Achieving Aerobic Fitness in Untrained Individuals

The first few months of each New Year finds a host of untrained individuals looking to start a fitness program. For many, the goal is to lose weight and improve their general fitness. For "athletes," the end of the winter months means it is time to ramp up (or start) their training for spring sports (i.e., field sports, soccer, tennis, etc.). To meet their fitness and athletic goals, both groups will need to initiate an aerobic training program.

What is Aerobic Exercise?
Aerobic exercise is the performance of moderate (or higher) intensity exercise for an extended period of time. For the fitness client, improving aerobic fitness will have positive effects on his/her cardiovascular and pulmonary systems. For an athlete, improving cardiovascular fitness will increase one's endurance allowing for prolonged training prior to the onset of fatigue.

Aerobic Exercise Prescription for the Untrained Individual
The Centers for Disease Control and Prevention (CDC) have published physical activity guidelines that should serve as baseline training goals for most individuals (1). Table 1 presents a summary of baseline training goals for adults and older adults.

Examples of activities that would be considered "moderate-intensity" include swimming, brisk walking, or bicycling (2). Examples of "vigorous-intensity" exercise include jogging and intense bicycling (2).

To improve aerobic fitness, an individual should attempt to achieve a sustained heart rate for a prolonged period of time. In general, performing activity at 70% of one's maximum heart rate (220 – individuals age = max heart rate) will allow for improvements in cardiovascular fitness (see table 2) (1, 3). An athlete may be able to train at a higher percentage of one's maximum heart rate (≈ 90%) (3).

Conclusion
An aerobic exercise program should be gradually progressed. A certified strength and conditioning specialist (CSCS) will be able to appropriately test one's baseline fitness level and develop a safe and effective cardiovascular fitness routine.

References
