. These demands force the body into greater adaptation and this adaptation is what's responsible for strength gains.

When training using the max effort method, the central nervous system inhibition is reduced. Thus the max number of motor units are activated with optimal discharge frequency (Zatsiorisky). The one drawback to using this method is that you can't train with weights above 90 percent RM for much longer than three weeks before the nervous system begins to weaken. When this happens your strength will begin to diminish.

This is one of the major reasons why progressive overload will only work for so long. With this in mind, Westside set out to find a way around this three-week barrier. The way to overcome this barrier is to switch the exercises used for the max effort method every one to three weeks. This keeps the body fresh so the method can be used year round.

So how do you use this method? First, decide on one main exercise that will be trained with this method. After a proper warm-up, proceed to this exercise and begin to warm up with the bar. Taking small weight increases, you begin to work up in weight with sets of three reps. When three reps begins to feel heavy, you drop down to single reps. This is when you begin to try to max out on the exercise. Keep increasing the weight until you've reached your one rep max. Make sure to keep track of what this record is because this is what you'll try to beat next time out. A max effort exercise would look like this:

*Floor Press

Sets	Reps	Weight
2	5	45
2	3	95
1	3	135
1	3	185
1	3	225
1	3	275
1	1	315
1	1	365
1	1	405
1	1	425

*A floor press is done just like a bench press,
but while lying on the floor.

In the above example, 425 would represent the lifter's one rep max. This is the number that should be recorded and that you'll try to break on a later date. It's very important to use this method with only *one* exercise per workout and no more than one time per week for each lift. The Westside method schedules one max effort day for the bench and one for the squat and deadlift as follows:

Monday: Max effort day for building the squat and deadlift (while this seems contradictory to the above statement — doing only one exercise per workout — it's not, in that you'll be doing one exercise to build both movements).

Wednesday: Max effort day for building the bench press.

Since many of the same muscles are used for the squat and deadlift, they're trained on the same day. Actually, very little deadlifting is performed with this style of training because of these reasons.

The best max effort exercises for the squat and deadlift are good mornings, low box squats and deadlifts themselves. The good morning is probably the best overall exercise for strength development and should be utilized 70% of all max effort days. There are several different types of good mornings that can be performed. Good mornings using a variety of different bars such as the safety squat bar, buffalo bar, and cambered bar are classics at Westside Barbell.

Many of these good mornings are performed with the bar suspended from chains. By suspending the bar from the power rack (called *Anderson good mornings* or *suspended good mornings*), you're creating the same specificity as when you deadlift. This is because you start the deadlift without any eccentric or lowering motion. This is also true when you have to squat under a suspended barbell and lift it to a standing position.

The best max effort exercises for the bench press are the floor press, board press, close grip bench press, JM press, and reverse band presses. All pressing motions! As with the squat and deadlift max effort exercises, there are several variations of each movement. Each exercise has a specific function.

For instance, the floor press (basically lying on the floor, benching *sans* bench) takes your legs out of the motion so greater emphasis is placed on the pecs, delts and triceps. The close grip incline press takes your lats out of the motion so there's greater emphasis placed on the deltoids and triceps. The board press also takes your lats out of the motion and provides you with the opportunity to train at specific

points of the bench press.

The max effort meso cycle should only last one to three weeks with the latter being for the novice and intermediate strength athlete. The more advanced the athlete, the shorter the time spent per cycle (or time spent per max effort exercise). This is due to the neuromuscular coordination and motor learning. The advanced athlete can call upon more motor unit activation (use more muscle) than the novice. For example, the novice may use 40% of his total muscle while the advanced lifter will be able to use 80%.

The second reason involves neuromuscular and muscular coordination. The advanced lifter has already figured out and mastered how to do the movement. His body knows what to do and when. The novice athlete hasn't figured out how to do the movement and is far from mastering it. This will allow the novice to progress and break records for around three weeks on each max effort exercise. However, this won't be the case for the advanced athlete.

These advanced athletes will have one good week where they break a record then will be unable to break it for the next two weeks. So the solution is simple: switch every week! This will allow you to break records on a weekly basis and avoid overtraining. (Max effort training, by the way, is a process of learning how to better synchronize the muscle involvement. This is because of the activation of the central nervous system as well as other factors such as motivation and concentration.)

If you don't always break a record, don't worry about it. The strain is more important than the record itself. With this in mind, if you happen to break your record and it was very easy, to the point that you really didn't strain, then you must take another record where you actually strain.

Max Effort Parameters	
Load (Intensity)	90 to 100%
Number of Exercises	1
Repetitions	1-3
Rest Interval	2-5 minutes
Frequency / Week	1 (Squat Day) / 1 (Bench Day)
Weeks per Exercise	1-3

The Repetition Method

The repetition method, otherwise known as the bodybuilding method, is the best method for the development of muscle hypertrophy (growth). This is the method in which all supplemental and accessory exercises are trained. This method is defined as "lifting a non-maximal load to failure." It's during the fatigued state when the muscles develop maximal force. According to this method, it's only during the final lifts that, because of fatigue, the maximal number of motor units are recruited. This system of training has a great influence on the development of muscle mass which is why it's become so popular among the bodybuilding population.

The fact that the final lifts are performed in a fatigued state makes this method less effective compared to the others when it comes to maximal strength development. This is one of the reasons why powerlifters are much stronger than bodybuilders. Another disadvantage of this method is that each set is carried to failure. This makes it very difficult to increase your volume and work capacity over time because of the amount of restoration needed. Training to failure is very hard on your ability to recover and in my opinion should only be used sparingly. When you extend a set to failure many times, the last few reps are performed with bad technique and this, of course, can lead to injuries.

Westside has modified this principle to what I refer to as the *modified repetition method*. With the modified version all sets should be stopped with the breakdown of technique and there should always be a rep or two left in you. Remember this principle is applied to all supplemental and accessory movements. These movements are designed to be exactly what they are: supplemental and accessory. The main goals of these movements are to complement the overall training program, not take away. By training to failure on every set you'd be taking away from the general purpose of the movements, which is to increase work capacity.

The parameters of this method are varied and depend upon the individual. Some athletes develop muscle mass with high reps and other with low reps. It would be crazy to assume one specific rep range works for everybody. What we've found to be best with supplemental and accessory work are sets in the range of 5 to 8 with repetitions between 6 and 15. This is a rather large range, but as I mentioned before, everybody is different. If you've been training for some time, I bet you have a better idea of what works for you than I could ever prescribe.

The load or weight to be used should fall in the 60 to 80% range and you should always leave a rep or two at the end of each set. Try to switch the exercise after every one to five workouts in which it's used. If you decide not to switch the exercise then switch the way it's trained. Try to add an extra set for a few weeks. Try to work it up for four weeks then deload it for four weeks. The point is to change it up as much as possible.

Modified Repetition Method Parameters

Load (Intensity)	60 to 80%
Number of Exercises	All Supplemental and accessory
Sets / Repetitions	5-8 / 6-15
Rest Interval	1-3 minutes
Frequency / Week	All workouts
Weeks per Exercise	1-5

The Dynamic Effort Method

The dynamic effort method is used to train the box squat and bench press. This method is defined as lifting a non-maximal load with the greatest speed possible. This method should be coupled with compensatory acceleration. This means you must apply as much force as possible to the barbell, i.e. pushing as hard and as fast as you can in the concentric phase of the lift. If you squat 700 pounds and are training with 400 pounds, then you should be applying 700 pounds of force to the barbell.

The weight used should be non-maximal in the 50% to 75% range. In the text *Supertraining*, Siff and Verkeshonsky state the best range for developing explosive strength in the barbell squat is two-thirds of your best one rep max. Angel Spassov defines this as 50 to 70%. This method isn't used for the development of maximal strength but for the improved rate of force development and explosive force. Let's assume an athlete can only get so strong for genetic reasons. If this lifter has reached his genetic strength potential and has been stuck for five years, can he not get stronger?

I was told at one time that I had reached this limit. I was told this by several university professors in the field of exercise science. What they forgot is that if I learned how to better synchronize my muscles to perform, then I could get stronger by better neural activation. The result was 300 more pounds on my total! This is because at the time I may have only been activating 50% of my absolute strength potential. Through dynamic effort training I was able to activate 70 or 80%. (The percents are used as examples,

this was never tested.) This is also a reason why the percent should never be as important as bar speed. Everybody has different motor learning and the advanced strength athlete will activate more than a novice athlete. This is why the more advanced the lifter is, the harder the work is.

For example, if both athletes performed a set of 10 reps in the barbell squat with 80%, the novice would walk away like it was no big deal while the advanced athlete wouldn't be walking anywhere because he'd be on the floor! If you've followed Louie Simmons' articles over the years, you'll notice how the percents he writes for the squat and bench press have reduced over the years. This is because the gym as a whole has gotten so much stronger and more experienced. The percent for the bench press used to be around 70, now it's around 45 to 55%. Many have asked how this can be. Well, as stated above the athletes are now recruiting more motor units than before so less percent is needed to produce the desired results.

The best way to determine what your training percent should be is to begin with 50% and have someone videotape your bar speed. If you can maintain this bar speed then increase the percent. When the bar slows down then decrease the percent.

The dynamic days are scheduled as follows:

Friday: Dynamic effort squat day

Sunday: Dynamic effort bench day

These dynamic days are to be done 72 hours after the max effort day to allow for proper recovery. The training scheme for the dynamic days begins with plenty of warm-up sets and progresses onto the work sets. For the bench press, use 8 sets of 3 reps and for the box squat use 8 sets of 2 reps. There are many reasons for this set and rep structure.

The first reason is because of Prilepin's charts (see below). Prilepin studied weight lifters to see what the optimal number of reps in each intensity zone should be. Louie applied this research into the training of the power lifts. At the time the bench press was being trained in the 70% range while the squat was being performed in the 80% range.

This would equate to an optimal number of 18 lifts for the bench press in a range of 12 to 24 reps, and 15 lifts for the squat in a 10 to 20 rep range. He decided on two reps for the squats and three reps for the bench press because of time specificity of the competitive lifts. The time to unrack the weight to the completion of the lift in competition came out very similar to two reps in the box squat and three reps in the bench press.

Optimal Number of Lifts by Percent (Prilepin 1974)

Percent	Repetitions	Optimal	Range
70	3-6	18 lifts	12-24
80	2-4	15 lifts	10-20
90	1-2	7-10 lifts	4-10

The second reason for this set and rep structure is because it has stood the test of time and has worked over and over again without flaw. This has created an evolving system where the optimal number of lifts has remained 16 for the box squat and 24 for the bench press for weights under 80%. We've also found that weights above 80% needed to be handled for 10% of all lifts. This is accomplished by working up after your sets are completed. These extra bonus sets shouldn't be used every workout, but should make up ten out of every 100 lifts.

Here's a sample dynamic box workout:

Box Squats			
Sets	Reps	Weight	Rest
2	2	135	1 min
1	2	225	1 min
1	2	315	1 min
1	2	405	1 min
8	2	455	1 min

The squat workout should begin after a general warm-up of exercises such as reverse hypers, sled dragging and pulldown abs. These exercises should be light and used to warm up and get loose. The first sets should be light and concentrate on good technique. Do as many sets as you need with the lighter weight until you feel warmed up. Progress up to your desired training weight. Once at your training weight, the rest period becomes critical. You'll only rest one minute between sets.

The goal of this is to fatigue the fast twitch muscle fibers. These are the fibers responsible for explosive strength and power. We want these muscle fibers to become fatigued so over time they'll adapt and become stronger. The other reason is that the more you fatigue, then the more fibers will become activated with each set. A fatigued muscle fiber won't work as well, so the body will activate more and more muscle fibers to complete the workout. A one-minute rest constitutes about a 1:6 work to rest ratio and anything over 1.5 minutes will defeat the training effect.

Bench Press			
Sets	Reps	Weight	Rest
2	5	45	1 min
1	3	135	1 min
1	3	185	1 min
1	3	225	1 min
8	3	275	1 min

The bench press workout should begin with a light general warm-up consisting of upper body sled work and warm-up exercises for the bench press. These can include light shoulder raises to the front, side and rear, as well as some light triceps extension or pushdown movements. After the warm-up you'd move onto the actual bench press movement.

Begin with the bar for as many sets as necessary to feel loose and warmed up. Increase the weight with 20 or 50 pound jumps depending on your strength level and begin the dynamic work sets with whatever the prescribed percentage is for the day. You'll perform 8 sets of 3 reps in a dynamic fashion. These reps should be performed with compensatory acceleration.

When you finish the bench press movement, you'll move onto the supplemental exercise for the day. This exercise should be some type of tricep press or extension movement. The best ones for this purpose are the close grip bench press, JM press, barbell extensions or dumbbell extensions. The intensity should be high and the volume low. We've found sets in the range of two to four with 3 to 8 reps to be excellent. These sets are started after all warm ups for the exercise have been completed.

The accessory exercises that follow should include movements for the shoulders and lats. These movements should be of moderate intensity for intermediate rep ranges. This may be three to five sets of 8 to 15 reps. You should leave one or two reps at the end of every set. This means you won't go to

failure, which will ensure proper recovery for the next workout. Upon completion of these movements you'll move onto prehabilitation work consisting of external rotation moments for the shoulders and light pushdowns and or light sled work for the upper body.

Summary of the Four Day Program

The micro cycle of the Westside method is seven days consisting of two days for the squat and deadlift, and two days for the bench press. These days are outlined below:

Monday: Max effort squat and deadlift training

1. The max effort exercise: work up to 1 to 3 rep max
2. The supplemental movement:
 - This will include one exercise for the hamstrings. The best movements for them include partial deadlifts, stiff leg deadlifts, Romanian deadlifts and glute/ham raises for three to six sets of 5 to 8 reps.
3. The accessory movements:
 - One or two abdominal movements
 - One lower back movement: The best exercise for this purpose is the reverse hyper for three to four sets of 6 to 10 reps.
4. Prehabilitation Movements
 - This can include exercises for the knee and hip joints. The best movements for this purpose include any type of lower body sled dragging.

The meso cycle structure of this day depends on the exercise: The max effort exercise should be trained using the maximal effort method described above and cycled for one to three weeks; then you can switch to another movement. The supplemental movement should be trained using the modified repetition method and the exercise should be changed in one form or another every workout. This change can be modifying the set pattern or the repetition design or by totally switching to another movement.

For example, you may select the glute/ham raise for the first two workouts for both Monday's maximal effort and Friday's dynamic effort, but may do four sets of five for Monday and five sets of eight on Friday. Or, you may decide to do Romanian deadlifts instead of the glute/ham raise on Friday's workout. The key is to stay as fresh as possible and to keep the body in a constant process of adaptation. The accessory exercises may stay constant for a longer period of time because the intensity is lower. So you may pick the reverse hyper for all dynamic and max effort lower body days for four weeks. You may, however, still change the set/rep pattern.

Actually, the reverse hyper is a staple in our routine and is trained on all Mondays and Fridays with only slight modifications being made. Another very good and popular way to cycle the supplemental and accessory exercises is to cycle the weight in a step-like loading pattern where you'll push up the weight

being used for four weeks. Then you'll drop the weight back down and build back up again trying to exceed the weights used for the first cycle. The prehabilitation exercises are cycled in the same style as the supplemental and accessory movements.

Wednesday: Max effort bench press training

1. The max effort exercise: work up to 1 or 3 rep max
2. Supplemental exercise: Tricep movement with high volume (six to eight sets for 8 to 12 reps). The best exercises for this group include JM presses, and barbell or dumbbell extensions.
3. Accessory movements: (triceps, lats, delts)
 - This includes movements for the lats, shoulders and possibly extra tricep work. The best movements for this group include tricep extensions, rows and various shoulder raises.
4. Prehabilitation Movements: (training of the joints)
 - This includes movements for the elbow and shoulder joints: The best movements for this group include external shoulder rotations, press downs and sled dragging for two to four sets of 12 to 15 reps.

The training structure for this day is exactly the same as Monday's workout.

Friday: Dynamic squat and deadlift training

1. The box squat: Work up to 8 sets of 2 reps with prescribed percentage
2. The supplemental movement:
 - This will include one exercise for the hamstrings. The best movements for the hams include partial deadlifts, stiff leg deadlifts, Romanian deadlifts and glute/ham raises for four to six sets of 5 to 8 reps.
3. The accessory movements:
 - One or two abdominal movements for three to five sets of 6 to 12 reps
 - One lower back movement: The best exercise for this purpose is the reverse hyper performed for three to four sets of 8 reps.
4. Prehabilitation Movements
 - This can include exercises for the knee and hip joints. The best movements for this purpose include any type of lower body sled dragging.

Friday's training structure for the dynamic exercise (box squat) is cycled in a four week step-like loading pattern. If your first week's training percent is 60 then you'll want to cycle the weight up 10% for the next three weeks. For example:

Week	Percent
1	60%
2	63%
3	66%
4	70%

This four week meso cycle is intended to increase the dynamic explosive strength of the lower body and squat exercise. All squatting is performed on a box. Box squats are the best way to train for explosive strength because you go from a static to dynamic contraction.

The box squat is also the best way to teach squatting technique because it's easier to teach a person to sit back onto a box than without. (See my [article](#) in issue #120 for details on the box squat.) The box squat is trained using 8 sets of 2 reps. The supplemental, accessory, and prehabilitation exercises are cycled the same as in Monday's max effort workout.

Sunday: Bench press training

1. The Bench Press: Work up to 8 sets of 3 reps using three different grips all inside the rings.
2. Supplemental Exercise: Tricep movement with high intensity (two to four sets for 2 to 8 reps). The best movements are close grip bench presses, JM presses, and dumbbell or barbell extensions.
3. Accessory movements: (triceps, lats, delts)
 - This includes movements for the lats, shoulders and possibly extra tricep work. The best movements for this group include tricep extensions, rows and various shoulder raises.
4. Prehabilitation Movements: (training of the joints)
 - This includes movements for the elbow and shoulder joints. The best movements for this group include external shoulder rotations, press downs and sled dragging for two to four sets of 12 to 15 reps.

Sunday's dynamic effort bench workout begins with the same type of warm up work as on Wednesday's max effort day. The bench press is trained for 8 sets of 3 reps using three different grips utilizing the dynamic effort method. All these grips should be within the rings on a standard power bar. The bench press is trained with a smooth wave with very little fluctuation in barbell weight. For example:

Week	Percent
1	50%
2	50%
3	50%
4	50%

We've found this type of wave to be the most beneficial to the bench press. The supplemental, accessory and prehabilitation movements are trained under the same guidelines as Wednesday's maximal effort day.

Wrap up

A special note about the dynamic effort training days. Remember that the training is based upon bar speeds and the percents are used only as recommendations. Also, it's vital that 10% of all the work sets are above 90%. This simply means that after you perform your eight sets, you'll increase the weight or work up to a heavy single or double. The purpose of this is to teach you to strain in a fatigued state while the fast twitch muscle fibers are fatigued. This will teach the body to better activate the central nervous system under greater loads.

The Westside style of training may also be called *cybernetic periodization*. This basically means you'll listen to your body. As you remember with the Western method of periodization, the training percentage sets and reps are set. So what's to happen if you're sick, injured or have to miss a workout for whatever reason? This becomes a very important issue because things do happen that will effect your training program.

With the Westside system the dynamic days are based upon bar speed so if you're having a bad day, then reduce the weight and maintain the bar speed. The max effort days are based on the straining with maximal loads. So if you don't break a record because of a bad day, it's no big deal, as long as you still strained.

One other aspect about the max effort day. Pick the max effort exercise after you arrive in the gym. This way you'll apply more effort to the lift than if you pre-planned the movement and dreaded getting to the gym all day to do it. Just make sure you don't always choose those exercises that you're good at. This is, after all, about building strength and muscle, not your ego.

If you'd like to get more info from Dave Tate about consultations or products, you can contact him at Elite Fitness Systems at 888-854-8806 or EliteFTS@email.msn.com. For more info on his seminars, check out the "[seminars](#)" section of *Testosterone*.

© 1998 — 2009 Testosterone, LLC. All Rights Reserved.