



Designing a Thrower's Training Program

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Review of Training Cycles

- Macrocycle (training for the season)
- Period (1-4 months)
- Phase (1-2 months)
- Mesocycle (2-6 weeks)
- Microcycle (5-10 days)
- Session (1-3 hours)

Planning a Training Year

- Decide what the final objectives you are looking toward for the year?
- What are the most important meets? This will usually be when the “peak” will occur.
- Work backwards from the most important meets in setting up the preparation periods and phases.

Planning a Training Year

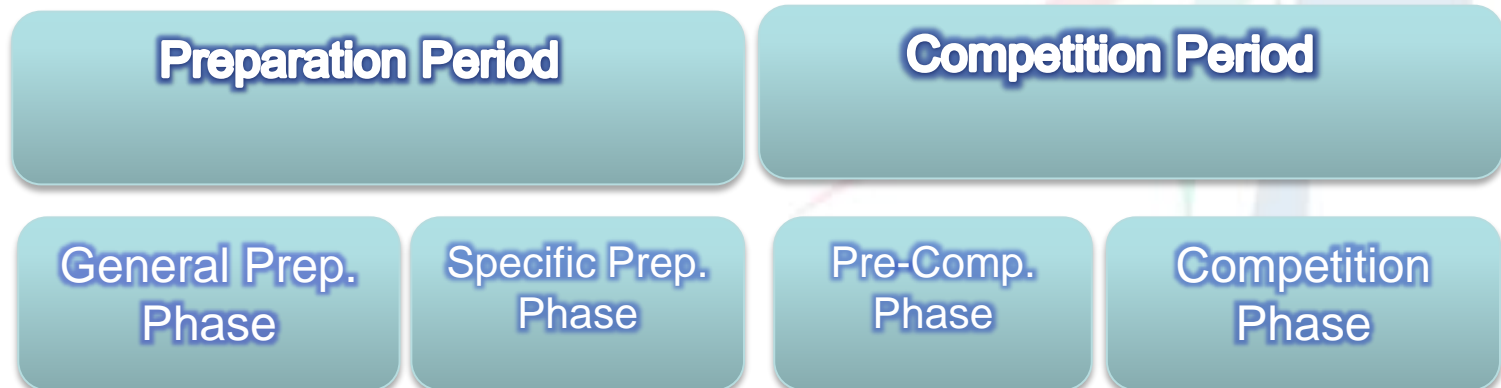
- Will there be a single peak or a double peak?
- Are there any special restrictions (weather, school, etc.....) that need to be considered when deciding the durations of the periods and phases?

Planning the Periods

- In general, the older the training age the longer the special preparation periods will be, and therefore the shorter the general preparation will be.
- The length and duration of the period(s) will be dictated by the time one has between the beginning of the general preparation to the most important comps.
- The periods are generally broken up into the preparation period and the competition period.

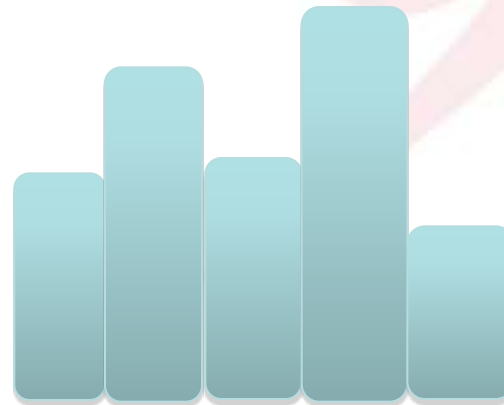
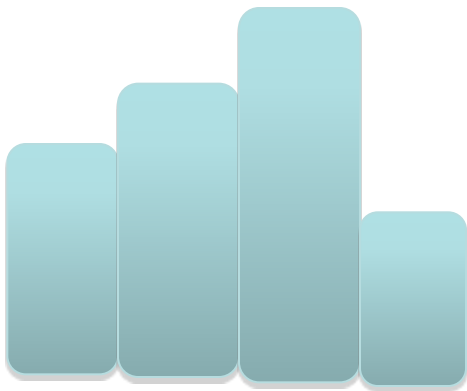
Planning of the Phases

- The preparation period is generally broken up into the general preparation phase and the specific preparation phase.
- The competition period is usually divided into the pre-competition phase and the competition phase.



Planning of the Mesocycles

- Can be adjusted anywhere from 2-6 weeks.
- An active rest week should always be put in at the end each mesocycle.
- There can be a lot of adjusting (in both length and volume) from mesocycle to mesocycle based on how the athlete is responding to training.



Planning of the Microcycle

- The microcycle can last from 5 to 10 days.
- The most common length is seven days because it fits into one week.
- A complete rest day is usually inserted into the microcycle in weekly intervals.
- Heavy and light days are alternated in various combinations:



Planning a Microcycle

- Within a microcycle throwing sessions should be set up first to get the optimum spacing between workouts for proper recovery and prevention of overuse injuries.
- Throwing sessions can be alternated in terms of volume/intensity, and spaced out in a way to even the throwing volume within a given microcycle.
- Throwing volume can be altered in many ways and can be determined by the (1) number of the throws, (2) intensity of throws, (3) weight of the implement that is thrown.

Planning a Microcycle

- An example of altering throwing volume (with a fixed intensity).
- **Reese Hoffa**: on tired days after returning from a long trip: 6.6kg shot. Somewhat tired day while in the middle of a training cycle: 7kg. When he is fresh and getting ready of a meaningful competition: 7.26kg

Planning a Microcycle

- Lifting sessions should be spaced out so there is enough recovery between core lifts (such as the Olympic Lifts & Power Lifts)
- Squats and squat variations usually require the most time to recover from, and should be placed accordingly within the workout scheme relative to the throwing session

Planning a Microcycle

- **General Preparation (Ming-Huang Chang):** February 28th-March 25th, 2011

<u>Week</u>	<u>Power Lifts</u>	<u>Olympic Lifts</u>
1	x8x8x8x6x6	5x6
2	5x6	x6x6x6x5x5
3	x6x6x6x5x5	5x5
4	5x5	x5x5x5x4x4

- **Monday**

Cleans (see Olympic reps)
Walking Lunges 3x10 each leg
Seated Rows 2x10
Reverse Leg Raises 2x10
Walking Twists 2x24 steps
8x50m sprints up to 80%

- **Wednesday**

Stretch & Loosen up
**Back Stabilization exercises

- **Friday**

Front Squats (see Power reps)
Hip Raises on box 3x10 each leg
Hanging Leg Raises 2x10
Lateral Arm Raises 2x10
Lat Pull-downs 2x10
6x100m build-ups after lifting

- **Sunday**

REST

- ****Please do your back stabilization exercises as prescribed by the doctor for your back three times a week if not more.**

- **Tuesday**

Bench Press (see Power reps)
Seated Military Press 2x8
Back Hypers 2x10
Supermans 2x12
Aerobics with weights 2x10 each side
Agility Circuit (pick 6 exercises 2x20m each)

- **Thursday**

Hang Snatch (from hip up to 60kg) 5x5
Step-ups 2x8 each leg on ~40cm box
Dumbbell Flies 2x10
Gunthor Twists 2x8 each side
Side Pedestals 2x30 seconds each way
6x10m high knees into 20m sprint

- **Saturday**

"10 Minutes of Hell" ,**add time each week**
Ball throws for height w/7-8kg med ball 2x10

Planning a Session

- There can be one to three sessions a day.
- Length of each session can be from 30 minutes to 3 hours.
- The length of each session should only be as long as good quality can be maintained.
- Session duration includes warm-up and warm-down times.

Planning a Session

- In terms of order of tasks, the level should go from most complex to most basic.
- Throwing usually comes before running.
- Depending on the type of running and bounding, this can come before or after lifting depending on the desired training effect, although many times schedule will dictate the order.

Planning a Session

- In terms of exercise order, for weight training the exercises should go from complex, multi-joint exercises such as the Olympic lifts to more simple, single joint exercises such as a side-bend.
- In terms of throwing, fine motor movements, such as throwing a javelin off an approach should come before something like a medicine ball workout.

Testing Protocol

- There need to be ways of evaluating whether the training plan is staying on course and doing what it is supposed to do.
- Tests can be inserted into the training plan on a weekly basis (one per microcycle), monthly basis (one per mesocycle), or at the end of a training phase.

Testing Protocol

- Weekly tests: overhead or underhand shot, standing long jump.
- Monthly tests: Test Quadathlon (30m sprint, 3-hops, SLJ, Overhead shot), weight lifting tests (1 RM, 3RM)
- End of Phase: Abalakov test

Testing Protocol

- Overhead Shot Throw
 - Perform once a week on the same day, at the same point of the session each week.
 - It can be used as a test of CNS fatigue.



Testing Protocol

- Abalakov Test:
- Is a variation of a vertical jump test.
- Steep slope suggests further gains from weight training, flat line suggest gains are maximized.

