

Building a Strength Training Program for Running

Strength training is an integral component of any endurance training program. Specificity is key, with the ultimate goals of ensuring muscle balance and improving run specific performance.

All results-oriented training programs involve changing key variables over time in order to maximize results while balancing overload and recovery.

The evolution of the strength training program over the course of the training season is called "periodization". Periodization is a method of building on previous goals or abilities and the gradual cycling of blocks of time in which specificity, intensity, and training volume are varied to achieve peak levels of fitness.

The following describes five suggested cycles that can act as a guideline when a runner is designing a strength training program which corresponds to their own specific running program. Each cycle has a specific physiological goal and builds on the results of the previous cycle.

1. General Strength Training (Base) – 3 to 5 weeks

The goal of this phase is to improve basic overall strength. This early phase of strength training creates the foundation on which more intense and specific strength exercises are performed later in the program. Strength training in this phase is recommended at 2 to 3 times per week, with 2 to 3 sets of 12 to 18 repetitions. Exercises in this phase should be more general in nature and focus on large muscle groups. Examples include push ups, squats, and lunges.

2. Run specific Muscle Emphasis (strength, power) – 3 to 5 weeks

In this phase, the goal is to put more focus on strengthening the muscles specific to running. This will increase the athlete's power level and prepare the muscles and connective tissue for plyometric exercises which will be included in the next cycles. Examples of exercises included in this phase include step ups and single leg squats.



3. Run specific Movement Emphasis (power, sharpening) – 3 to 5 weeks

This phase introduces plyometric exercises, which are high intensity exercises that closely mimic motions that are involved in running. General strength and run specific strength exercises should still be included in the program once per week at this point. Strength training should be done a total of twice per week at this stage. Examples include stride jumps and lunge jumps.



4. Fine Tuning (Sharpening) – 2 to 3 weeks

The goal of this phase is to pick out the athletes specific weaknesses in the sport and work on them. The athlete should have achieved their peak by the end of this phase.

5. Maintenance

The maintenance phase takes place throughout the racing season. The goal is to maintain the level of strength the athlete has gained from the previous cycles for the duration of the race season. Workout sessions are short, emphasizing quality rather than quantity. Strength training frequency should be once per week, incorporating exercises from general strength, run specific strength and plyometrics.

An appropriate strength training program is an integral part of any endurance training program. When done properly, strength training will help an athlete avoid injuries but also increase their strength, fitness and ultimately their performance. The key will be to ensure the program is specific for running, takes into account the athletes individual goals and abilities, and is progressed with proper cycles of specific overload and recovery. The phases suggested above will help in designing the progression of exercises and intensity over time.

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