Aerobic Fitness

Aerobic fitness is an important part of measuring one's physical fitness. It explains how efficiently the body can transport and utilize O_2 to perform exercise or physical activity. Aerobic capacity is measured in VO_2 (mL/kg/min) which is a value indicating that utilization O_2. There are two ways to measure the aerobic capacity of an individual, maximal and submaximal testing. Maximal testing is difficult to administer to the general population due to the high intensity of the tests and maximal exhaustion. An easy way to test aerobic fitness for the general population in an inexpensive and safe manner is to use a mCAFT (modified Canadian Aerobic Fitness Test). The mCAFT is a submaximal aerobic step test that can predict maximal aerobic fitness without maximal exertion. The step test is beneficial because it can be performed on every population and isn't stressful because it is ceased when any steep increase in exertion is experienced. This is determined by calculating 85% of an individual's maximum heart rate and when that value is reached, the test is stopped and max aerobic fitness is linearly predicted. Subjects walk up and down a set of double in a timed manner. The speed at which the stepping occurs increases with each stage. Once rhythm is broken or pain/discomfort is experienced, the test also stopped. Heart rate throughout the test is measured by using a heart rate monitor that is strapped to the subject and can easily be observed using a wristwatch.