

A Simplistic Approach to Weight Training For Throwers

By Ron Summers

The objective of this article is to simplify the myriad of information involving weight training for the thrower. The emphasis will be for the high school athlete, coach and masters thrower. I have used this approach for several years now in my personal training and also for athletes I have coached. This approach, which doesn't eliminate the need for a coach in the high school athlete, allows the athlete to become self-reliant. It is relatively easy, effective and can be done over and over with great success.

Cycles vs. Periodization.

Periodization is a very effective way to set up a weight training program. Unfortunately it can be very complicated and requires a huge amount of input from a coach. Most athletes who actively use a periodization program have a full time coach who lays it all out and follows the athlete's progress closely. Often a complete year of workouts are written and based on the percentage system. While this system can be very effective, the athlete must test frequently for the feedback necessary for accurate base numbers. Personally I've always preferred a more intuitive type of training.

Cycling is a much easier program to implement. It is very effective for coaches that have limited access to the athlete. It is easier for the athlete to recognize the short-term goals and whether the progress is on target. Most often cycles are set up on a shorter duration, and testing is only done at the end of a cycle. Because of the shorter duration, they are much easier to alter without affecting a whole year of programs. Cycles can be set up for any duration. I have found that 12 weeks seems to be the most effective in the long run. Short cycles, such as one a thrower might use to peak in season, are usually best when they are at least 4 weeks in length.

12 Week Cycle

I prefer using 12-week cycles for off season strength building. Since most high school throwers are also football players and track season, including indoors, lasts from January to May they can only get one and possibly two 12 week cycles in a year. It is imperative; they maximize the effectiveness of this cycle. Let me break down the make up of a 12 week cycle.

Hypertrophy Phase

The 12-week cycle is made up of 3 phases: hypertrophy, power and peak. The hypertrophy phase consists of 4 weeks of very high volume with low intensity. The rep range in this phase is usually 8-10. The high volume allows the muscle to grow in size.

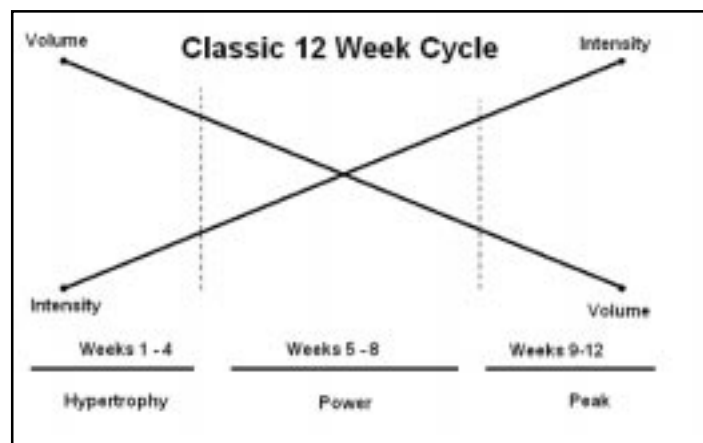
The athlete often becomes very tired during this phase. Strength and performance suffer greatly if large amounts of volume are done. This is why the hypertrophy phase is not practical for in season training. Testing is of little value in this phase.

Power Phase

The second phase or power phase is also 4 weeks in length. This is where the increased size of the muscle is converted to strength. The volume is cycled down as the intensity is increased. The rep range is from 8-4 reps per set. It is important to make sure the athlete uses the proper amount of weight in this phase. To work correctly, the athlete must exert maximal force. If he completes all of the reps too easily, maximum gains aren't achieved. If he uses too much weight and isn't successful with enough reps, success is limited. Most athletes, once they understand the objective, can easily gauge the proper weight to use to make the target reps. If our target for the particular workout is 4 sets of 6 reps, the poundage scheme might look like this. Warm-up, then 225x6, 230x6, 230x5 and 230x2. Since only 5 reps of the third set and 2 reps of the last set were achieved, we would use the same weight the next time we did this exercise. Using the same target if we did 225x6, 230x6, 230x6 and 230x5, we would move the weight up next time. Again using the same target, if we did 225x4, 230x3, 230x2 and 230x2 we would actually move the weight down because of the low number of successful reps.

Peak Phase

This is the fun phase. This phase is also 4 weeks in length and the intensity is very high and volume low. The low volume allows the athlete to be well-rested and eager to work out. The athlete is able to increase poundage and often set personal records. I always tell my athletes if they leave the weight room feeling they should have done more



work, they probably have the program right. This is where testing is most effective and will give you a base to start your next cycle. Rest should always be plugged in at the end of a cycle. It is important to be physically and mentally rested before beginning a new cycle.

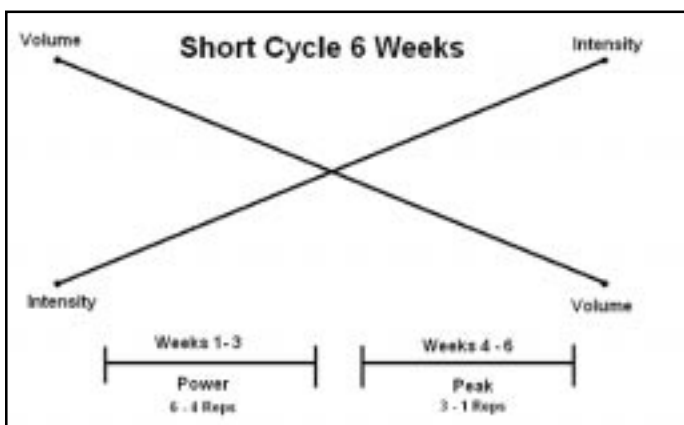
Shorter Cycles

I have used shorter cycles effectively, especially for in season athletes. This might consist of 3 weeks of power phase and 3 weeks of peak, although many different combinations can be used.

The shorter cycle makes it very easy to monitor the athlete's fatigue factor as well as reaching peak strength right before a big meet. It is important though to remember that too much or too little time in any one phase will hinder results. The body soon adapts to the training and quits responding. This is what I refer to as the survival mode. The body recognizes the work load and exerts just enough to get through the workout. This is comparable to the thrower whose workout consists of the same throwing day after day. In the beginning gains are made and success is possible. But as the body adapts, stagnation sets in and distances don't change or actually regress.

Exercises

I divide the exercises into 3 categories, base, athletic and auxiliary. The base exercises involve large muscles and are usually done more slowly and require less coordination. The athletic exercises also involve large muscles but are



done much quicker and explosively. Both of these types of exercises are also referred to as whole body exercises. The third category consists of auxiliary exercises. These exercises usually target smaller more specific muscle groups. Each workout usually targets 2 exercises from each category in the off season. In season only one exercise from each category might be used depending on how close you are to the season peak.

It is hard to attach more importance to either the base or athletic exercises. The base exercises promote muscle growth which enables the muscle to grow stronger. Higher

Base Rep range 1-10	Athletic Rep range 1-5	Auxiliary Rep range 7-12
Squat	Power Clean	Various dumbbell exercises
Lunges	Hang Clean	Dumbbell rows
Bench Press	Power Snatch	Triceps push downs
Deadlift	Hang Snatch	Triceps kick backs
Push Press	Clean & Jerk	Plate twists
Incline Bench Press	Clean Pull	Plate jumps
Bent Over Rows	Snatch Pull	Box jumps
Power Curl		Standing long jumps
		Lat pull downs

reps are easier to perform because the exercises are simpler to perform. It is also possible to work closer to failure without complete breakdown of technique. The athletic exercises are essential for developing power. Power is what enables the thrower to achieve great throws. It is not strength alone but a combination of strength, power and technique that equals success. The athletic exercises require coordination and a higher degree of technique. The lower reps are important because as the athlete tires, the technique breaks down and the exercise become ineffective. To increase work load with the athletic exercises, lower reps and higher sets is the rule. I also don't try to mimic the throwing motion in the weight room. I believe in using the weight room to develop strength and power. The training with the implement will then develop the specific muscles and coordination for the throw itself. I haven't used auxiliary exercises in my personal workouts for several years. This is due mainly to my age (54) and my deterioration of the joints. I include them in my athletes' program because they like to do them. I usually let them pick 2 for each workout and limit them to 2 sets. The exception to this is the jumping exercises. These are essential for the development of the thrower. They promote coordination and strength much like the throw itself. I haven't added any abdominal exercises to the program. These types of exercises would include sit ups, hanging leg raises or event specific exercises such as plate twists for the hammer. Generally these types of exercises can be incorporated into a throwing warm up and can be done every day. In addition, the athletic exercises require use of the core area and strengthen this area of the body.

Reps and Sets

Tons of information has been written on the implementation of reps and sets. It seems everyone has a theory and most of them have merit. How we break down the sets and reps for our cycles is very simple. In the hypertrophy phase we start with reps of 10 and work sets of 3 in the base exercises and reps of 5 in the athletic. We qualify the work sets are once we are fully warmed up in a specific exercise. So a squat workout in hypertrophy phase might look like this. Our target is 3 work sets of 10 reps. So we take 135x10, 185x10, 225x10, 235x10 and 235x10. The work sets being the 225 and 2 sets of 235. The whole goal of the cycle is to gradually drop the reps and add weight through the specific phase of the cycle. In this cycle we will be doing the hypertrophy phase for 4 weeks. So we should do 2 weeks at 10 reps, the third week at 9 reps and the final

week 8 reps. The squat workout for the second week would look like this: 135x10, 185x10, 235x10x2 and 245x10. The third week we would drop the reps and add weight so it would be like 135x10, 185x10, 250x9x3. The fourth we would just continue the progression. It is very important that the coach monitors the level of work until the athlete understands the proper amount required. If the athlete achieves all of his reps too easily, maximum success won't be attained. If the athlete isn't successful with enough reps, gains won't be made. Basically the athlete should be exerting maximum force to get all of his reps in the last set. If he misses one or two reps in the last set, that isn't a problem. But if he is missing reps in the first or second work set, the weight is too heavy and needs to be reduced. I've never been a fan of training to failure or missing reps in the gym. It becomes too easy to rely on the spotter, assuming a little help is acceptable.

The reps and sets change in the Power Phase to 4 work sets of 6 reps in the base exercises and reps of 3 in the athletic exercises. The weights and reps are adjusted just like the previous phase. The weight increases come slower in the athletic exercises so concentrate on speed and exploding the weight.

In the Peak Phase the work sets are 3 or 4 and the reps start at 3 and work down to singles. An easy way to do the peak phase is 1st week 3 sets of 3 reps, 2nd week 4 sets of 2 reps and the last 2 weeks are 3, 2 and max. The athletes love this phase and all of the prior work should be reflected in new personal bests. It is important not to fall in love with this phase because stagnation sets in very quickly and frustration follows.

Let's now set up the workouts in the cycle. Often the workouts are set up as 3 separate workouts such as Monday, Wednesday and Friday. This is the simplest but often times you can include more exercises if 4 workouts are spread over 8 days. I usually try to include 2 or 3 base exercises and 1 or 2 athletic exercises in a workout. I also let the athlete pick 2 auxiliary exercises per workout. The athletic exercises should be done first in the workout while the athlete is fresh. Most throwers will invariably bench or incline first if given their choice.

3 Per Week Workouts

Monday

Power Clean, Bench Press, Power Curls and Lunges.

Plate jumps and 2 Auxiliaries Ab work

Wednesday

Power Snatch, Incline Bench Press and Bent Over Rows

2 Auxiliaries Ab work

Friday

Clean Pull or Snatch Pull, Squat and Push Press

Box jumps, 2 Auxiliaries Ab work

Every other week you might substitute dead lifts for lunges

and Clean Jerks for the pulls and push press.

4 Per Week Workouts

By using the 4 workout approach, it enables you to add more exercises into the scheme. Here is an example of a 4 workout approach.

Monday

Power Clean, Bench Press, Power Curls and Lunges.

Plate jumps and 2 Auxiliaries Ab work

Wednesday

Power Snatch, Incline Bench Press and Bent over Rows

2 Auxiliaries Ab work

Friday

Clean Pull or Snatch Pull, Squat and Push Press

Box jumps, 2 Auxiliaries Ab work

Monday

Clean & Jerk, Dead lift and Lat Pull downs

Box jumps and 2 Auxiliaries Ab work

Now the prior Monday's workout becomes the

Wednesday's and cycles through. This method can be

simplified by pre-printing all of the workouts for that cycle.

Rest

Everyone knows that hard work is essential for success in throwing. But just as important is proper rest. When the athlete becomes physically or mentally fatigued success isn't possible. Even experienced athletes get frustrated and discouraged during high volume work periods when their performance suffers. Rest should always be plugged in at the end of a cycle. The coach, until the athlete is experienced at training with weights, must monitor his athlete and ease off during the cycle or skip a workout all together. Often times a long weekend at the end of the hypertrophy phase is needed to give the body a little recuperation. I try to monitor the quality of throws in practice. If the thrower is lacking energy or explosion, I usually let him skip the weight workout. Mental fatigue can be just as bad as physical fatigue. If the athlete is constantly dreading his weight room workouts he will not be successful.

In Season Cycle

I will show you an example of an in season cycle that we have used successfully this year at the Div. 3 College where I volunteer coach. Our indoor season from first practice to indoor conference meet is 9 weeks. We want to peak our strength 2 weeks before our conference meet. This year we ended up maxing out 13 days before our conference meet. We had 6 throwers of which 1 was female and 5 males. Our female was injured off and on through the season so couldn't complete the cycle. One male was a freshman, who we didn't have lifting data for. One male was injured and couldn't lift or throw. Two of the males were sophomores and threw both shot put and weight. The final male was a junior and only threw the weight. Last year I thought we ended up the outdoor season tired and plagued by small nagging injuries. I also wanted to increase our throwing volume this year. With these considerations this is the cycle I set up. Our three males all

set personal bests when we maxed out or at least attained pre-football season strength levels.

Our 8 week cycle consisted of 3 workouts per week for the first 6 weeks. The last 2 weeks we went to 2 workouts per week. Our weekly workouts broke down like this:

Sunday

Squat, Push Press and the auxiliaries of their choosing

Monday

Power Cleans, Power Curls and Incline Bench press and the auxiliaries of their choosing

Wednesday

Power Snatch and Bench press

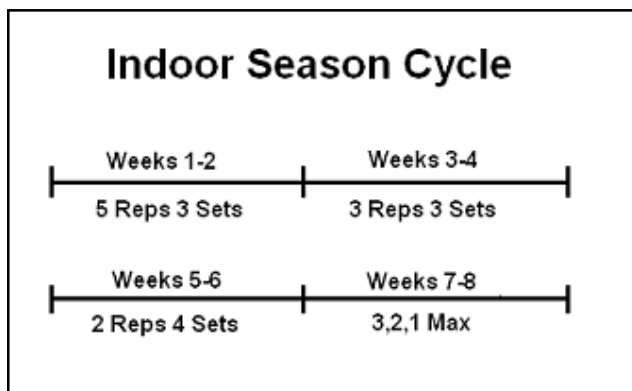
The first 2 weeks we did 3 sets of 5 reps

Second 2 weeks we did 3 sets of 3 reps

Third 2 weeks we did 4 sets of 2 reps

The final 2 weeks we did reps of 3, 2 and 1.

We kept the weight room workouts limited to 45 minutes



Sunday	Monday	Wednesday
Squat	Power Clean	Power Snatch
Push Press	Incline Bench Press	Bench Press
	Power Curls	

and as you can see concentrated on just a few exercises.

I hope this article has simplified weight training schemes for you. Once the athlete or coach gains experience using cycles, it becomes easier to adapt them for personal success. I have personally used this or a slight variation for my training the last 8 years. I compete in Masters Track as well as Masters Olympic lifting, and it has served me and the athletes I have coached very well.