The Periodization Bible
Part 1: The Old Testament — Linear Periodization
by Dave Tate

Dave Tate knows strength. Dave's been assisting and training under Louie Simmons of Westside
Barbell fame for over 10 years and has consulted thousands of athletes throughout the world.
Dave is quick to point out that he's not a bodybuilder and therefore doesn't train bodybuilders.
He's a powerlifter and a specialist in developing maximal strength. (Despite this powerlifting
emphasis, the average guy under his tutelage puts on 30 to 40 pounds in the first year.)

In this article and the one to follow, Dave will tell you everything you've ever wanted to know
about periodization.

When it comes to setting up a strength-training program, I feel it's important to understand all
aspects of the program, including how it all fits together. The organization of training can be
defined as periodization. There are several periodization models being used today for the
development of strength. This article will explore some of the basic definitions of the concept as
well as the Western (or linear) method of periodization.

The Western method of periodization is one of the most popular methods for strength
development. It's the same method I used for the first 12 years of my competitive career. Did it
work? Sure, up to a certain point, but then I hit a plateau. This was when the injuries started and
my strength began to digress. After we get the basics out of the way, I'll explore why this
happened and why so many coaches and athletes still use the program today.

Terminology and Definitions

Periodization is the organization of training into basic workable units. These units are defined as
the training session, the micro cycle, the meso cycle, the macro cycle and the quadrennial. Let's
define and explore each of these just to make sure we're all on the same page.

The Training Session: The training session consists of one workout designed to fulfill a specific
purpose. These training sessions can be once per day or up to six per day depending on the goals
of the program. The most important aspect of the training session is that it should have some type of
meaning. There should be a definite training goal in mind. Your goal for that session may be to
perform one more repetition than last time, or to lift five more pounds. Your goal could also
involve fulfilling some type of restorative or recovery purpose.

The problem is that many training sessions today don't have a specific purpose that will lead to
the short or long term goals of the athlete. The athlete or coach just goes in the gym and wings it,
but each session must build on the others to fulfill a desired purpose. For example, if you want a
bigger bench, then each training session for that lift must have the development of the bench press in mind. If your exercise selection doesn't complement this, you'll just be spinning your wheels.

All exercises chosen should fulfill a purpose related to the development of strength, stability, confidence, muscle balance, technique, or bringing up weak points. If one or more of these variables isn't being met with the chosen movement, then dump that exercise!

The Micro Cycle

The micro cycle is the recruitment of a number of different training sessions. There should be at least two training sessions per micro cycle that consist of different types of workouts. The micro cycle also should have specific meaning and purpose. There are many different types of micro cycles including the introduction, restorative, competitive and the shock micro cycle. The average micro cycle will range five to ten days with the average being seven days.

The Introduction Micro: This cycle can and should be used for a number of introduction purposes. It can be used for educational purposes to teach the clients or athletes about the training program and all its variables. This is a very important aspect of training that many coaches and trainers overlook. I believe that the client or athlete must know how the program was designed and why it was designed that way. Better yet, they should be a part of the program design.

Whenever I design a strength-training program, the client is a very large part of the process. Who knows better than the trainee what works and what doesn't work for him? The client has more experience training themselves than anyone, so why not use this knowledge to better the program? The trainee must know where they're going and how and why this program will help them get there.

A second type of introduction micro cycle may be used to introduce the trainee to the exercises he'll be performing over the next few cycles. This gives him a chance to have a "walk through" of the different exercises and get used to the correct form and technique that'll be needed for the higher intensities later on.

Exercise technique is another overlooked aspect of most training programs today. When I walk into any gym or health club I'm impressed with the lack of technique being practiced. You'd think with the number of trainers and coaches around today that this problem would be getting better, but in many ways it's worse. Now you have trainers who have no idea what they're doing showing a client how to perform an exercise!

Not all trainers are bad, of course. There are many excellent trainers I've spoken with across the world and I've learned a great deal from many of them. These trainers are usually very expensive and hard to find so it would be best for most people to buy a book on exercise technique or attend one of the many seminars offered by today's top strength coaches.
The Restorative Micro: This cycle is designed to aid in the recovery process. It can involve anything from taking a week off to implementing some restorative techniques such as contrast showers, steams, saunas, massage, active rest or "feeder" workouts.

Active rest involves those workouts that implement a type of training other than what the athlete normally does. For a weightlifter this can include walking, or for a football player, playing basketball.

The "feeder" type workouts are those intended to better prepare the muscle for an upcoming training session. When these workouts make up the majority of the training micro cycle it then becomes a restorative cycle. Active rest and feeder workouts will be discussed in a future article because of the importance they have in the total development of a strength training program. After all, if you're not recovering, then you're not making gains!

The Competitive Micro: This is the cycle leading up to the competition or event. For a powerlifter this would consists of the five to seven days right before the competition. During this time they should lower the training volume and intensity.

The week before can make or break the outcome of the competition. Too much work and the lifter will go into the meet overtrained and tired. Too little work and he'll go in under prepared. For the football player this can be the last three to six days before the game. It becomes a tight balancing act during the season to ensure the optimum amount of training with the right amount of recovery and restoration.

The Shock Micro: This micro cycle is designed around shocking the body into new growth and adaptation. This shock can come in many forms and can range from taking a week off to a high volume training cycle.

The Meso Cycle

This cycle is made up of many micro cycles designed around one specific purpose. Most programs use this cycle to develop one component of fitness such as strength, power, endurance or some other physical ability. These cycles range from one to four months. There are many types of meso cycles including introduction, base, competitive, restoration, strength and power cycles.

The Introduction Meso: This cycle is designed to introduce a person to fitness or strength training. Like the introduction micro cycle, most of the time is spent on the teaching of the movements and training program.

The Base Meso: It's been said many times that you can't build a house on a weak foundation. The base meso cycle is usually designed to build a strong and fundamental base of fitness (a solid foundation).
An example of the effectiveness of a base-building meso cycle would be my wife, Traci. When she first came to train with us a Westside, her back was so weak and sore that she had a hard time picking up an empty barbell.

Most of her training during the first few months consisted of building up her abdominal, lower back, glutes, hips and hamstrings. She performed endless sets of reverse hypers, glute-ham raises, and abdominal pulldowns. When her base was built up, heavier training was introduced and within the first year she’d totaled her fist "Elite" with a 360 squat, 240 bench, and 315 deadlift in the 123 pound class. Not bad for not being able to pick up a barbell without pain 12 months earlier. Without taking the time to develop a solid foundation, her gains wouldn't have been possible.

Other Meso Cycles: The strength and power meso cycle is designed around building strength, while the competitive meso cycle is that cycle leading up to the competition or test date (the day you attempt a new PR). These meso cycles can be designed a number of different ways and all are intended to bring out the highest level of competitive strength.

Competitive strength is different than maximal strength because it utilizes the elements of the competition to bring out the highest strength levels. With competitive strength, many times there's a break from training right before the competition to help the body restore and prepare for peak performance. There's also the element of the spectators and a "psyche up" to help bring out higher strength levels.

Maximal strength is the max level of strength that can be displayed in the gym. This is why many times we don't recommend training with a psyche-up in the gym. Psyching up during training can actually be detrimental to strength performance because of the increased demand on the central nervous system.

The Western Method of Periodization

The Western or linear method of periodization is the most practiced yet most misunderstood form of periodization used by lifters and coaches today. I was first introduced to the Western method from the NSCA journal and from the "workouts of the month" section in Powerlifting USA magazine. This method consists of a hypertrophy phase, basic strength phase, power phase, peak phase and a transition phase. Many times other terms will be used but the parameters are basically the same.

The Hypertrophy Phase: This phase is intended to condition and build muscle mass. This phase is characterized by a high volume and low intensity. In this case, the volume refers to the amount of repetitions being preformed while the intensity refers to the amount of weight lifted in relation to your one rep max. The typical load or intensity lifted is in the 50 to 70% range for three to five sets of 8 to 20 reps. The average rest between sets is two to three minutes and the average length of the entire phase is between four to six weeks. These parameters are intended to build a solid base of support for the upcoming strength phase.
The Strength Phase: The goals of the strength phase is to, you guessed it, increase muscle strength. The parameters for this phase are characterized with a typical load between 75 to 86%, utilizing three to five sets of 4 to 6 reps. The average rest is two to four minutes and the duration is four to six weeks. As you can see, the intensity is beginning to increase while the volume is beginning to decrease.

The Power Phase: This phase is designed to increase the overall power of the athlete. The parameters of this phase are characterized by performing three to five sets of 3 to 5 reps with 86% to 93% intensity. The duration of this phase is normally four weeks. The rest is usually between three to five minutes.
The Peak Phase: This is the final phase of strength development. This phase is designed to "peak" on all the abilities that have been developed earlier. The peak phase is characterized by performing two to three sets of 1 to 3 reps with 93% or more. The average rest is now increased to four to seven minutes and the duration is two to four weeks. You'll again notice that the volume is lower and the intensity is increased.

<table>
<thead>
<tr>
<th>Week</th>
<th>Sets</th>
<th>Reps</th>
<th>Intensity</th>
<th>Rest</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>4</td>
<td>87%</td>
<td>3 Minutes</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>3</td>
<td>89%</td>
<td>3 Minutes</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>3</td>
<td>91%</td>
<td>4 Minutes</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>3</td>
<td>93%</td>
<td>5 Minutes</td>
</tr>
</tbody>
</table>

The Transition or Active Rest Phase: This is the final phase of this macro cycle known as the Western method of periodization. This phase can be done a couple of ways. The first is to perform three to five sets of 10 to 15 reps with 50% of your new one rep max.

The second way is to break away from training altogether and only perform light physical activity. For many powerlifters and strength athletes this phase is normally just taking time off and performing no weightlifting. Others may choose to go to the gym and perform bodybuilding style exercises with very little work done in the classic lifts (squat, bench and deadlift).

Problems and Pitfalls

This Western method of training has become very popular in the United States over the past 20 to 30 years and has been practiced by most powerlifters and strength athletes in one form or another. If you read the training programs of most powerlifters you'll notice this same structure. As I mentioned earlier, this is the same training routine I used myself for 12 years before moving to Columbus to train at Westside. I had very good results with this training for some time, but I
also had many problems with it as well.

Having now gotten away from this type of training and looking back as an outsider, I can see where the program is lacking and why I had so many problems. I used to feel it was the only way to train (mostly because it was all I ever knew). It was also the only type of program for which I could find a lot of research. Some of the limitations to this linear style of periodization include:

- It's a percentage-based program
- It starts with a high volume
- It only has one peak
- Your abilities aren't maintained
- The program has no direction to the future

Since this is a percentage based program, it can be very deceiving to those calculating the training. I'll use the example of a 600 pound squatter. A 17 week cycle may look like this:

<table>
<thead>
<tr>
<th>Week</th>
<th>Sets</th>
<th>Reps</th>
<th>Intensity</th>
<th>Weight</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5</td>
<td>10</td>
<td>62%</td>
<td>372</td>
<td>18600</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>10</td>
<td>64%</td>
<td>384</td>
<td>15350</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>10</td>
<td>66%</td>
<td>395</td>
<td>11880</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>8</td>
<td>68%</td>
<td>408</td>
<td>9792</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>8</td>
<td>70%</td>
<td>420</td>
<td>10080</td>
</tr>
<tr>
<td>6</td>
<td>4</td>
<td>6</td>
<td>75%</td>
<td>450</td>
<td>10800</td>
</tr>
<tr>
<td>7</td>
<td>3</td>
<td>6</td>
<td>77%</td>
<td>462</td>
<td>8316</td>
</tr>
<tr>
<td>8</td>
<td>3</td>
<td>5</td>
<td>79%</td>
<td>474</td>
<td>7110</td>
</tr>
<tr>
<td>9</td>
<td>3</td>
<td>5</td>
<td>82%</td>
<td>492</td>
<td>7380</td>
</tr>
<tr>
<td>10</td>
<td>3</td>
<td>5</td>
<td>85%</td>
<td>510</td>
<td>7650</td>
</tr>
<tr>
<td>11</td>
<td>3</td>
<td>3</td>
<td>87%</td>
<td>522</td>
<td>4698</td>
</tr>
<tr>
<td>12</td>
<td>3</td>
<td>3</td>
<td>89%</td>
<td>534</td>
<td>4806</td>
</tr>
<tr>
<td>13</td>
<td>3</td>
<td>3</td>
<td>91%</td>
<td>546</td>
<td>4914</td>
</tr>
<tr>
<td>14</td>
<td>2</td>
<td>3</td>
<td>93%</td>
<td>558</td>
<td>3348</td>
</tr>
<tr>
<td>15</td>
<td>2</td>
<td>3</td>
<td>95%</td>
<td>570</td>
<td>3420</td>
</tr>
</tbody>
</table>
As you can see, the intensity begins at 62% and finishes at 99%. My question has always been: Percent of what? In the table we used a 600 pound squatter as an example. Now the first question is since there's a difference between competitive strength and maximal strength, can he really squat 600? Second, if the lifter takes a break after the competition as described with the transition phase, can he still squat 600?

According to Vladimir Zatsiorsky in the text, *Science and Practice of Strength Training*, long breaks (from working at percentages close to your 1RM) can ruin physical fitness. Vladimir asks, "If a mountaineer wants to climb to the summit, will he climb halfway up then back down to go back up again?" These long breaks are detrimental because motor abilities are built and retained at different rates which are fairly specific to each individual. Some may be lost very quickly while others will be held.

According to Zimkin, as much a 10 to 15% of strength can be lost in a period of a few weeks. This is where a percentage-based system has many problems. If the lifter has lost 10% of his strength and begins the cycle at 62% of his contest max, the actual percent can really be as high as 72%. This is why many times the lifter will get through three quarters of the training cycle and then start missing lifts. Many times I'd get to week eight or nine and not be able to complete the desired number of reps. With this type of training you have to hope your strength catches up to the intensity.

One way to combat this is to pick a smaller weight at the start and then jump it up toward the end. This is what many lifters, including myself, used to do. The problem with this is you never really know when to jump it up. This will lead you to being able to perform triples in training with more weight than the single you could perform on the platform at a meet. Percentages have to be used only as guidelines.

Another problem with the Western method of periodization is that many abilities aren't maintained. The muscle mass that was built during the hypertrophy phase isn't maintained throughout the full cycle. Same goes with the strength phase. The best training weeks are normally the first or second week of triples coming off the strength phase. Then your strength begins to shut down because it's very hard to train at or above 90% for longer than three weeks. This is another reason why you may be able to triple more in training than what you can display on the platform.

As mentioned above, there's only one peak with the linear method. If you want to enter multiple meets or have a competitive season such as a football player then what do you do? Another mark against this traditional approach.

The Western method of periodization also advises you to drop the supplemental movements as
the meet approaches, especially during the final three or four weeks during the peak phase. The reason for this is that the intensity is so high that you'd want to keep the volume down. My question is why would you want to drop the movements that made you strong in the first place?

Lets face it, if it was true that all you have to do is squat, bench and deadlift wouldn't we all be doing it? Not only that, but wouldn't every gym in the country have 20 or 30 guys who could bench 500 since half the members only do bench presses and curls anyway? Why would any of us do any more than we have to?

The fact is, we've all found out through trial and error that we need supplemental movements to push our lifts up. A great example of this is if your pecs and shoulder were strong enough to bench press 500 but your triceps were only strong enough to bench 420. If that were true, what do you think you'd bench? You're only as strong as your weakest link and it's your responsibility to find out what that weak link is and fix it. If your car needed new tires to run faster would you buy a new car or change the tires? The supplemental aspect of your training is perhaps the most important and yet you're expected to drop it right before a competition?

You're also never really told what and how to train the supplemental lifts. Are you supposed to begin with a high volume and drop over time while increasing the intensity like you do with the main lifts? If you're anything like I was then you just kind of wing it and hope it all fits into place.

With all this in mind, why would anybody use this type of periodization? Well, the answer is quite simple: it's what most lifters have always done or been told to do. There have been few, if any, alternatives that work as well or better. Until now, that is.

At Westside Barbell, we've found a better way to handle periodization and it blows the old school linear method out of the water. We call it conjugated periodization and I'll cover it in detail in my next article. Get ready to pop a few new PRs!

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.

Westside Weekly Training Schedule

If you want to start using the periodization program outlined in this article, you might want to know how the Westside boys break up their actual weekly training. They typically do four workouts per week and since they train for function, they typically perform the following split:

- **Monday**: Max effort lower body day (squat, dead lift)
  1. Hamstrings
  2. Lower back
3. Abs
4. Possible upper back work

Wednesday
Max effort upper body (bench press)
1. Triceps
2. Delts
3. Lats

Friday
Dynamic effort lower body (squat, dead lift)
1. Hamstrings
2. Lower back
3. Abs
4. Possible upper back work

Sunday
Dynamic effort upper body (bench press)
1. Triceps
2. Delts
3. Lats

Most body parts are trained 2 times a week, but this isn't absolute as there are times when they may train a body part up to 6 times per week and other times, only once.

Dave will write about this a little more in a future article.
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:

<table>
<thead>
<tr>
<th>Exercise</th>
<th>Sets</th>
<th>Reps</th>
<th>Weight</th>
</tr>
</thead>
</table>

*Floor Press*  

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>5</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>95</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>3</td>
<td>135</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>3</td>
<td>185</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>3</td>
<td>225</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>3</td>
<td>275</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>315</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>365</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>405</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>425</td>
<td></td>
</tr>
</tbody>
</table>

*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*...
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 overstraining. (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
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

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Load (Intensity)</td>
<td>60 🎯 80%</td>
</tr>
<tr>
<td>Number of Exercises</td>
<td>All Supplemental and accessory</td>
</tr>
<tr>
<td>Sets / Repetitions</td>
<td>5-8 / 6 - 15</td>
</tr>
<tr>
<td>Rest Interval</td>
<td>1 to 3 minutes</td>
</tr>
<tr>
<td>Frequency / Week</td>
<td>All workouts</td>
</tr>
<tr>
<td>Weeks per Exercise</td>
<td>1-5</td>
</tr>
</tbody>
</table>

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 Verkeshonksky 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.
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:

<table>
<thead>
<tr>
<th>Exercise</th>
<th>Sets</th>
<th>Reps</th>
<th>Weight</th>
<th>Rest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Box Squats</td>
<td>2</td>
<td>2</td>
<td>135</td>
<td>1 min</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>225</td>
<td>1 min</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>315</td>
<td>1 min</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>405</td>
<td>1 min</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>2</td>
<td>455</td>
<td>1 min</td>
</tr>
</tbody>
</table>

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.

Here's a sample dynamic bench workout:

<table>
<thead>
<tr>
<th>Exercise</th>
<th>Sets</th>
<th>Reps</th>
<th>Weight</th>
<th>Rest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bench Press</td>
<td>2</td>
<td>5</td>
<td>45</td>
<td>1 min</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>3</td>
<td>135</td>
<td>1 min</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>3</td>
<td>185</td>
<td>1 min</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>3</td>
<td>225</td>
<td>1 min</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>3</td>
<td>275</td>
<td>1 min</td>
</tr>
</tbody>
</table>

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. Prehabilation 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. Prehabilation 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

a. One lower back movement: The best exercise for this purpose is the reverse hyper performed for three to four sets of 8 reps.

4. Prehabilation 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:

<table>
<thead>
<tr>
<th>Week</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>60%</td>
</tr>
<tr>
<td>2</td>
<td>63%</td>
</tr>
<tr>
<td>3</td>
<td>66%</td>
</tr>
<tr>
<td>4</td>
<td>70%</td>
</tr>
</tbody>
</table>

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. The box squat is trained using 8 sets of 2 reps. The supplemental, accessory, and prehabilation 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:

<table>
<thead>
<tr>
<th>Week</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>50%</td>
</tr>
<tr>
<td>2</td>
<td>50%</td>
</tr>
<tr>
<td>3</td>
<td>50%</td>
</tr>
<tr>
<td>4</td>
<td>50%</td>
</tr>
</tbody>
</table>

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.