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CrossFit Strength Training

Louie Simmons explains the finer points of the training principles he employs at the legendary Westside Barbell in Columbus, Ohio.

By Louie Simmons

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While experts like Tudor O. Bompa, Y.V. Verkhoshansky and others call for a yearly or multi-year plan, they were concentrating on training for an Olympic competition, which occurs every four years. Westside speed-strength cycles, or waves, are integrated throughout the yearly plan as absolute strength building on max-effort day, hypertrophy work, and on the dynamic day for speed strength, using the repetition method on small exercises. There are countless sports but only three methods of strength training, as mentioned above.

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Strength Training ... (continued)

Westside breaks training into three-week waves. After three weeks, you will not gain strength or speed using the same method. The goal of training is adaptation, but just at the time adaptation occurs, a poor training result can interfere with training. This is known as accommodation, a biology law that states a decrease in training effects will occur.

To eliminate accommodation, the three-week pendulum wave must be used. The percentages of a one-rep max and the volume must change. Major exercise must rotate. Squat, bench, clean, snatch and jerk exercises must change. Accommodating resistance methods must change via the use of chains, bands and lightened methods. Inside that, the amount of accommodating resistance must also change. This means more or less chains, more or less bands, or more or less weight reduced in the bottom by the lightened method. When squatting and benching, you can change the stance and grip, respectively.

Westside lifters always box squat for all training. On Friday (dynamic-effort day), we do multiple sets of squats at a predetermined weight. The rest between sets should be kept at 60 seconds. This will keep fitness at a high level—a must for the CrossFit society. The percent will vary from 50 to 55 to 60 in a three-week wave.

In a recent *CrossFit Journal* video, [Louie Simmons on the Conjugate System: Part 1](#), I spoke about using percentages from 75 to 80 to 85 on dynamic day. Those are used when calculating your weight off a box-squat record only. When calculating off a contest squat record, the percentages are 50 to 60 to 65.

On the fourth week, the percent will rotate back to 50, but this time the amount of chain or band resistance is changed, or a back squat is changed to a front squat or an overhead squat. All of us have an absolute max to determine the weight to use.

Table 1: Different training loads at 50 percent 1RM.

Max	Percent (%)	Weight (pounds)
500 back squat	50	250
350 front squat	50	175
250 overhead squat	50	125

This will change the total volume at the same percentage, which prevents accommodation, as mentioned earlier. The percent is the same, the bar speed is the same, but the volume is changed considerably. This is essential. Finish with two or three exercises for squatting.



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By changing resistance, stance, bars, grip and more, you can prevent training plateaus.

For bench speed strength, the dynamic method is used on the weekend. The development of force (force = mass x acceleration) is the purpose of this workout. Nine or more sets of 3 reps are performed very explosively, with 60 seconds of rest between sets. This is interval training, just like speed squatting: a predetermined amount work with a predetermined amount of rest. Always use bands or chains on the bar, and use three grips: index finger touching the smooth part of the bar for 3 sets, 2 inches out from there for 3 sets, and little finger touching the power ring for 3 sets. All three grips heavily involve the triceps. They are the most important bench muscles. Lats and upper back follow after triceps.

Table 2: 200-lb. max bench for nine-week wave.

Week	Percentage	Weight	Reps	Amount of chains or bands
1	50	100 lb.	12x3	40 lb. chains
2	50	100 lb.	12x3	40 lb. chains
3	50	100 lb.	12x3	40 lb. chains
4	50	100 lb.	12x3	80 lb. chains
5	50	100 lb.	12x3	80 lb. chains
6	50	100 lb.	12x3	80 lb. chains
7	50	100 lb.	12x3	85 lb. bands
8	50	100 lb.	12x3	85 lb. bands
9	50	100 lb.	12x3	85 lb. bands

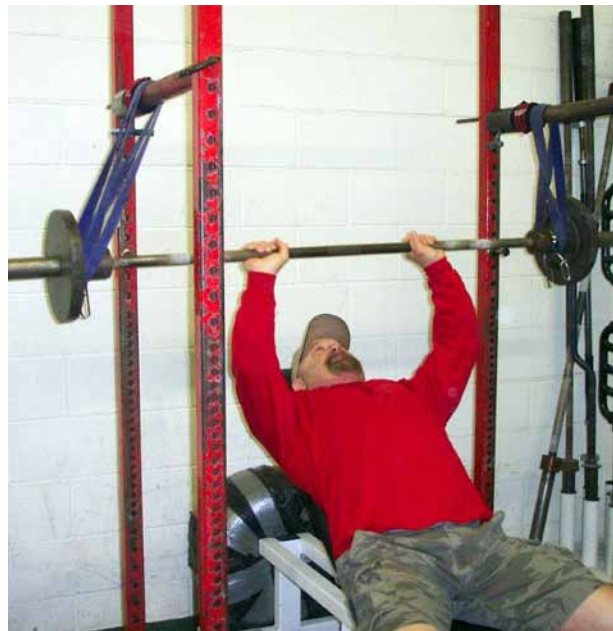
Speed Pulls

Speed pulls are done immediately after speed squats, on dynamic-effort day. You must pick one: power clean or power snatch or sumo or conventional deadlift. The percentage for clean and snatch will be 65-75 for 6-12 sets of 2 reps. Always pause the second rep. Keep the rest between sets to 60 seconds. The deadlift percentages should range between 60 and 70. The squat and deadlift sets should only take 30 minutes including warm-ups. After squat and deadlift speed work, choose from glute/ham raises, reverse hyper machine or back raises. Use two per workout. You can substitute sled pulls or push a sled for 6-8 trips of 60 yards. Always stretch after all workouts.

**Table 3:
Speed-squat workout for a 400-lb. max squat.**

Week	Percentage	Weight	Reps	Bands
1	50	200 lb.	12x2	70 lb.
2	55	220 lb.	12x2	70 lb.
3	60	240 lb.	10x2	70 lb.
4	50	200 lb.	12x2	140 lb.
5	55	220 lb.	12x2	140 lb.
6	60	240 lb.	10x2	140 lb.
7	50	200 lb.	12x2	140 lb. plus 40 lb. chains
8	55	220 lb.	12x2	140 lb. plus 40 lb. chains
9	60	240 lb.	10x2	140 lb. plus 40 lb. chains

After squatting, do pulls.



Courtesy of Westside Barbell

Simmons demonstrates the "lightened method" for changing the dynamics of an exercise.

Courtesy of Westside Barbell



Supplemental exercises are based on an analysis of the lifter and are designed to eliminate weaknesses.

Table 4: Speed pulls for a 500-lb. max.

Week	Percentage	Weight	Reps	Bands
Sumo Pulls				
1	55	275 lb.	12x2	170 lb.
2	55	275 lb.	10x2	170 lb.
3	55	275 lb.	8x2	170 lb.
Conventional Pulls				
4	55	275 lb.	12x2	170 lb.
5	55	275 lb.	10x2	170 lb.
6	55	275 lb.	8x2	170 lb.
Extra-Wide Sumo				
7	55	275 lb.	12x2	170 lb.
8	55	275 lb.	10x2	170 lb.
9	55	275 lb.	8x2	170 lb.

Table 5: Power cleans for a 300-lb. max for a nine-week wave.

Week	Percentage	Weight	Reps	Bands/chains
1	70	210 lb.	12x2	Use 40 lb. of bands or chains over bar
2	75	225 lb.	10x2	
3	80	240 lb.	8x2	
4	70	210 lb.	12x2	
5	75	225 lb.	10x2	
6	80	240 lb.	8x2	
7	70	210 lb.	12x2	
8	75	225 lb.	10x2	
9	80	240 lb.	8x2	

Table 6: Workout for a 200-lb. power snatch.

Week	Percentage	Weight	Reps	Bands/chains
1	70	140 lb.	12x2	Use 40 lb. of chains
2	75	150 lb.	10x2	
3	80	160 lb.	8x2	
4	70	140 lb.	12x2	
5	75	150 lb.	10x2	
6	80	160 lb.	8x2	
7	70	140 lb.	12x2	
8	75	150 lb.	10x2	
9	80	160 lb.	8x2	

Max Effort

Explosive squat and deadlift work is performed on Friday, and max-effort work on Monday. Extreme workouts can occur every 72 hours. The same goes for benching or pressing. Speed work for the bench is Sunday, and max-effort day is Wednesday. Let's look at a nine-week speed-strength cycle for the bench, squat and pulling, broken into three three-week pendulum waves.

Max-Effort Day

Any of the following can be done on this day:

1. Floor press to max for 3 reps.
2. Incline press to max for 3 reps.
3. Power-rack lockouts 4 inches off chest for a single.
4. High-rep dumbbells, incline or decline, flat or seated.
5. Ultra-wide max for 6 reps.
6. Seated press for a 3-rep max.
7. Lightened bench with medium bands for a 3-rep max.
8. High-rep dumbbell work, flat or seated.
9. Close-grip max for 6 reps.

Finish with roughly 5 sets of triceps extensions, upper-back work, dumbbell power cleans, lat work, rear- and side-delt work, and hammer curls. Change special exercises when needed. Any workout should last no more than 40 minutes. Constantly rotate speed work and max-effort workouts, and you will make progress for years to come.



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Adding bands to a deadlift completely changes the movement.



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On dynamic-effort day, benchers work to move the bar as fast as possible in sets of three.



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Laura Phelps-Sweatt, a top-ranked powerlifter, demonstrates yet another way to train the squat.

Pulling on Max-Effort Day Deadlift

1. Bent-over good mornings for a max of 3 reps.
2. Rack pull 2 inches off floor for max 1 rep.
3. Low box squat (close stance) for max 1 rep.
4. Ultra-wide sumo for max 1 rep.
5. Overhead squat for 3-rep max.
6. Power-clean and power-snatch max.
7. Power clean standing on 4-inch box.
8. Front squat on low box for 2-rep max.
9. Power snatch for close grip for a 3-rep max.

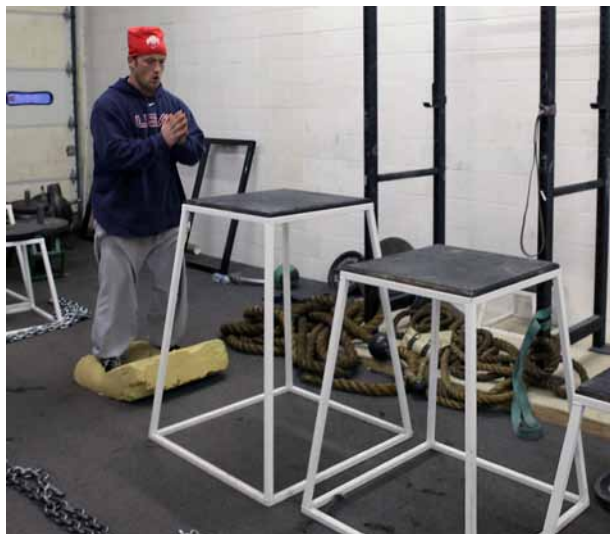
Power-Clean and Snatch Max Effort

1. Power clean with bar just below knee.
2. Straight-leg snatch.
3. Arch-back good morning, rising up on toes.
4. Close-grip snatch with straight legs.
5. High pulls with bands over the bar.
6. Push jerk off racks.
7. Power snatch standing on 4-inch box.
8. Power snatch with bar just above knees.
9. Overhead squat with clean or snatch grip.



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You can use rope for this exercise, but chains present an additional challenge.



Box jumps help build the explosive power that complements raw strength.

Special Exercises

1. 45-degree back raise.
2. Inverse curls on glute/ham bench.
3. Back raise.
4. Reverse hyper machine.
5. Concentric squats.
6. Low box squat with a wide stance.
7. Belt squats.
8. Front squat onto foam blocks.
9. Concentric good mornings.
10. Combo clean, squat, press, front squat for 1-3 minutes continuously.
11. Box jumps.
12. Sled pulls.
13. Kettlebell swing, clean and press.

Pick a pull of your choice after the squat workout and speed day, plus 2 or 3 special exercises for lagging muscle groups. On max-effort day, choose one main barbell exercise and add 2 or 3 special exercises.

You cannot have just a block of time during the year to do explosive weight training. It must and can be done during the entire year. A series of training blocks of hypertrophy

work, speed work and absolute-strength work will lead to detraining when one block expires as a different phase begins.

For more information, look at www.westside-barbell.com for books, DVDs and articles. You can also e-mail or talk to Louie on the phone.

About the Author

Louie Simmons has been involved with powerlifting for over 40 years. Over that time, he's produced world and national powerlifting champions, and he's worked with Olympic gold medalists and professional athletes. Simmons himself is one of only a handful of lifters to total elite in five different weight classes. He has squatted 920 lb. and totaled 2,100 lb. over the age of 50. He's overcome two broken backs and a multitude of torn tendons and muscles, and he's patented several powerlifting machines. On Dec. 5, 2009, he competed at 220 lb. and achieved a 730 squat, 455 bench and 670 deadlift, which made him an elite again. For more info, visit the [Westside Barbell website](http://www.westside-barbell.com).

