Periodization--Peaking

Bruno Pauletto, M.S., C.S.C.S.
Strength and Conditioning Coach
University of Tennessee
N.S.C.A. State Director

Periodization and peaking are synonymous, and mean the systematized or organized training so the athlete or team reaches optimal performance at a designated time. The coach sets up a training schedule over a period of time that will lead to maximum performance. The hard part is to organize the training schedule so the athlete will be at his best at the right time.

All the literature that I have reviewed in the past years on periodization deals with peaking for a single competition and is mostly applicable to individual sports like track and field, weight lifting, etc. The only thing that counts is winning the "big one." For some it might be the regional championship, for others it might be the Olympic Games. What is similar in all these sports is that the win-loss ratio before the "big one" is not important just as long as the athlete has qualified for the championship. If the athlete does his best or wins the championship, that is all that counts.

Since the championships are at the end of the season, the season itself becomes part of the periodization for the championship.

Example: The athlete wants to get his best squat close to the championships, not before the season starts. During the season he will continue increasing his squat. He will sacrifice optimal performance early in the season so to get a better return at the end of the season.

You might be saying to yourself that if the athlete is in great shape before the season starts he should win or do well in all the competitions and the championships themselves.

This statement is partially true. You always want the athlete as prepared as possible by the start of the season. The problem arises when you have to accept the fact that the athlete cannot be at an optimal level of performance for a long period of time. He can be in great shape and strength all through the season, but not at 100 percent capacity for the whole season. Because of this, you have to schedule your training program so that the athlete will be at 100 percent capacity when the championships come around.

Example: If the athlete reaches his all time best squat before the season (400 pounds), it will be hard for him to keep squatting at that high intensity for the next 10 weeks. If he approaches the season with a good squat (375 pounds) and continues to improve during the first part of the season in order to get his 400 pound squat close to the championship, then his periodization was a success. He has reached his best just in time for the championship.

I hope you can see the fine line. Yes, be good and ready at all times during the season, but if only one competition really counts, sacrifice a little during the season for you to be at your best for the championship.
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Peaking for a Season

Reaching optimal performance for sports like football and volleyball where all games are important is quite different than reaching max performance for just one competition. If the athletes are not ready when the season starts they will probably lose the first couple of games, which will almost eliminate any chances of a championship. To reach the championship in these sports, all games are important, contrary to sports like track and field and olympic lifting.

When training for these sports, the athletes have to be at their best by the first game. All the preparatory work has to be done in the pre-season and kept at a high level during the in-season.

Example: The athlete trains very hard in the pre-season to bring his squat to an all time best close to the start of the season. Now he will try to maintain his leg strength during the season.

As you can see, this is quite easy. Get in the best shape possible during the pre-season and start the season with a “bang.” Things get somewhat complicated when the athlete reaches his best before the season. What will happen to his strength and conditioning during the next 12 weeks? How can the athlete stay at his best for the duration of the season? To get some answers, we need to look at another principle called tapering.

Tapering is the slowing down of the intensity and duration of the workout to reach maximal performance. When the shot putter is close to his championship he starts tapering. He will reduce the work load, rest more and get the body recharged and ready to go all out the day of the championship.

Example: The shot putter reaches his best squat (500 pounds) two weeks before the championships. The next week he will work to 450 pounds and the last week to 400 pounds. Of course, he loses no strength during those two weeks. While still doing a good work load (80 to 90 percent) his body is getting looser, more relaxed and not as stressed. The day of the competition he is rested and ready to go all out.

In some instances, some athletes will start their taper four to six weeks before the big day, slowly decreasing the intensity of the workouts and increasing the technical work on the field.

When tapering for sports where all games count like football, the athlete has to keep a taper for each game. This is difficult because if they are training too hard (overtraining) they will play the game on the practice field or weight room and not be ready by game day. On the other hand, if they do not train hard enough (undertraining) they start losing strength, speed, conditioning and will also not be at their best by game day, especially at the end of the season.

One thing is for sure: the athlete cannot work on strength and conditioning as hard as he did in the pre-season. At that time, all his energy was devoted to strength and conditioning. Now he has to leave room for practice and games. The strength and conditioning has to be tapered to accommodate the new stress put on the body.

Example: In the pre-season the athlete was able to work in the 500 pound range on his heavy squat day. Now the season starts and he has to spend a lot of time on the field. Because of all the running, hitting, etc., he can no longer work at the 500 pound intensity as he did before the season started. This is normal and has to be accepted. Now on his heavy day he might be able to handle only 450 pounds. This is fine because he is doing the best he can do under the new circumstances.

It should be obvious that the longer the competition season the longer and harder the pre-season. If the athlete has to be at his best for 12 weeks while tapering each week for a game he must have a very solid background (pre-season).

Example: The athlete tries to get his legs as strong and conditioned as possible because he knows that during the season he will not be able to train as hard. He will be squatting less weight than he did during the pre-season. To keep his legs from overtraining he will decrease from 500 pounds to the 400-450 pound range. If he was able to squat 600 pounds in the pre-season now he could work in the 500-550 pound range. As you can see the better numbers you get in the pre-season the better off you will be in-season.

To maximize training even more during the season, the coach can look at the game schedule and see which one or two games are critical to the season. If a “must win” game is preceded by an “easy” game, then more work can be done before the “easy” game. The week before the “must win” game training would be somewhat less intense than usual. Remember, we are talking about strength and conditioning, not practicing the sport. Some coaches may think that the athlete should train harder than usual the week before the big game. I disagree. At this time training should be decreased so the body can recuperate and be fresh for the game.

TIPS TO REMEMBER:
1) The longer the season the longer the preparation before the season. This is usually a 2 to 1 ratio. If the season lasts 12 weeks, the pre-season preparation should be at least 24 weeks.
2) Time after time we see that it is not always the best team who wins, but the one best prepared at the right time. Peaking at the right time has its theory: periodization.
3) During the in-season, strength and conditioning workouts need to be reduced in intensity and duration so to accommodate the new stress put on the body by practice and games.
4) Tapering for a whole season is quite complex. The team cannot go all out for just one or two games. The taper and work load must be spread out for all games.