



Where was this information when I started???

You know, a lot of our readers will only skim this edition. After muttering “isn’t that interesting,” many of readers will toss this edition aside or line the bird cage with the paper.

Wrong. Mistake. Don’t.

Take the time to read Steve Shafley’s insights into “Conjugate Periodization.” Sure, big words...lots of links...but, Steve has provided a gift to the lifting and throwing community that demands careful distribution and discussion.

This is a brilliant summary and should provide our readers with an entirely new way to look at planning training blocks.

The problem for the editorial board is simple: how do we improve on this next issue?

Our mission? To teach everyone:

1. The Body is One Piece
2. There are three kinds of strength training:
 - Putting weight overhead
 - Picking it off the ground
 - Carrying it for time or distance
3. All training is *complementary*.

THE BASICS BEHIND CONJUGATE PERIODIZATION

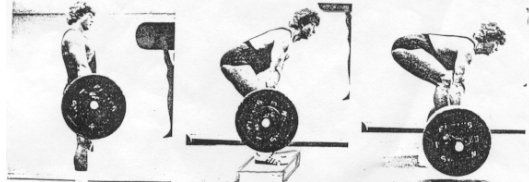


Steve Shafley
Steve Shafley is one of the first people I “met” when I came on to the Internet. Steve has a background in rugby and powerlifting and strongman and... Enjoy!

The organization of strength and power training is one of the most potentially powerful tools in an athlete's tool box. If it's done right, you

will be properly prepared for your chosen sport, having made improvements where you needed them. If it's done wrong, then it could be potentially disastrous. One of the most powerful and adaptable models for the organization of training, or periodization, is the conjugate model, or, if you follow internet lifting trends, the Westside Barbell Club model, popularized by Louie Simmons in the Powerlifting USA magazine and at <http://westside-barbell.com> and by Dave Tate at

<http://www.elitefts.com>. Unfortunately, trainees who lack a complete understanding of the basics often make big mistakes in using conjugate periodization, which can lead to regression or even injuries.



Conjugate Periodization involves a concurrent training of several motor abilities or a wide multi-lateral skill developmental approach. In layman's terms, you train multiple qualities at once. The Westside model is specifically designed to improve a powerlifter's equipped lifts, most specifically, the squat and the bench press. These two lifts are the ones most affected by supportive equipment choices. Always keep in mind that the lifters from the Westside Barbell Club



lift in organizations that allow unlimited supportive equipment, and that this will dictate exercise choice.

Let's digress here and look at the list of potential strength qualities to be trained.

1. **Maximal Strength:** The ability to move the heaviest possible weight for one repetition. That is a good working definition of maximal strength. Almost every other strength characteristic falls out of maximal strength. An example: If you can bench press 300 pounds, then multiple repetitions (10-12 reps) with 280 pounds is out of the question. However, if you can bench press 400 pounds, then 280 pounds for reps is entirely possible. Greater maximal strength can directly affect strength-endurance.

2. **Strength-Endurance:** Strength endurance is the ability to perform a lengthy display of muscular tension with a minimal loss of work capacity. Strength-endurance is very specific to the type of work being done. Training to failure is an effective way to train for improved strength-endurance, as long as the proper percentages are maintained.

3. **Speed Strength:** Speed strength is the ability to move heavy weights as fast as possible. In the Westside template, the dynamic days are devoted to improving speed-strength, but, like strength-endurance, the maximal strength one can exhibit directly affects

speed-strength. For example: A 400 pound bench presser should be able to bench 225 pounds faster than a 300 pound bench presser.

4. **Reactive Strength:** Reactive strength is the ability to use the muscles and central nervous system to achieve maximum force as quickly as possible after an intense muscular stretch. This can also be called "explosive strength". Reactive strength is developed after a strong stretch that builds kinetic energy during the lowering phase in different forms. Shock training builds reactive strength. Users of the Westside template use the dynamic bench presses and box squats with assorted methods of accommodating resistance to improve explosive strengths. Plyometrics are another method used to develop explosive strength.



5. **Accelerating Strength:** Louie Simmons says "To ensure the development of accelerating strength, bands or chains should be employed while using a bar or dumbbells, I believe this can prolong the rate of maximal force production during an exertion. This simply means one is accommodating resistance, making barbell training more productive." Accelerating strength is the ability to keep the weight accelerating maximally through the movement.



The conjugate periodization template that Westside uses is remarkably adaptable to damn near any application. To those without the proper grounding in the "whys" and "hows", the Westside model often seems confusing and contradictory. What it all boils down to is that there are three ways to train a movement (listed below). As a mental exercise, think about the different types of strengths listed above, and think about different ways to use the methods below to train them.

1. **Dynamic Method:** This is performing a movement with the optimal weight for the best speed. Going too heavy or too light in this movement is a mistake. A broad generalization is that anywhere from 40% to 75% of a one repetition max is optimal, depending on the lifter's individuality and the movement. The dynamic method is all about the speed and the perfection of the movements. Movements done using the dynamic method should always be done crisply and fast. Going too heavy is often the first mistake someone new to this style of training makes.

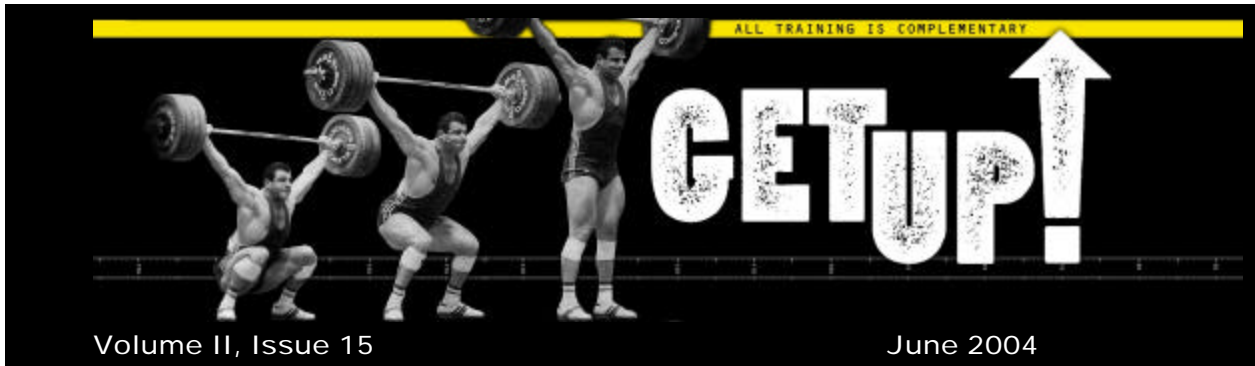
2. **Maximal Effort Method:** This method is easy to describe. Perform a movement at the heaviest weight possible for 1 to 3 reps. One important aspect of the Westside model is to change this lift often, every week for an

advanced lifter, and every two or three weeks for a novice. The importance of changing maximal effort exercises should not be underestimated, and is one of the key mistakes an athlete new to this type of training makes.

3. **Repetition Method:** This method is probably the most familiar to the general trainee. Simply perform an exercise for a set amount of repetitions, usually in the range of 5 to 20. In some cases, it may be beneficial to perform repetitions to the point of muscular failure, in others; the set should be stopped 1-2 repetitions shy of failure. The repetition method is used for assistance work in the Westside template, to assist in the hypertrophy and strengthening of weak areas. Another common neophyte mistake is going to failure too often and in too many exercises.

The Westside Barbell Club divides their training days into four days a week. These are:

1. **Maximal Effort Bench Press day** (maximal effort and repetition methods)
2. **Maximal Effort Squat and Deadlift day** (maximal effort and repetition methods)
3. **Dynamic Effort Bench Press day** (dynamic and repetition methods)
4. **Dynamic Effort Squat and Deadlift day** (dynamic and repetition methods)



These days can be placed anywhere in the week. However, there must be 72 hours between a maximal effort day and a dynamic effort day for the same movements. A simple schedule like this fits the requirements:

1. Monday: Maximal Effort Squat/Deadlift
2. Tuesday: Dynamic Effort Bench Press
3. Thursday: Dynamic Effort Squat/Deadlift
4. Friday: Maximal Effort Bench Press

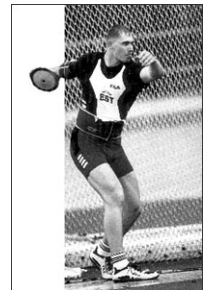
So does:

1. Monday: Maximal Effort Squat/Deadlift
2. Tuesday: Maximal Effort Bench Press
3. Thursday: Dynamic Effort Squat/Deadlift
4. Friday: Dynamic Effort Squat/Deadlift.

Westside Barbell Club has their days as:

1. Sunday: Dynamic Effort Bench Press
2. Monday: Maximal Effort Squat/Deadlift
3. Wednesday: Maximal Effort Bench Press
4. Friday: Dynamic Effort Squat/Deadlift

Please note that I will tend to use examples taken from powerlifting more than any other sport, simply due to the facts that there are numerous examples online for powerlifting and that this is what I am most familiar with. In the case of most of the readers of this article, they will either be a competitive lifter, or a thrower of some sort, or maybe both. Adapting the general principles of conjugate periodization to the Olympic lifts is probably best left to someone with more Olympic lifting experience than I have, however, getting stronger, in general, won't hurt an Olympic lifter or a thrower, and these methods have made many people much stronger.



As a final note for this section, I'd like to define just what accommodating resistance is. Accommodating resistance is simply using an external means to more closely match the strength curve of a movement. If you take the bench press and compare the subjective difficulty of different phases of the lift, you will find that the start of the bench press tends to be much harder than the finish. Adding bands or chains to the movement will tend to level out this differential. This will, in turn, make the muscles work harder during the entire stroke of the movement, and will in turn provide





greater overall gains in hypertrophy and strength. One other think accommodating resistance can help with is it teaches you to "out run" your sticking point. You need to keep applying force to the bar, or the bar will stop, and, in the case of accommodating resistance while using bands, the bar will reverse direction.

WESTSIDE ENLIGHTENMENT

In this section I'd like to go over some mistakes that are regularly made by newbies to this type of training. In addition, I am going to provide links to a lot of articles that I consider essential reading.

First off ask yourself this: What kind of program do I need?

Beginners are often much better served by a more basic program. An outstanding article by Dave Tate about this very topic can be read here:

http://www.t-mag.com/nation_articles/288ba.jsp

In most cases, I prefer to point you in the right direction, rather than re-inventing the wheel. The above article, entitled "Bustin' Ass 101" should be required reading for all people considering making their training more complex.

The mistakes made by lifters and athletes starting on the Westside

template are numerous, but I'll list some of the most common ones. If you understand these mistakes and avoid them, it'll save you a lot of heartache down the road. I seem to have to learn everything the hard way, and these are mistakes that I was warned about and ignored as well.

1. Going too heavy on dynamic (speed) days. You should keep your dynamic work around 50%-60% of your 1 RM, not above. Eventually, you may have to even move these percentages down. The rare beginner can use weights around 70%. But it's all about speed, if you aren't going fast enough, drop the bar weight.
2. Spending too many weeks on one maximal effort exercise. Three weeks tops, even for newbies. Advanced lifters might only spend one week on any given maximal effort exercise, others will change a major parameter each week (such as adding or subtracting accommodating resistance), but will still only keep a similar ME movement for two weeks only.
3. Self-diagnosis of weak points. The majority of lifters will work on what they want to work on, not what they need to work on. This sounds simple, but is really a complex psychological issue. You need to be able to look at your training and prescribe what you need to do, or have a competent coach or lifting partner do this for you. My training partners often bring up



something I need to work on that I had been oblivious to, even the beginners. Let's face it, self-deception is common personality trait, and beside, who'd rather do good mornings and Zercher squats instead of bench presses and curls?

4. Ramping up for your maximal attempt for the day on ME (maximal effort) day. Too little warm up sets might leave you a bit cold, too many might leave you fatigued. I tend to err on the side of too many sets, both for warming up and for conditioning reasons.

5. Inappropriate use of bands and chains. Especially on dynamic bench press days. The bands magnify the eccentric portion of the dynamic bench press, if this is coupled with bad form, this can have a deleterious effect upon your injury status.

6. Form issues: Your form on your dynamic days should be impeccable. There are several articles available on the Elite Fitness Systems website that deal with proper form.

7. Finally, before you start each workout ask yourself why you are doing it. Have a clear understanding of why you are doing what you are doing. If you cannot answer the question, do some research and some thinking. For example, if you are training for a bench press only meet, decreasing the volume of work for squats and deadlifts might be a good idea. If you are training for an unequipped bench press, the doing bench

press lockouts and 4+ board presses might not be a good idea.

There is a series of articles going into Westside beginner mistakes on the Elite Fitness Systems website written by Jim Wendler. They go into the problems listed above from a different perspective and with greater depth. Here is a list of them:

http://www.elitefts.com/documents/beginner_mistakes_jimw.htm

http://www.elitefts.com/documents/beginner_mistakes_part2_jimw.htm

http://www.elitefts.com/documents/beginner_mistakes_part3_jimw.htm

In the spirit of providing as much information as I possible can, here are some links to even more articles that will do a good job to educate you even further about Westside style training.

Start with "The Education of a Powerlifter" series. Dave Tate has written fine, entertaining articles that also educate you about the development of a powerlifter. The same methodical type of approach should be used to develop any beginning athlete.

http://www.t-mag.com/nation_articles/304edu.jsp

http://www.t-mag.com/nation_articles/305edu.jsp



One of the best introductions to Westside style conjugate periodization is the Eight Keys to Progress series found on the T-Mag website.

Here are the links

http://www.t-mag.com/nation_articles/264eight.jsp
http://www.t-mag.com/nation_articles/265eight.jsp
http://www.t-mag.com/nation_articles/266eight.jsp
http://www.t-mag.com/nation_articles/267eight.jsp

And, as far as links go, I recommend browsing the articles section of the Elite Fitness Systems site, which can be found here:

<http://www.elitefts.com/>

GPP (General Physical Preparedness) Revisited



GPP is a big confusing issue. GPP stands for general physical preparedness. I don't mean to beat my own drum, but I wrote about this way back here:

<http://danjohn.org/gu7.pdf>

I've re-read this just to make sure my current viewpoint still chimes with my previous viewpoint, and basically it does. I've probably relaxed my ideas about what constitutes GPP, but it's still basically the same. The articles listed above probably go into powerlifting GPP more than what I will here. However, the important thing is to remember that you need to be in a certain kind of condition to lift, or throw, or play, and that's GPP. The only real twist is that I've been exposed to Crossfit (<http://www.crossfit.com/>). Crossfit is another version of conjugate periodization, specializing in improving GPP, and is very well suited for use in preparation of a broad range of sports. It's not, in my opinion, suitable for strength and power athletes as Greg and Lauren Glassman present it with their Workout of the Day's on the website, but there is a lot of information that a strength and power athlete could use to improve their understanding of fitness and training on the website, especially in the Crossfit forum.

There is a line that can be crossed. If it takes more time to recover from your GPP sessions, than your weight training



sessions, than you'll need to reconsider the matter. GPP work can be tossed in either before or after a workout, if you keep it short, or on it's own separate session. The lifters at Westside Barbell use a weighted sled or a "sled-mill" for GPP (a sled-mill is a non-motorized treadmill), and will typically perform GPP before their workouts (if they need a break from regular ME work or feel out of shape), but many activities can be used for GPP. Sledgehammer swinging, tire flipping, bodyweight calisthenics, wheelbarrow walks, even light, higher repetition weight training sessions could all be utilized for GPP at some time. In addition, traditional cardio activities could be considered GPP as well. GPP should be somewhat different in nature than your regular training. Variety is the key, as it is in so many other aspects in life.

Some examples of GPP work I've tried (a side note: some of these are pretty intense activities. I've been leaning towards tough, short Crossfit style GPP sessions lately)

Sled Drags: Facing forwards, backwards, side to side, sled attached to ankles, straps held in hands, or attached to waist. Multiple trips.



Strongman circuits: Flip a tire 3-5 times, pick up some farmers bars and walk a distance, push a truck back.

Tire Flip/Sledgehammer work: I tried this because my training time was limited, and I have a big tire in my backyard. Flip a tire 3-5 times, then pound it with a sledgehammer using various swings for a minute. Catch your breath and repeat.

Calisthenics: The Tabata protocol is 20 seconds of intense work, followed by 10 seconds of rest, and repeated for 8 periods. Using this interval with bodyweight squats is challenging and only uses ~4 minutes of time. Expanding this with the addition of pushups and abdominal work can also be done. There are also some interesting and productive routines on <http://www.trainforstrength.com/>

The bottom line is that you might or might not need to get into better shape



for your sporting endeavors, but you better figure it out pretty quick. There comes a time when your efforts will be better directed towards more sports specific work (also called SPP for Specific Physical Preparedness), and without a proper foundation you will be leaving some potential untapped. GPP should never interfere with your preparation for competition, it should only enhance it.

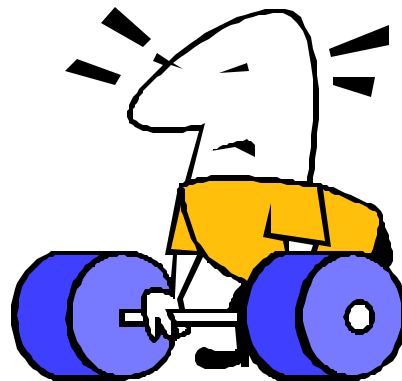


DEADLIFT VOODOO

Out of all the powerlifts, it seems that the majority of lifters have trouble with the deadlift. There are some very powerful reasons for this:

1. The deadlift movement doesn't lend itself well to supportive equipment.
2. The deadlift starts from a dead stop. Reactive strength won't help you here.
3. For most, deadlifting is no fun at all. It's a hard, brutal, grinding lift.

One very interesting thing is to look at the meet results between a federation like the APF and a federation like the USAPL. The deadlifts in the USAPL are much higher in relation to the squats. This is directly related to the equipment used. Some guys squatting 1000 lbs in unlimited fed are barely pulling ~650 lbs in the same meet.



The guys at Westside Barbell maintain that the deadlift has the highest drain on the CNS (central nervous system). Up until recently, they preferred to address this issue by using a majority of non-pulling special exercises. It's nice to just toss a blanket over the whole thing, and say that the deadlift is a killer on the CNS, and not pull and hope for the best. I've done this myself. In one meet I had a significant PR, in another, I regressed. Looking over my training logs, I didn't see all that much difference between the way I trained for either meet, except one was a push/pull and one was a full meet. When you look at the deadlift, and analyze the lift, it should be readily apparent that it makes a bigger dent in



the CNS than an equivalent squat, and here's why:

1. The grip: You have to hold onto the deadlift with your hands. You don't think it matters? I can practically guarantee that MOST (but not all) lifters can deadlift more when using straps. Don't forget your hands are the most innervated part of your body.
2. The full body aspect: The deadlift is probably the most full-body, brute strength, low skill lift you can do.
3. The mental aspect: Psyching for a maximum deadlift is tiring and an ordeal. The low skill required to pull a deadlift allows a lifter to really get agitated and froth at the mouth when preparing for the max pull. You can bet that this is going to take it's toll on the CNS.
4. The grinding nature of the deadlift. The competitive deadlift is not a fast lift. The lifter must be able to send a large impulse to overcome gravity and get the deadlift moving and then must maintain that impulse to finish the lift.

There are always exceptions. Some lifters pull and pull and pull and don't have a problem with it. I know of one guy who pulled max deadlifts every week for a period of 2 years, and his deadlift went from ~500lbs to ~800lbs. He didn't know his CNS was fried. If pulling a max deadlift every week would do that for me, I'd be hopping right on the bandwagon. This lifter suffers from

OCD (obsessive-compulsive disorder) and I suspect that this has a lot to do with his brute-force, straightforward plan and results. For some, like the lifter above, the no-deadlift approach doesn't cut it. For others, it's a godsend.

I haven't quite figured out how to tell if a lifter should pull more often or not, but I think it might have something to do with the difference between a lifter's stiff-legged deadlift and good morning (this insight was brought to you by Kip Miller of the HOUSE OF HURT fame). If a lifter excels as stiff-legged deadlifts, they are probably more suitable for a routine based around more frequent pulling. If they excel at the good morning, then using an assortment of special exercises with some skill and speed work on the deadlift throw in may be a better approach.

This is an old Westside recommended program for deadlifting:

- Week 1 - 15 singles @ 65%
- Week 2 - 12 singles @ 70%
- Week 3 - 10 singles @ 75%
- Week 4 - 8 singles @ 80%
- Week 5 - 6 singles @ 85%

Kip Miller swears by this, and says it's worked for him every time he uses it. He also says it works really well using the reverse band technique instead of regular deadlifts (you hang the bar from some



jumpstretch bands so it deloads as you get higher)

If you watch the training logs on EliteFTS you will see that they are doing more pulling. A lot of it is speed pulls with bands attached to the floor (as opposed to reverse band pulls), and there is a pretty decent amount of it done while standing on some kind of platform. This varies significantly from what they have done in the past.



You'll see some interesting things coming out of Westside in the next year or so about improving the deadlift, because it's the last frontier. Once Louie Simmons turns his eclectic talent towards improving the deadlift of his club, you will be seeing some improvement. It's already started and you can see that in one of his later

articles "Deadlifts on the Rise" or something on the Westside-Barbell site.

Here are some ideas I've had while brainstorming deadlift training. They are varied, and some chime with what WBC recommends and some go against the grain. Training yourself often involves a significant amount of experimentation.

Bottom position work is an excellent choice for ME work or assistance work. One of my favorite lifts to help the deadlift is the bottom position start zercher squat. This is a painful lift, but very effective for helping maintain the stability of the "core" during the deadlift. Bottom position GMs also seemed to help much more than regular GMs. Bottom position work seems to jar my spine and joints more than regular work. In terms of the central nervous system, this helps train for that big initial impulse to get the lift moving.

I also think isometrics at the bottom position and at the "critical joint configuration" (a term used by DB Hammer at www.inno-sport.net, who's training methods are based on training the nervous system, not the necessarily the musculature) might help, but haven't gotten around to experimenting with them yet. The CJC for the deadlift is supposedly around knee level and at the floor. The recommendations for these types of isometrics don't involve pulling



against a immovable bar, but rather lowering the bar to the proper position and holding it there for a specified amount of time. This would have a beneficial effect on a lifter's ability to maintain the required CNS impulse for a longer duration.

In addition, heavy, (and I mean eventually working up to bodyweight or greater) side bends or isometric suitcase deadlift holds, or one handed farmers walks, or suitcase deadlifts might assist here too. The lateral or side-to-side stability of the spine becomes an issue with the mixed grip typically used for competition deadlifting. It's a big enough issue for some (like Brad Gillingham and my friend Wade Hanna) to switch to the painful hook grip, and spend months acclimatizing the thumbs to that sort of pressure and pain.

I have just started dabbling with "density" type deadlifting. I'll take a 20 minute block of time, and perform deadlifts with a set weight. Over time, your workload will increase as you get better and better at pulling with that weight. When it reaches a certain threshold, you add weight. I've arbitrarily set this threshold at ~30 repetitions. This concept is highly recommended by Bryce Lane (who keeps an excellent website at <http://home.comcast.net/~joandbryce/> and a forum at

<http://pub101.ezboard.com/btheironworks>) and the strength coach Charles Staley, who really delves into it in his EDT (Escalating Density Training) concepts. Incidentally, the DOMS that occurred after the first session of this type of pulling kept my training partner home from work the next day. Not for the light hearted.

It's all Deadlift Voodoo. What works for me doesn't work for you. What works for me one meet, doesn't work the next. It's hard, brutal labor that often doesn't pay off. The deadlift is a harsh mistress.

3 DAY VARIATIONS

There are those out there who say you aren't training Westside unless you follow their recommendations exactly. I say you aren't training Westside, because you're not at Westside, and you don't have Louie Simmons yelling for being a candyass on a daily basis. Take the concepts, think about them, and apply them to your training. The rest is all verbiage.

One problem people have with the 4 day split is that they don't have 4 days to train. Maybe they only have three. Maybe they can't recover from 4 days. This is absurdly easy to get around.



The first method is to simply keep all the days, but float the fourth day into next week. For example:

Week 1

Monday-ME BP

Tuesday-ME SQ/DL

Thursday-DYN BP

Week 2

Monday-DYN SQ/DL

Tuesday-ME BP

Thursday-ME SQ/DL

Week 3

Monday-DYN BP

Tuesday-DYN SQ/DL

Thursday-ME BP

For those with recovery issues, this works very well. The second method is to combine either the two dynamic days or the two max effort days into one longer workout. The format for that workout, to keep it manageable should look like this:

ME or DYN BP work

ME or DYN SQ/DL work

BP assistance exercise

SQ/DL assistance exercise

Ab work

That's short and sweet. To make this effective, you need to pick good, compound assistance exercises, not something like triceps pushdowns or leg curls. I'd also strongly recommend that

the combined day be the dynamic days, simply due to the more intensive nature of ME work.

Excellent work, Steve. Thank you very much!

Stuff I have learned on my "Get Up Goalsetter" Attempt

1. Increasing my fiber was a very good idea...overall.
2. Having a lofty goal takes all the fun out of competing.
3. If you really want to improve, throw/lift/compete against the World's best.
4. You need to make a focused effort to toss out any rituals or patterns you may have before competitions. I have yet to go to a track meet that has not had at least one major administrative error (save the Thor Meets in San Diego...a true "Thrower's Paradise). You simply can't plan for all the changes that officials make...especially when the officials are all wearing matching outfits. The nicer the outfit...the more likely they have never seen the hammer throw.
5. Sled dragging and Farmers Walks are key to a 46 year old thrower improving.
6. If the body is truly one piece, than you have to spend time understanding the role of all parts of the body...then let them figure out how to do it!
7. The answer is always simple...
8. Nothing matters...not warm ups, plane flights, shoes, haircuts, breakfast...when the ring judge calls your name. Step in and throw.
9. I have a pretty good support staff: Tiff, Gary, Rich, Mike, Mindy, John, Mark, the Glassmans, Matt, "other" Mike, the gang in Dennison, Steve,
10. It takes courage to make your goals public.

Published by Daniel John

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