Overload

Overload is necessary in order to develop fitness in all exercise-related fitness components: cardiorespiratory (aerobic) endurance, muscular strength, muscular endurance and flexibility. According to the principle of overload, a person must work (load) the body in a higher manner than normal in order to improve fitness. For improved cardiorespiratory endurance via walking, for example, this means walking faster or farther or more times a week than usual. Muscular strength and muscular endurance overload means contracting the body’s muscles for a longer period of time, or more frequently during the week, or adding weight to the number of repetitions performed. Flexibility improvements require stretching more often or holding individual stretches for longer periods of time, or stretching beyond the usual point of flexion or extension.

Many people claim their fitness goals are not being met, even through exercise. Violating the principle of overload may be one reason for the lack of improvement. Although an individual may be pursuing an exercise program, overload may not be occurring, resulting in a lack of adaptation, or improvement. For example, a leisure walk around Green Lake may not be overload for an active young person. Conversely, a person’s fitness goals may go unmet if “overload” is taken to an extreme through overexertion. Exercising too long, too intensely, or too frequently may lead to exhaustion after each workout and, subsequently, increase risk for injury. The individual may also become discouraged with the lack of positive results and eventually drop out of an exercise program.

**Overload is a relative term, not meaning the same for all people. A run around Green Lake may be overload for a beginning jogger, too much overload for a sedentary person, or not enough of an overload for an endurance runner.**
Specificity

The principle of specificity means only those body parts, muscles or systems involved in a workout will be the ones to experience training. For example, weight training the upper body will lead to improvements in arm, shoulder and back strength, but will probably not allow improvements in the body’s ability to perform squats or lunges—activities associated with lower body strength. Similarly, if a person swims four times a week to improve fitness, he or she will experience gains in cardiorespiratory (aerobic) endurance, but will not necessarily experience great flexibility benefits, needed to improve performance in yoga class.

Progression

As a person's fitness level improves, he or she will need to make adjustments to the exercise program if continued improvements are desired. That is, what used to be overload may no longer be sufficient. Frequency, intensity or amount of time ("FIT Principle") dedicated toward the individual's exercise program may need to be changed for continued fitness enhancement.