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## Conjugate CrossFit

The conjugate system is a cornerstone of Westside Barbell training. Chris Mason suggests ways for CrossFitters to incorporate the method into a CrossFit program.

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My introduction to CrossFit was at Louie Simmons' first Powerlifting Certification at Westside Barbell in Columbus, Ohio. In all honesty, the CrossFitters very much surprised me, and they were not what I had expected.

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My idea of CrossFit prior to getting involved was that CrossFitters were akin to distance runners; i.e., small individuals with great endurance. Suffice it to say that after the first cert, my opinion was very much changed. I discovered the true efficacy of the program and what amazing overall athletes it helped to forge.

The Powerlifting Certifications also served to illustrate to me that most CrossFitters, even those at a high level competitively, were in my opinion relatively lacking in absolute strength. No, I did not think them weak; quite to the contrary. They were much stronger than I had anticipated, but compared to their development in other physical aspects—such as strength endurance, endurance, flexibility and mobility—their absolute strength was relatively poor.

It is an immutable fact that an increase in absolute strength for any CrossFitter would make him or her a better CrossFitter assuming said strength is not accompanied by a big increase in total body weight (or a detraining effect on endurance or strength endurance). Simmons' Westside system of strength training is for my money the most effective strength-building system ever developed.

That said, CrossFit is its own modality with specific goals: "Our specialty is not specializing. Combat, survival, many sports, and life reward this kind of fitness and, on average, punish the specialist." It is not realistic to expect a CrossFit practitioner to adopt the Westside system wholly and fully because he or she would, by definition, no longer be a CrossFitter. So, the question is how to incorporate some of Louie's principles into a CrossFit-based program, and it is a question I've carefully considered since that first certification.



*CrossFitters such as Dave Lipson (squatting) are very strong, but Chris Mason believes all CrossFitters could benefit from more strength if it doesn't decrease performance in any other areas.*



*Strength certainly came in handy in the 2009 CrossFit Games, where competitors were faced with a series of heavy deadlifts in the second event.*

To be clear, the ideas presented in this article are therefore not Westside ideas. Westside is a unique system developed by Louie Simmons, and it is a system he does not believe in altering or bastardizing in any way. The training methods and techniques presented here are therefore snippets of the total Westside system, from which I am borrowing in order to help CrossFit practitioners continue to build their CrossFit abilities while simultaneously increasing their absolute strength. The ultimate goal, of course, is improved CrossFit performance.

### **Conjugate System and Max-Effort Work**

One of the cornerstones of Westside is the conjugate system. Those who know of the conjugate system most commonly understand it to be a method that utilizes a frequent rotation of exercises or variations of said exercises (changing the bar, stance, hand placement and range of motion; using varying accommodating resistance devices; and so on) in order to preclude neural overtraining and work on weaknesses. They are correct, but that is only part of the story.

The conjugate system also creates a chaotic form of periodization. The periodization is one of volume. The use of different exercises to work the same body parts forces a variation in total training volume primarily by virtue of the fact that different exercises dictate different training loads. What one can back squat is very different from what one can front squat, and so on. Therefore, performing both movements for a similar number of sets will result in a varied amount of total training volume.

Another Westside staple is the maximum-effort (ME) day. ME training involves a progressive warm-up to a maximum single attempt (1RM). ME work combined with conjugate variety is, in my opinion, what makes the Westside system unrivaled in its ability to build absolute strength. It allows Westside practitioners to train at a 100 percent intensity level virtually year round. No other system allows for this frequency of heavy training, and if all other factors are equal, the individual who trains heavy the most often will develop the most strength.

### Overtraining

I have seen other articles and posts online where individuals have attempted to incorporate the entire Westside protocol into a CrossFit regimen. This, in my opinion, is a mistake. Both training disciplines are extremely physically and mentally taxing. An attempt to do both in entirety is a surefire recipe for overtraining.

Overtraining of the nervous and skeletal muscular systems is highly correlated to both training intensity (defined as a percentage of one's 1RM) and total training volume. Increased training intensity requires decreased volume lest neural overtraining occur. High-volume training, even at a low-to-moderate intensity level, can lead to skeletal-muscular overtraining in relatively short order. Much CrossFit training (met-con) falls into the low- to moderate-intensity range, while a significant percentage of Westside training is of a very high-intensity variety. The combination of both programs in their entirety would therefore quickly lead to stagnation at best, and both neural and muscular overtraining and subsequent regression in development at worst.

### Exclusion of Dynamic-Effort Work

Those familiar with Westside have likely also heard the term "dynamic effort" (DE). This facet of the Westside program is also known as "speed work." DE days use relatively light loads (typically 50-60 percent intensity) moved for 2-3 repetitions as quickly as possible. The primary goal of DE training is to teach the nervous system how to be more explosive.

As per Simmons, the advent of the DE day was due to the inability of most trainees to tolerate two ME days (two upper and two lower) per week. The DE days were thus initially incorporated as a less-intense training session or, to say it another way, as a type of active recovery. While DE days are less intense, Simmons still considers them to directly aid strength training via their ability to build explosive power, which he feels translates directly to 1RM lifts.

This point is where my opinion definitely varies from Louie's (at least with respect to my understanding of his stance on the matter). I feel the primary value of DE days for strength trainees is the aforementioned active recovery that aids both the muscular and nervous systems. I believe the speed work translates very minimally to absolute strength

expression beyond those benefits. This line of thinking combined with the need for economy of total training volume was the main reason I decided not to incorporate DE days into my hybrid system.

Additionally, it was, and still is, my feeling that most CrossFit met-cons can serve a very similar function to DE days in the way they support ME strength training with the added benefit of building one's general conditioning.



*Chris Mason's system has athletes lifting heavy and forgoing dynamic work in favor of CrossFit met-cons.*

### The System

OK, so we are finally to the system. How does that principle go? Keep it simple, stupid? The basic template of my hybrid system is indeed very simple. Two ME days (one upper and one lower) are performed each week. They are to be separated by 72 hours. Three additional days per week are set aside for more or less standard CrossFit met-cons. The only caveat on the met-cons is this: those that involve lower repetitions or heavier loads are avoided during the program.

The ME days include assistance work. This assistance work incorporates isolation exercises. While isolation movements are normally eschewed in the CrossFit world, they are absolutely necessary for optimizing maximal strength. This is due to a couple of factors. First, the very nature of compound movements, the physics involved, and the individual's anatomy and physiology dictate that for every athlete, certain muscles will be the limiting factor(s) for demonstrable strength. For example,

your unique anatomy and physiology may be such that your triceps are the limiting factor when you attempt a 1RM press. Without specific triceps work, you will never realize your true pressing potential. Along similar lines, isolation exercises also allow for a greater overload of the targeted muscle(s).

The primary exercise for upper or lower ME sessions will be rotated every fourth week. This is another major variance from the standard Westside system. The reasoning behind this change is simply one of adaptation to the target audience. No CrossFitter alive has developed his or her strength to such a level that weekly variation of ME exercises is required. In fact, weekly rotations would be excessive in my opinion and would not allow for the neural adaptations of increased efficiency at recruiting motor units and optimizing firing sequences. These adaptations result in the ability to place greater stress on the skeletal muscular system, thus making a given exercise more effective.



*In Mason's system, two days involve maximum effort on heavy lifts, while three days are set aside for met-con work and more traditional CrossFit workouts.*



***Mikko Salo has an impressive combination of strength, power and endurance. Conjugate training might be one way for CrossFitters to move their numbers to Salo's level.***

That said, after three weeks the possibility of overtraining from performing the same movement at 100 percent intensity becomes very real, even for less-developed athletes (in terms of absolute strength), and thus the switch on the fourth week.

Assistance exercises will be varied, but not in the same regimented fashion due to the fact they are performed at much lower intensity levels (repetition ranges from 8-20 plus).

Below you will find a specific nine-week exercise template for the ME days. This is supplied for those who will not create their own program. There is also a listing of several exercises from which to choose for both primary and assistance work, and I encourage everyone reading this article to take the basic template and use the exercise list

to create a unique program. This will allow you to address your individual weaknesses. Only then will you reap the full benefits of the template.

This article will not discuss the CrossFit met-con days beyond the aforementioned caveat that they do not include heavy, low-repetition movements. And a word of caution: keep the total volume reasonable. In other words, choose your WODs carefully and train them with great intensity of effort, but do not do work above and beyond them.

### **Exercises**

The exercises listed below are those that can be performed at most CrossFit boxes (with the possible exception of those done with dumbbells; kettlebells can be substituted in some cases).



*Maxing out on a wide variety of squats is one of the keys of conjugate training.*

### Primary Exercises

#### Upper

Standing strict press  
Push press  
Bench press  
Incline press  
Floor press  
Board press  
Press from pins

#### Lower

Free squat  
Box squat  
Front squat  
Good morning  
Deadlift from floor  
Rack deadlift  
Deficit deadlift  
Zercher deadlift

All the above exercises have multiple variations via the use of different bars, hand placements, and rack positions (as in performing partials), as well as the addition of bands and/or chains. More variations exist if you can make substitutions with dumbbells. The number of variations is really only limited by the imagination of the trainee.

#### Assistance Exercises

Assistance work sets should be taken to or very near to concentric failure (perhaps 1-2 reps short).

#### Upper

Dumbbell press  
Weighted dip  
JM press  
Tate press  
Skullcrusher  
Triceps pressdown (with machine or band)  
Dumbbell triceps rollback  
Bent-over row (elbows held in line with shoulders and barbell pulled very high on chest)  
Dumbbell row  
Barbell T-bar row  
Face pulls  
Upright row

### Lower

Glute-ham raise

Glute bridge

Hamstring curl (with bands)

Hyperextension

Stiff-legged deadlift

Standing hyper with band over neck

Sled work

Reverse hyper

I will leave ab exercises to the discretion of the trainee. There are a myriad of them. Pick one per ME session.

### Template Routine With Exercises

The sets listed below for assistance work are working sets. These sets may be preceded by 2-3 warm-up sets if required.

#### Upper (Weeks 1-3)

Standing strict press (ME exercise)

Seated dumbbell press: 2 x 15 reps

JM press: 2 x 10

Triceps pressdown (you can use a band for these; choke it up enough to make 10 reps very hard): 2 x 10

Barbell row (row to nipple level, keeping elbows perpendicular to your body; this will work the upper back very effectively): 2 x 10

Ab work of your choice: 2 x 15-20 reps



*By rotating lower-body exercises, you can avoid overtraining. A front squat taxes the nervous system very differently than a back squat.*



### Lower (Weeks 1-3)

Squat (ME exercise)

Glute-ham raise: 2 x as many as possible

Glute bridge (off bench): 1 x 20

Ab work of your choice: 2 x 15-20

Heavy sled pull: 3 rounds of pulling for roughly 100 feet (allow 1 minute between rounds; be sure the sled weight is heavy but not ridiculously so; try to increase the load 10 lb. per session)

### Upper (Weeks 4-6)

Incline bench press (ME exercise)

Flat dumbbell press: 2 x 15

Dumbbell Tate press: 2 x 10

Dumbbell rollback: 2 x 10

Single-arm dumbbell row: 2 x 10

Ab work of your choice: 2 x 15-20

### Lower (Weeks 4-6)

Box squat (with strong bands) (ME exercise)

Deficit deadlifts (off a 4-inch or so box): work up to a heavy set of 5

Ab work of choice: 2 x 15-20

Heavy sled work (same as above)

### Upper (Weeks 7-10)

Bench press (ME exercise)

Incline dumbbell press: 2 x 15

Close-grip bench press (hands just outside the smooth portion of the bar): 2 x 10

Triceps pressdown: 2 x 10

Curl-grip barbell row: 2 x 10

Ab work of your choice: 2 x 15-20

### Lower (Weeks 7-10)

Squat (with strong bands) (ME exercise)

Olympic squat (narrow stance as deep as possible; be sure to control the movement all the way up and down): 1 x 15

Reverse hyper: 3 x 10

Ab work of your choice: 2 x 15-20



*The conjugate system is designed to systematically eliminate the weaknesses that are preventing your numbers from increasing.*

### Go Heavy, Get Strong

This general template and system should be used at least once a year by every CrossFitter wanting to get the most out of his or her training. Absolute strength is a component of fitness that should not be relegated to also-ran status in anyone's overall fitness regimen. It will aid you now, and with continued work it will help to improve your quality of life even into your later years. Give this program a go—you won't regret it.

If you have any questions please feel free to ask them in the comments sections of the *Journal* or on the [CrossFit Message Board](#).



### About the Author

*Chris Mason is the co-owner of [AtLarge Nutrition](#). Chris has been involved with bodybuilding and powerlifting for over two decades. He is an accomplished writer in the genre, having published articles in **Athlete**, **Planet Muscle**, **Ironman** and **Powerlifting USA** magazines, as well as online. You can view several of his articles on his website [WannaBeBig.com](#). Chris currently resides in Charlottesville, Va., and makes monthly treks to Ohio to train at [Westside Barbell](#) with Louie Simmons. He is also a member of Louie's team for CrossFit Powerlifting Certs.*