

Principles of Athletic Training

Based on "The 24 Consensus Principles of Athletic Training and Conditioning" Track Coach #148

Athletes should *understand training principles* and actively participate in analyzing their training goals. The athlete must be willing and able to undertake individual training assignments without coaching supervision.

There are differences in age, gender and training age. *Each athlete will react differently*. No effective training program can be a copy of another athlete's program. A training program for everyone is a training program for no one.

All athletes will be what they are physiologically trained to be. Exercises specific to an event will lead to anatomical and physiological changes related to the demands of that event.

The more force an athlete can apply to the ground, the faster they will run. Training will be *exercises and drills that apply force with the feet against the ground*.

Training must occur at the same intensity and duration as the athlete will face in competition in order to develop the proper energy systems predominately used. Sufficient rest intervals must be long enough for the athlete to recover the amount of energy necessary to meet the demands of the next training effort.

The athlete should be *gradually put under increasing stress* during training. Run at top speed in only a few training sessions - not more than 10 seconds and/or 10 reps.

Through proper training the body's nervous system learns to recruit more motor units so that more force can be generated. *"Neurons that fire together, wire together."* Training with free weights allows more fast-twitch muscle fibers to be recruited.

Variation in training allows the body to adapt. Training will vary the duration and intensity of different workouts and drills. Some workouts will be hard and other days will be light to moderate.

Warmup is misunderstood. Warmup does not involve stretching. Static stretching does not prevent injuries. Warmup involves doing low-intensity activity to help get the blood flowing to the working muscles in preparation for high-intensity tasks. Body temperature needs to increase 1-2 degrees. Stretching is best done as part of the cooldown session. Cooldown helps get the metabolic waste in the blood away from the working muscles.

Rest allows the biomotor systems to regenerate. *Rest and recovery is specifically built into training* during drills and is part of training after drills. Always allow full recovery (heart rate = < 120 bpm) between runs.

Every athlete should be *eating proper meals and getting sufficient sleep*.