

Periodized Training

Strength experts have long agreed that chronic high intensity lifting actually lowers performance. Indeed, training without periodic changes in training objectives inevitably leads to burnout and injury.³ In order to avoid these negative effects and to bring lifters along gradually, the coach should arrange contest preparation in a periodized fashion.

Periodization, then, is really another way of saying peaking.⁴ The basic premise behind the periodized training model is that the body must be moved in a systematic step like fashion, through various cycles or phases, toward a maximum performance level.⁵ The following phases are most applicable to powerlifting training.⁶

- Phase 1 Hypertrophy
 high volume - low intensity (high sets and reps, low weights) in squat, bench press and deadlift
 general assistance exercises
- Phase 2 Basic Power and Strength
 medium volume - moderate intensity in squat, bench press and deadlift
 more specific assistance exercises than in phase 1
- Phase 3 Maximum Strength
 low volume - high intensity in squat, bench press and deadlift
 none, or few assistance exercises
- Phase 4 Transition
 complete rest if between contest cycles (1 or 2 weeks)
 active rest if at end of competitive year (more than 2 weeks)
 low intensity and low volume general lifting
 none, or very light squats, bench presses or deadlifts
 games and aerobic training

In preparation for a first contest a lifter might follow a periodized peaking cycle with the following volumes applied to the three main lifts. Notice the linear progression of this particular model; with each successive week as the volume decreases the intensity increases.

WEEK	SQUAT	BENCH PRESS	DEADLIFT	PHASE
1	3x12*	3x12	3x10	Phase 1
2	3x10	3x10	3x8	
3	3x8	3x8	3x7	
4	3x6	3x6	3x6	Phase 2
5	3x5	3x5	3x5	
6	3x4	3x4	3x4	
7	3x3	3x3	3x3	Phase 3
8	3x2	3x2	3x2	
9		contest week		
10		transition period (complete or active rest)		Phase 4

* The numbers expressed refer to work sets only, they do not include warm-up and unloading sets. For example a week 5 squat workout might look like this.

60 x 8 , 80 x 6 (warm-ups) / 100x5, 100x5, 100 x 5 (work sets)/ 70 x 10 (unloading)

This table is an example only; it can be modified in a number of ways to suit novice, intermediate, or advanced powerlifters. For example, the phases can be lengthened to four and even five week blocks, although more than four is not recommended for the maximum strength or contest phase. Also, volumes can be adjusted according to the training background of the individual. Thus, a well conditioned athlete or a seasoned veteran lifter may need four or even five work sets in the target range to stimulate progress.

An entry level lifter should not jump immediately into such a training scheme, unless they have established a base level of strength. Thus, it is advisable that a true novice put in a few months of general weight training and technique work, on the lifts to be cycled, before starting a periodized program. Besides, strength gains will be made in the beginning stages, regardless of the approach; so, very careful monitoring of the training variables is not absolutely necessary.⁷

After a base has been established, and when preparing for a first contest, the novice should not place too much emphasis on Phase 3 (maximum strength) type training. Indeed, one or two weeks of triples on the various lifts would be more than adequate preparation and they will give the athlete and coach a good indication of what maximums can be expected on competition day.

Training Frequency

The number of workout sessions in a weekly time block is a subject for much debate among powerlifting coaches. Indeed, some advocate three sessions in a seven day period, while others believe in more frequent workouts. Whatever the preference, it must be understood that maximum strength gains are only possible with proper rest and recuperation. What follows is a basic guideline for setting up schedules on both a three and four day basis allowing for adequate restoration of the muscles.

Sample 3 Day Powerlifting Schedule (Phases 1 and/or 2)

Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Squat (heavy)	rest	Deadlift (heavy)	rest	Bench (heavy)	rest	rest
Bench (light)		assistance work		Squat (light)		
assistance work				assistance work		

Sample 4 Day Powerlifting Schedule (Phases 1 and/or 2)

Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Squat (heavy)	Bench (heavy)	rest	Deadlift (heavy)	rest	Squat (light)	rest
assistance work	assistance work		assistance work		Bench (light)	
					assistance work	

The above schedules allow for two squat and bench press workouts per week and one deadlift session. The single deadlift session is advocated in the interest of recovery. Indeed, both the squat and deadlift make demands on the leg, lumbar and gluteal muscles, so it is not necessary, nor advisable, to train both lifts twice in a weekly block. Also, since the deadlift is a very taxing movement, the squat workout which follows later in the week should be light.

As for what constitutes light and heavy in a weekly program, one need only refer to the above section on RMs and training intensity. Thus, a heavy session in week 2 of Phase 1 calls for 3 sets of 10 reps at 100% of a lifter's 10RM, while the light day calls for the same sets and reps at 85% of weight lifted on the heavy days. In the following example the lifter is able to handle 100 kilos for 10 reps so his or her two squat workouts would have these values:

Monday - Squats (heavy)

60x8 80x6 / 100x10 100x10 100x10 / 70x10

Friday - Squats (light)

60x8 / 85x10 85x10 85x10

These same percentages of various repetition schemes [100% (heavy) and 85% (light)] can be employed for all core lifts throughout all training phases. Again, the designation heavy and light in this context does not refer to 1RMs, but to whatever the lifter can handle comfortably for the target number of repetitions in that week.

Exercise Order

In designing powerlifting programs the coach should pay careful attention to exercise order. For the most part, the squat, bench press and deadlift should be performed before their related assistance exercises. After all, the core movements require a greater expenditure of energy and attention to technique, and should, therefore, be done when the athlete is freshest. An exception to this rule can be made in transition phase training.⁸

During workouts in which more than one main lift is being performed, pertinent assistance exercises can immediately follow a lift or they can all be placed at the end of the training session.

Example 1

Monday Session

Squat
Front Squats
Bench Press
Close Grip Bench Presses

OR

Example 2

Monday Session

Squat
Bench Presses
Front Squat
Close Grip Bench Presses

As you can probably see, there are advantages to both orders. With Example 1 the athlete moves directly to an assistance movement following a core lift, and, subsequently, there is little need for excessive warm-up for the supplementary exercises. With Example 2, the two core lifts are performed first with all assistance movements to follow. This grouping allows the partly fatigued muscles a brief recovery period before they are taxed again. Of course, with the latter system, when the assistance exercises are started they may require more attention to warm-up.

Warm-Up and Cool-Down

Every training session should include a time period to prepare the body for vigorous exercise and a time period to gradually slow down physiological functions. These time periods are usually referred to as the warm-up and cool-down portions of a program, and are often ignored by powerlifters.

The warm-up does not have to be an exhausting process—it should only serve to raise the core temperature of the muscles. A few minutes of easy rhythmic activity such as stationary biking or skipping will suffice, or the lifter may choose to do a number of very light, high repetition sets of a multi-joint lift (i.e. squats with a stick or light bar) to get the blood circulating to the muscles. In cool training areas the lifter may require a heavy warm-up suit in order to reduce the time of the warm-up.

A good sign that the warm-up has been achieved is when one "breaks a sweat". Once this point has been reached the lifter can perform a few lift specific stretches and then gradually move on to heavier lifting in progressive jumps.

The cool-down portion of the workout is every bit as important as the warm-up and main lifts. Indeed, following strenuous work the muscles must be gradually brought back to as relaxed a state as possible in order to remove accumulated lactic acid and thereby, speed recovery. It is suggested that strength athletes spend a minimum of 10 minutes at the conclusion of their workouts gradually stretching out the muscles most taxed during the main body of the exercise session.⁹

The Training Log

In order to insure that training schedules are followed closely, coaches should instruct their lifters to keep training log books. Keeping precise workout records places a measure of responsibility on the athlete and makes the individual feel part of the planning process. Of course, accurate records are also a valuable tool for tracking gains and setting target weights during exercise sessions.

Sample Workout Record Sheet		
DATE : Oct. 8		
START TIME : 7 PM.		
PHASE : 2	WEEK : 5	DAY : 1
WARM-UP (Particulars) : Lifecycle - 12 minutes level 6 leg stretches - 5 minutes		
MAIN EXERCISES (sets/reps/wt.)		
Squat -	20 x 12 , 60 x 6 , 80 x 4 / 100 x 5 , 100 x 5 , 100 x 5	
Bench Press -	20 x 12 , 40 x 6 , 60 x 4 / 70 x 5 , 70 x 5 , 70 x 5	
Incline Leg Press -	90 x 8 / 180 x 8 180 x 8	
Close Grip Bench Press -	40 x 8 / 50 x 8 , 55 x 8	
Sit-ups -	25 x 2 sets	
Back Raises -	15 x 2 sets	
COOL-DOWN (Particulars) - full body stretching routine - 12 min		
COMMENTS OR OBSERVATIONS - good squat workout - used knee wraps on sets of 5. Bench Presses felt heavy.		
FINISH TIME 8.50 PM.	TOTAL WORKOUT TIME: 1 hr 50 min	