

Periodize Your Progress

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What is periodization?

In the 1960's, a Russian physiologist named Leo Matveyev created the concept of periodization for strength training. In the running world, distance running coach Arthur Lydiard used the concept of pyramid training layering aerobic base building at the bottom and peaking to race day performance at the top. Periodized training is a way to systematically optimize an athlete's peak fitness as well as recovery, prevent overtraining, and reduce risk of injury. A training program should include alterations in frequency, intensity, and total volume over time. The goal of periodization is to provide periods of overload followed by varied recovery creating higher and higher levels of adaptation in the body. Ultimately, a year-long training program can be organized in cycles to progressively improve performance.

Traditional Periodization vs. Reverse Periodization

The traditional model of periodization begins with a lower intensity base building approach progressing to higher intensity peaks and valleys. The phases in this model may be titled and broken down into areas such as Endurance, Strength, Speed, Race, and Recovery:



PRO's of Traditional Periodization

- Allows for the gradual building of strong aerobic energy system pathways at a lower intensity with minimal risk of injury
- Allows the gradual repetitive light loading of the structural properties of the body (tendons, ligaments, joints, etc.) before the heavy mechanical loading of force by the muscles
- Allows for the development of efficient fat metabolism for energy production

CON's of Traditional Periodization

- May be challenging training longer during the off-season in fall/winter months when it is typically colder and days are shorter
- May be limited by a specific race prep phases if endurance falls behind schedule leading to the lack of improvement in strength, speed, power

The reverse periodization model involves shorter higher intensity training in an athlete's off-season then blending in longer aerobic work as the race season approaches. The phases in this model run in reverse and may be titled FTP Power (functional threshold power), Transition, Race Prep, Race, and Recovery:



PRO's of Reverse Periodization

- Allows for the development of FTP power in short specific micro-cycles
- Allows for the training of more specific race conditions and distances closer to actual races (for longer race lengths)
- Allows for shorter training sessions during colder fall/winter months with less daylight hours and lengthened training sessions during warmer spring/summer months with longer daylight hours...especially helpful if motivation is lower for indoor training

CON's of Reverse Periodization

- May be challenging to stay mentally focused during the FTP power phase with a race season so far away
- May peak too early for a race if progression is too fast through race preparation due to feelings of higher levels of fitness early in the season
- Those with little to no aerobic capacity may be better off building a base of fitness first

Which is better?

There are many coaches and athletes that have achieved great success using both models of training. The choice is to choose a model that works for you and/or your team (participants). The consensus is to change the training model you are using if you or your athletes reach a plateau in performance or modify the phases of training based on the adaptations occurring in the body. In indoor cycling classes, clubs could promote different training models to meet the needs of athletes training in off-season and leading up to race day. By offering traditional and reverse periodization training models and the benefits of each system, instructors would have the opportunity to teach a greater variety of classes and the athletes (participants) would have the opportunity to choose the training phase suited for their needs.