

STRONG

GYM LLC

PROGRAMMING:

WITH

MARK RIPPETOE

AND

GLENN PENDLAY

BY

MATT REYNOLDS

Programming: With Mark Rippetoe and Glenn Pendlay

In our last interview we talked with Mark Rippetoe, owner of Wichita Falls Athletic Club and author of *Starting Strength* on how to coach beginners in weight training. This month the man who drinks his own home-made mead from a horn is back, this time with fellow coach Glenn Pendlay (the man who once mentioned that you could add a surprising amount of alcohol to DQ Mister Misties before anyone noticed) to answer specific questions about programming from beginners all the way to elite level athletes.

Beginners:

Matt: Ok, let's start at the very beginning – a very good place to start. How young is too young to start a strength training program? We've heard for years that weight training will stunt a kid's growth. Would you like to put that rumor to rest now?

Glenn: There is a chapter included in Mark's book written by Lon Kilgore that specifically deals with the misconceptions about youth training. I personally don't see any physical problems. We don't hesitate to put kids in soccer or gymnastics at 4-5 years of age, either of which are way more stressful on the body than weight training, and either of which are way more likely to cause injury. So I think the whole safety thing is a non-issue. I'm more concerned with a kid's mental development. Just like with any other recreational activity, if the kid is mature enough to follow directions and keep his mind on task for a reasonable amount of time, he can do it. If not, he can't. I've got a 7 year old girl right now who does really well. I've also seen kids quite a bit older who really shouldn't be in the weight room.

Rip: I would just like for somebody to explain to me why it *would* stunt a kid's growth. Do they actually think it smashes them down shorter, or shuts off the supply of growth hormone due to pressure in the skull, or that it destroys all the growth plates, or that it pisses off the Tooth Fairy? My god, how do these silly things get started? Here's another good one: once you stop training all the muscle turns to fat. I like to tell people that ask me about this that the muscle *actually* turns to bone. That makes exactly the same amount of sense.

Glenn: One thing I like to explain to people who are hesitant to put their kids in any sort of resistance training program is the concept of adjustability. Weight training is adjustable, infinitely adjustable, while most activities are not. This actually makes it MORE appropriate than many other things for people, including young kids, whose physical abilities aren't that great. When you do a handstand, jump up and land, or run into somebody on the soccer field, the stress that these things transmit to the body is determined by the laws of physics and the bodyweight of the participants. Gravity doesn't give a break to the guy with weak legs. With weight training, we can adjust down to whatever is appropriate to start with, even if it's a broomstick, then gradually add from there in whatever increments and at

whatever speed is reasonable. You never have to ask someone to do something that they aren't ready for or strong enough to do safely, no matter how young or weak they are. My 3 year old son did a pretty good set of 10 the other day on the overhead squat...with a broomstick. That's resistance training, and it illustrates what is appropriate for that age, playing with a broomstick and copying the older kids and having fun.

Matt: So how would you train young kids?

Rip: By young, I assume you mean prepubescent. I have always just taught them the lifts, yelled at them about absolutely correct form all the time, and let them lift as much as they can for sets of 5. They go up as they are able, with very small jumps and no more than 3 workouts per week. They are not strong enough to lift enough weight to get injured. It is virtually impossible to get hurt with absolutely correct form anyway, and correct form precludes any use of more weight than can be safely handled. They are also encouraged to eat right, eat a lot, and sleep.

Glenn: Mark deals with a lot of kids in the 12 to 14 age group. The way he does it is absolutely right. By definition, if they are doing a certain weight or exercise while following his program, they are strong enough to do it safely. In my opinion, there simply is not ANY better way to handle this age group. I often work with even younger kids, right down to the 7-8 year old age group. It's necessary, if you want to develop the very best weightlifters (the sport, not the activity) to start young. With this age group you have to pay attention to the mental side of things, the attention span. So I do more variety with these kids, and don't have quite the set in stone program for them that either Mark or I use for older kids. More "fun" type of activities so that they are doing different types of things every week and don't get bored.

Matt: Mark, in your book, Starting Strength, you go in depth about how to coach absolute beginners. However, one thing we didn't cover in last month's interview is how specifically you set up their programming. I noticed from reading the book that you do just a handful of core exercises, usually for 3 sets of 5 reps and utilize progressive overload until they stall. Could you go in a bit more depth about that programming?

Rip: It's really not much more complicated than that. If it was, it wouldn't be useful. We teach correct form on the lifts, determine how much weight can be used for sets of 5, and then add a little to each exercise every workout, the amount depending on the exercise, until that simple linear progress stops. The more careful the trainee is about picking the increase, about not getting greedy, the longer the progress can be maintained. All assistance exercises are done after the core lifts, if at all, and for sets of 10. We do some glute/ham work and some reverse hypers, and a few arms. Chins I consider to be a semi-core lift, and we do those to failure for 3 sets until failure exceeds 12 reps, at which time we add weight to get the reps back down in the strength-training range.

Matt: Why do you guys like 5 reps so much? How often do you utilize other rep schemes?

Rip: On page 200 of *Starting Strength*, **(I NEED THIS ILLUSTRATION)** figure 7 integrates a huge amount of information about how human physiology responds to exercise, and provides a very clear way to see the relationship between the number of reps in a set and the effect on the body. Five reps is good because it provides a general strength response, and strength is cool.

I use more reps when I want to produce a specific hypertrophy response, such as bicep training. Now, not many people care how strong their biceps are, since there aren't many strict curl contests anymore. They just want them to be bigger. So we train biceps for 10-15 reps, and do fives for them occasionally so that we can do more weight on the sets of 10. Lower reps are used for the obvious stuff, like getting the squat, bench, deadlift, and press up, and for the Olympic lifts since they are explosive/technique movements. Nobody does sets of 20 snatches around here, at least not since I tried them that time and made such a mess on the platform. But this is all basic stuff that most people know. Fives are just a good number of reps: enough work to make you grow, not so many that the spotters wander off.

Glenn: I answered a question in another interview recently by saying that I knew I could come up with a detailed scientific answer that demonstrated my command of muscle physiology and made me look really smart, but that it would in reality be a load of bull. Pretty much the same thing here. I've tried other things, I always come back to multiple sets of 5 simply because I've yet to find anything else that works as well. For all our strength exercises, squats, presses, things like that, we do most of our work with 5 reps.

Intermediates/ 5x5:

Matt: Ok, moving on...Let's talk about intermediates and specifically the 5x5. First let's look at the 5x5 tweak that has floated around the internet and was rumored to have started at your hands, Mark, though I believe was originally typed and posted by Glenn:

The 5x5:

Monday: Full Squats, Benching, Barbell Rows

Wednesday: Full Squats, Military Presses, Deadlifts, Chins

Friday: Full Squats, Benching, Barbell Rows

*Bill Starr, the greatest strength coach who ever lived, popularized this in the 70's with his great book, *The Strongest Shall Survive*, which was aimed at strength training for football. I believe he had essentially two different programs which both are 5 sets of 5. The first, which is more suitable for beginners, is to simply do 5 sets of 5 with similar weight jumps between each set so that your last set is your top weight. When you get all 5 on the last set, bump all your weights up 5 or 10lbs. Example for squat... 185 for 5, 225 for 5, 275 for 5, 315*

for 5, 365 for 5. If you get 365 for 5, move all weights up. This is especially good for someone who is just learning a particular exercise like the squat, because the amount of practice with light but increasing weights is a good way to practice form.

For more advanced lifters, he advocated a warm-up, then 5 sets of 5 with a set weight. For example, the same athlete used in the other example may do 135 for 5, 185 for 5, 225 for 3, 275 for 2, 315 for 1, then 350 for 5 sets of 5. When successful with all 25 reps at 350lbs, bump the weight up the next workout by 5 or 10lbs.

This is not outdated, and is a good program for gaining strength. Many elite athletes still use it during at least part of the year. I in fact do 5 sets of 5 on squatting for 4 weeks as part of an 8 or 10 week training cycle. Personally, I do it 3 times a week, but most people will probably make better progress doing it 2 times per week, or even doing version 1 once a week, and version 2 once a week.

In any event I described a system in a post a while back that goes something like this:

Monday use the heaviest weight you can for all 5 sets (same weight each set)---- in other words when you get all 5 sets of 5 reps up the weight (most workouts you will get 3 or 4 sets of 5- and maybe your last one will be for 3 or 4 reps)

Wednesday use 10-20% less weight- in other words if you used 200lbs on Monday use 160-180lbs on Wednesday- actual amount depending on your recovery

Friday work up to a max set of 5.

In other words let's say that your best ever set of 5 is 215lbs and you used 200lbs on Monday for 5 sets and 170lbs on Wednesday. On Friday your workout might be like this; 95 for 5, 135 for 5, 175 for 5, 200 for 5, then attempt 220 for your last set of 5.

This tends to work better as a long term program than doing the same thing 3 times a week. On exercises where you only do them once a week like deadlift you can just do the 5 sets of 5 like I described. On Monday, on exercises that you are only doing twice (rows) you could do both exercises like the Monday workout or lighten one of them depending on your recovery ability. Be conservative with the weight when you start- that is important.

Also I have used this program VERY often with athletes and it IS result producing.

However many of your gains will show up after you use it for 4-6 weeks and you switch to training a bit less frequently and lower the reps and volume. However this is one program I have had a LOT of success with. In fact I rarely if ever use it with athletes who are at the top of their weight class because it causes too much weight gain unless you severely restrict your food.

Glenn: That's something I typed up around the 1999-2000 time frame if memory serves. Kind of confusing and a few grammar mistakes, but that's typical for anything I write which doesn't get edited by Mark before it gets sent out. We still use that basic program an awful lot, although we usually substitute front squats for the lighter Wednesday back squats. Heavy front squats and light back squats are about the same to recover from.

I'm the one who came up with that particular permutation of the program, but it's impossible to attribute it to one person. All our training methodologies here in Wichita Falls have come from collaboration. You start with Bill Starr, let Mark apply and tweak his ideas for 20 years, then add the Westside and OL influence I brought with me when I moved here and that's how we came up with our present philosophy.

This particular program is the single most used squat program at Wichita Falls Weightlifting. We do it just like this, with the exception of front squats on Wednesday instead of lighter back squats. The front squats are done for heavy triples. This particular squatting program is the most useful one I have used for people in their first couple of years of training.

It's funny, around the time I first put that up on the web, NO ONE was talking about that kind of training. If you went to a powerlifting website, you talked about Westside, if you went to a bodybuilding website you talked about drug cycles and how many sets and exercises to do on back day, which always came exactly one day a week. No one wanted to talk about training with sets across instead of failure, or managing weekly volume, or heavy weeks or light weeks. Now it's all over the place, people are talking about Westside for skinny guys or Westside for beginners and incorporating multiple sets of 5 into the max effort day, on bodybuilding sites you have HST, which is similar in many ways to what we do, as well as tons of people who are using sets across and training movements not muscles, and training muscles multiple days a week.

Medium reps and multiple sets across and squatting 3 days a week is a proven method of getting strong. People are rediscovering this type of training and it still works, just like it did 20-30 years ago.

Matt: It also seems that you guys begin using specific, planned periodization with your lifters as they progress into the "intermediate" status. Glenn has also spoken of an 8 week squat program that pairs well with the 5x5, but adds periodization to the program...

8 WEEK SQUAT PROGRAM

(run in conjunction with the 5x5)

I do squats only. However I also do alot of other pulling motions off the floor, and these also work the legs. as far as squats Monday 5 sets of five with a set weight Wednesday, 5 sets of five with a weight that is 10-15% less than Monday. Friday, work up with sets of five, going for your best set of five. Here's an example of how we do this...

*Lets say a person has a previous best of 5 sets of five weight with 300lbs, and has done one set of five with 325lbs for this person I may start with Mondays weight of 285lbs, Wednesdays weight of 255lbs, and on Friday work up to a set of five with 310lbs, however if this person never trained this way before **I would be much more conservative**, more on that later then make small jumps each week, maybe week 2 use 295, 260, and 320 for the three workouts, week three use maybe 305, 265, and 330...and so on.*

however keep this in mind, if on Monday you cannot do all five sets of five keep the weight the same the next week, and on Friday if you fail on a weight you choose keep the weight the same the next week

now, here's a few more hints, if you are not use to this sort of training and know you are gonna be sore as hell the first couple weeks, simply start more conservatively with the weight. if you are used to this sort of training, you can be a bit more aggressive from the start.

Also as the weeks go by, don't increase Wednesdays workout as much as the other two. Also some people are able to handle a heavier Wednesday workout than others. I have had athletes who have reacted best if Wednesday's workout was only 5% less than Monday's weight. I have seen others who needed 25% reduction, however the average seems to be 10-15%, maybe if your new to this training start with 25% reduction then next time try 10-15% reduction.

With people new to this program I usually use it for 6-7 weeks, because we start more conservatively and it takes longer to get the benefits. with people who have done it before I generally go with 4 weeks at a time and go with setting records on Monday and Friday of week 3, week 4 is to try even more weight if week 3 was successful, if it wasn't, then try record weights again. After this routine is over, we drop the frequency to about two workouts a week or even a bit less, and drop volume usually to 3 sets of 3.

The first week, we use the same weight as on the last Monday of the 5 sets of five workout. This helps with recuperation. Then, as in before we add weight each workout, this time aiming to break records on the fourth or fifth 3 sets of 3 workout.

Sometimes we cycle on down to 1 set of three for two or three workouts, other times we have an offloading week then start with the five sets of five again.

I probably left some things out, i always seem to. however, although there are other programs that i am sure are effective, i have used alot of leg training programs and this one i know works, i have used this routine on probably over 100 athletes with success all around. it is not unusual for an athlete to increase their leg strength 100lbs in the full squat in the first six months i work with them.

now i know of other people who have tried this program on my recommendation in the track and field world, and not have the success i have had. However they always make the same mistakes, either starting on week one with max weights and not taking a week or two or even three to work up to max weights, OR, they start in on the 3 sets of 3 with too heavy a weight... you have to adjust the volume. don't be in too much of a hurry.

Be content to set records on week 3, not week 1. Well that's about it, but if your patient and do it right, it will be effective."....

wow that was a mouthful ok, that is what i was talking about, although in that post i didnt explain a couple of things that i would like to now.

As you see from reading that, were talking about 4-6 weeks basically of a prep phase, and 3-5 weeks of a peaking phase, so it's not really an 8 week program all the time. Every time i write this program out, it's a bit different, that's because it's not a set in stone thing, but an example of a training philosophy... and it can and is altered in the details for individuals. However, there is one important point concerning what can be altered and still get the desired effects.

During the initial phase where 5 sets of 5 are used, you must stick to the written workout frequency and volume. No matter what, do the required sets 3 times a week. If you feel like you're really dieing, then cut the weight back. But in the initial portion, the volume and frequency shouldn't be messed with. Now, when you go to the sets of 3, you need to begin with the weight specified, and go up each workout, and you should be fairly rested each workout.

that means that you MAY be able to squat 2 times a week at this point, however you may need to squat once every 4 or 5 days, depends on the individual. Also, 3 sets of 3 is a good volume for the first week of this phase, but often people react better to 2 or even one top set per workout during the second, third, or 4th weeks of this phase. During this phase, it's the opposite of the first phase, he weight increases are the important thing.

Take enough rest between workouts and cut the workout volume enough to assure that you are recovered enough to raise the weight. Hope this clarifies a bit. The 3 day a week program I wrote was an example of a basic 3 day a week program for a relative beginner. I meant it to be done without any other assistance work except maybe abs. Of course, an advanced lifter would probably not do that workout exactly as written.

As far as the "peaking" part of the squat program, I usually use this with shot-putters and athletes like that, and don't necessarily do it with a program like the 3 day a week program, although if you were doing that and wanted to "peak" a particular exercise, it would work.

basically, if you are not going to try to peak strength, you need to be more careful when doing the 5 sets of 5 three days a week, and not get the weights up so heavy that you start to overtrain... a more gradual increase in weights is called for, and you must use a little common sense and not push so hard you need rest... when trying to peak you just push and keep pushing on the last couple of weeks of the 5 by 5... you push right to the brink of overtraining basically, then back the volume and frequency off with the sets of 3.

Glenn: That's really just an explanation of how to use the previously described program as part of a peaking plan. There is nothing complicated here. You just work real hard with heavy weight and a pretty high volume of work, then cut the volume and peak. Rip talks about trying to squat and make a PR set of 5 every squatting workout with beginners, then you have the routine described above, and the "peaking" variation also described, and what you are really seeing is how we change training over time.

A beginner will be able to increase strength with a minimum of change from week to week or day to day in training. The version of 5X5 that I previously described has a little variation. It's appropriate to use when you can no longer come in to squat 2-3 times a week and add 5lbs to your old 5RM just by putting the weight on the bar and getting under it. This small amount of variation in this program, (higher volume on Monday, a lighter day on Wednesday, then high intensity on Friday), is usually enough to keep the gains coming for a while. Eventually, you have to add some twists to keep it working, for instance, backing the weights off once in a while by 15kilos, then adding 5k per week to the bar so that you give yourself a 3-4 week run at a new personal record, pushing Mondays workout for a while, then stopping the weight increases on Monday, maybe backing off 10k on Mondays weights, and pushing Fridays weights for a while. Stuff like that, just minor adjustments in where the real focus is.

Eventually, you need more variation, and the program labeled above as the "8 week squat program" becomes appropriate. You work up to some pretty hard high volume training and load the body very hard. Then you back the volume off, unload, and go for some heavy weights as you get rid of all that fatigue and peak. These programs work, but they mostly work because we use them in the correct order, and use the appropriate one at the appropriate time. The key is starting simple, and slowly adding complexity and extending the time between expected new personal records.

Matt: Can you guys expand a bit on the 5x5, where it came from, and how you use it at Wichita Falls.

Rip: Five sets of five is an old program. Mark Berry was using it back in the 30s on his athletes, and Billy had me doing it for my bench. He had me using a rather brain-embalming version of it he got from Doug Hepburn, who I suppose gave it to him during an interview such as this when he was at Strength and Health. Hepburn's were actually quite a bit harder. They consisted of five singles followed by five sets of five. The workout took a helluva long time to do and the singles/fives combination was just a brutal thing to recover from. I tried it on squats and deadlifts too, but the only thing it could even be considered for was the bench. The singles were supposed to be near-limit, and the fives were whatever you could do and still make all five reps of the last set. At some point I began using the fives without the singles, after I had retired from competition. I feel like that is a much better way to do the work. The workout is shorter, and the fatigue from the singles was the limiting factor on the fives.

The way we do them now is actually a version of the Hepburn program. We do 5x5 for one workout, and the second workout we steal from Louie and do timed explosive sets. Thieves, we are. Fives provide strength base, and force production work is done on the explosive sets.

It is very important to understand how the fives go up in weight. They go up slowly. Now, the vast majority of the world's population is composed of impatient assholes who get easily frustrated with having to obey the laws of physics and physiology. For people such as this, 5x5 will not work, since they will insist on trying to go up, for example, five pounds on the bench every workout. Since 5x5 is done once per week, they try to go up five pounds a week. Well, the bench won't get strong that fast. For an intermediate lifter it just won't. It will for a novice, and a novice doesn't need this program until his 3x5, add weight every time isn't working any more. But for an intermediate or advanced lifter, five pounds a week won't go on the bench, or the press either. The squat and the deadlift will move up five pounds per week since they involve more muscle mass (if you want to try 5x5 on the deadlift, be careful since it may be impossible to keep from overtraining, given the weights that can be used and the nature of the deadlift). It is for this reason that small plates that allow for small jumps must be part of your equipment if you do 5x5. If you are training at home, this is no problem since small jumps can be improvised. But at a commercial gym, it is important that the place be equipped with small plates: ½ pound, 1 pound, 1 ¾ pound, as well as standard 2 ½s. And if you're going to take small jumps, it is important to use the same bar and plates each time – the very same bar and plates. Castings being imperfect creations, there is often more error in 240 lbs. of bar and plates than the jump you are trying to make from last week. If you use exactly the same equipment each workout, you can control your increase exactly – even if the plates are off a little, the only difference is what you have just added. At WFAC I have a couple of sets of marked plates, and all the bars are numbered.

Patience is the key to 5x5. Many guys have gained many pounds of muscle using 5x5 correctly and patiently. But if greed sets in, progress stops because you'll miss reps in the later sets. All five reps of all five sets must be finished.

This means small jumps, but it also means enough rest between sets. Any workout that includes missed reps must either be slowed down (in the case of more than one rep missed on more than one set), repeated (in the case of a missed 5th rep on the 5th set) or lightened (in the case of reps missed on more than the last set). If the jumps are small enough, progress can be sustained for many weeks before this program will need changing.

Matt: Is it during the intermediate phase that you usually add in dynamic weight training for the athletes (specifically concerning squatting, and possibly pressing since OL lifts are very dynamic in and of themselves)? How important is dynamic training (in the Louie Simmons sense of the word) for athletes?

Matt: Furthermore, what is your stance on “sport specific training?” Now I’m not talking Paul Chek bullcrap – I’m thinking more along the lines of Dr. Michael Yessis. To what extent do athletes need “sport specific training” – or do most athletes generally need similar things – general strength, speed, agility, etc.?

Training Theory and Periodization:

Matt: Ok, before we move on to programming for the advanced strength athlete, let’s talk about a few basics concerning periodization and training theory...

First, can you give us a good overview of the difference between the Single Factor Theory (that most of the bodybuilding world subscribed to) and Dual Factor Theory.

Glenn: Single factor theory is just supercompensation. You train, you tear down your body, and the body builds itself back stronger. You repeat the process, trying each time to do the next workout when the body is recovered and stronger and you are starting at a slightly higher baseline. It’s a great model, and works well for many people. It works well for almost every beginner. The problem is, the body becomes resistant to change. The body adapts and pretty soon it’s very, very hard to do a single workout that produces the desired response.

Dual Factor Theory looks not just at a single factor (physical ability) but at two factors that combined make up physical ability, fitness and fatigue. Each training session affects both, although the magnitude and duration of the effect is different for each one. Looking at training in this way lets us make sense of reality, what most elite athletes do even if they have never heard of any training theory. They train tired. They are rarely fully recovered, except at major competitions. They look at weeks and months of training the same way beginners look at a single workout. One month of hard training to stress the body and force a response, another month of easier training to recover. Periods of more difficult training increase both fitness and fatigue (so that although fitness is increased, performance at that time might not be), and periods of easier training reduce fatigue while preserving fitness.

Matt: Second, Glenn and I touched on this in our interview earlier this year, but could you review the basics and importance of loading, unloading, and peaking while giving specific attention to manipulating the overall stress of a program by keeping intensity high and varying volume?

Glenn: It is my opinion that much of the “periodization” that is done by many people focuses too much on changing the means of training, and not enough on changing the overall difficulty or stress on the body.

Changing the means of training can be things like changing exercises, rep schemes, or rest periods. If you use these as your sole means of variation in training, you may still never load your body hard enough to evoke a response, or allow it the rest needed to realize the performance gain. Bear in mind here that I am talking about intermediate/advance athletes. I believe that an athlete needs to have periods of high stress training, and periods of low stress training. I also believe that if you do this, concentrate on changing the stress level of your training from week to week and month to month more and changing the training means less, it allows you to be more efficient in training, to stick to what works in other words. There are only so many changes you can make in rep schemes and exercises before you are doing things that aren't of much use to your particular sport.

Matt: Let's discuss some of the main forms of training, Bulgarian style training, Westside, the old linear periodization powerlifting training cycles, Russian style training, or anything else you think is important.. Why might one work in one instance but not in another? How should a person decide what to use?

Glenn: Every type of training works at some point, none work in every instance. Furthermore, athletes have gotten to the top using just about every type of training scheme out there. You realize that and it is tempting to say that hard work is what counts and the training scheme is unimportant as long as you work your butt off. There is some truth to this. Work hard enough and long enough, and you can probably get to a high level on almost any reasonable program.

The problem is determining what is the BEST and QUICKEST way to progress. This changes as the career of the athlete advances. What drives progress in the first 6 months is not necessarily what drives progress in the 4th year. The programs you mentioned are all appropriate for some sports and situations, and not ideal in others. I talked a little bit in response to another question about training changing over time, about the appropriate amount of “variation” changing over time. Choosing the correct training program is very simply a matter of choosing the correct degree of “variation” and the correct training means.

For example, Bulgarian training is based on very specific training, making training almost exactly like competition. Little or no variety in exercises or intensities. Same thing over and over. This works very well for highly skilled athletes in sports like weightlifting, where competition consists of two movements which are

intended to be done exactly the same, every single time. It wouldn't be a very appropriate way for a football player to use his time in the weight room, however. Of what use would becoming very, very efficient at a couple of weight room exercises be to him?

Powerlifting is sort of like weightlifting... but different in that high intensity attempts at the competitive events are slower affairs, involve eccentric contraction on 2 of the 3 lifts, and therefore are generally much harder to recover from. This means a powerlifter, or at least the vast majority of powerlifters, can't train by doing 95-100% bench presses and squats every day. The "Bulgarian" method just won't work. Years ago almost all powerlifters got around this by using a type of periodization usually called linear: intensity starting low and rising, volume starting high and dropping over a certain time period, usually 8-12 weeks. This works and has produced a ton of great performances. However, a problem with this, especially for the athlete who is at a high level, is that so much of the training cycle is spent doing things that aren't that specific to a single rep bench, squat, or deadlift. As I said earlier, if you change the means of training too much, you compromise the effectiveness of the training. This is the major shortfall of linear periodization.

Westside was developed by Louie as a way around this problem, and allows a powerlifter to do what many weightlifters do, train year round with a training means that is very specific to competition. As I mentioned, most weightlifters do a ton of high intensity attempts with the competitive lifts, the training is pretty specific to what is done in competition. Because of the different nature of the competitive lifts, powerlifters simply can't do this. Louie has solved this problem in a couple of ways. The dynamic effort day uses speed instead of weight, but you still get a lot of attempts on the lifts where you are pushing or pulling as hard as you can, much more similar to competition than say, sets of 10, or any of the things that a linear periodization training cycle inevitably starts with. The max effort day uses heavy weights, max weights, the straining and slow movement are similar to competition, but they can do it week in and week out because the exercises are changed continually. It's a system that is much, much more specific to what a powerlifter actually has to do in competition than most of what you do in a linear periodization program.

Instead of focusing on what kind of periodization is best or worst, people should be focusing on what is appropriate to them. The typical powerlifter training cycle of the 80's, lowering reps and raising weight over time, along with beginning a cycle with relatively easy training that got harder towards the end obviously works with a wide variety of people. Some of the greatest powerlifters of all time used this style of training from the first workout of their career to the last. Workable, yes, but not ideal in every situation. Usually a beginner using a program like this is taking the progress they could make in a week or two and drawing it out to a several month period. The reason is simple. An experienced lifter might be happy with 5lbs of progress after an 8 week training cycle. A beginner should be able to put that much on their squat almost every single

workout. Following an 8 week cycle will make a beginner stronger, but not as fast as they are capable of getting stronger.

Each athlete should try to determine which training style fits them, what is the training program that is most specific to their sport and still “doable”. For weightlifting, that means getting as close to the Bulgarians as possible. If I were a powerlifter, I’d be using Westside. A football player doesn’t need specificity in training like a weightlifter or powerlifter. He has to be strong not on one particular thing, he has to be strong and fast in as wide a variety of situations as possible. That means that programs that change the training means over time or provide a wider variety of means are more appropriate. This doesn’t mean that a football player should get away from focusing on things like squats and cleans and bench presses and substitute a bunch of sissy exercises done with tiny weights, it just means that not everything they do should be modeled around copying things involved in training for a 1 rep max.

Whatever means of training you pick, progressing as quickly as possible also involves planning the degree of variation that is appropriate. Whether you use Westside style training or 5X5 to train your squat, if you are capable of increasing the weight on the bar every week, you should be doing it, and not waiting around for the end of an 8 week cycle to increase your weights. Likewise, if you aren’t capable of progressing every workout or every week, you need to add some long-range planning, and not let the appropriate long term stress and rest happen once in a while by accident.

Advanced Lifters:

Matt: Ok, with that covered let’s tackle programming for advanced strength athletes - (not competitive Olympic lifters (we’ll get to those), but rather football players or general strength athletes. How do you program for these athletes? Do you typically put them on an upper/lower or push/pull split?

Rip: Upper/lower works if you understand that lats are “upper”(since they attach to the arms) and that “lower” means squats and pulls. There is much unnecessary confusion about this. Push/pull is a rather arbitrary construct, since all muscles contract, and it provides no functional, logical way to organize a workout. Do we deadlift and squat on different days because one “pushes” and the other “pulls”? Why? Do we bench and chin on different days, despite the fact that both heavily involve the triceps?

I would argue that football players and general strength guys never get to be advanced. Their emphasis is on other things, they spend significant amounts of time training in ways that have nothing to do with specific performance under the bar, and as a result may never advance beyond the intermediate level. The fact that an athlete has been training for a long period of time does not necessarily make him advanced. Glenn, Lon and I have talked about this quite a bit, and we have decided the following: A novice lifter is someone for whom simple linear progression – where an increase can occur every workout – is enough to

produce progress. An intermediate lifter is one who needs his training arranged in longer periods of time – perhaps a week – so that the correct amount of stress and recovery can be administered to facilitate progress. An advanced lifter is one for whom weekly intermediate-type training is no longer working. Since we have decided this, it is so. WE have spoken. I am helping Lon now with a book that will deal with these topics.

The type of training, in terms of exercise choice and arrangement, should obviously vary with the sport being trained for. Just screwing around in the gym is not a sport, although it may be a very serious activity, and is certainly a legitimate thing to do. I have done it for many years now. But the choice of exercises is dictated by the goal of the trainee. An advanced athlete by definition has a sport he is advanced in, and his training will be determined by it. If we are going to a meet, we listen to coaches for the particular sport we are training for. Glenn will have a different program for his lifters than Louie has for his. If we are just training to stave off death, like I do, we do the exercises that cause us the least problems, since our training goal is not much more complicated than that.

Matt: Ok Glenn, you can wet your chops here. While each athlete is quite different, can you take us through some generalized idea of how you program for an intermediate Olympic lifter all the way through to programming for your advanced Olympic Lifters.

Glenn: I can give you a real simple explanation of how we start kids their first week, and go from there all the way to a national championship, because its quite simple and in fact boring.

We start beginners training 3 days a week. Each day they snatch, clean and jerk, squat, and do some other general strength or conditioning movement. There is no plan, no periodization. They do mostly singles on the quick lifts, sets of 5 on squats. Some days they work up to max on snatch and clean and jerk, some days they practice technique. Squat training is centered around trying for new personal records every week.

Eventually the athlete will be at a point where they know how to do the lifts and are pretty well adapted to the workload, and progress slows dramatically. When this happens, we gradually add training sessions and add complexity to the training. Added training sessions start out as light workouts on what was an off day... a guy will go from training Mon, Wed, Fri only, to having heavy sessions on those days and lighter sessions on Tue, Thur, and Sat. The extra sessions are added one at a time, not all at once. Eventually, the lifter will do around 12 workouts a week. My 2 or 3 best lifters do 15 workouts a week for about 3 months out of the year.

While this is happening, we will also go from doing all our snatch and clean and jerk workouts the same (basically working up heavy if form is good, staying lighter and practicing technique if it isn't looking so good) to more variation, like higher volume to lower, lifting from boxes some of the time, etc. By the time a

guy is in his 3rd year, he will have progressed from every workout unfolding based on how he looks that day to definite periods of high volume and others of lower volume, and weeks of higher stress and weeks of lower stress.

This is it, how to gradually go from 3 basic workouts a week to 10-12 workouts a week with a weekly, monthly, and yearly plan. We stay as basic as we can. We only add complexity when the simpler training isn't working anymore. At the risk of sounding like I am trying to drive home the same point again and again throughout the interview, this plan of only adding complexity when it is needed is, I think, a key concept in our training, one of the main reasons we are successful.

Conclusion:

Matt: While there is always more than one way to skin a cat, what are the things that most good programs have in common?

Glenn: On a good program you are going to work hard. A good program will include hard enough squatting that you really, really don't want to do leg extensions. You're going to be training your squat, not your quadriceps, your deadlift and not your back, your bench and not your pecs. You're going to train large parts of the body, even the whole body, in each workout.

Rip: All good programs produce quantifiable progress. They all require the athlete to do certain prescribed things each workout. They all take the athlete's current training status into account. They are all specifically designed for the needs and abilities of each athlete doing them. They all assume that the athlete will use correct technique, and that adequate communication between coach and athlete is occurring. Most importantly, all good programs must make the athlete *want* to do them. A correctly designed program reinforces the athlete's interest and confidence in its ability to help him achieve his goals, causing him to do the program because it works, because improvement is why he trains.

Matt: Guys, thanks again for an incredible interview!