How Much Exercise is Enough?

by Paul Mayer, assistant professor of fitness and lifetime sports

The fitness fad of the 1960s is alive and well as the fitness trend of the 1990s, and awareness of the importance of regular physical exercise is greater than ever. This fact is reinforced by the number of Americans participating in exercise activities, the use of fitness concepts in commercial advertising and the multi-million dollar fitness industry including: fitness facilities, equipment, and products — all aimed at capitalizing on societies' desire to achieve a healthy, physically fit mind and body.

Still, many exercise participants and potential participants are still confused about what constitutes an exercise training effect. The following guidelines should help clarify the question, "How much exercise is enough?" and demonstrate that fitness exercising can be simple and attainable for almost everyone, regardless of age or physical condition.

Aerobic Fitness

Aerobic fitness is synonymous with cardiovascular fitness, or fitness of the heart and circulatory system. Aerobic fitness is considered to be the most important component of exercise fitness. Aerobic fitness should be the primary focus of a fitness program as its many benefits directly impact or supplement other components of optimal fitness. This article will focus on aerobic fitness; but the reader must recognize that optimal fitness is made up of many components requiring specific interventions, usually in combination with aerobic exercising.

Moderation is the Key

Throughout the 1960s, 70s and early 80s, it was believed that the longer and harder a person exercised, the greater the fitness benefit. As a result, most fitness exercising involved high-intensity, high-impact activities — the most popular being jogging. Although suitable for some, high-intensity, high-impact exercising was not appropriate for everyone. Although beneficial to the cardiovascular system, doctors warned of long-term muscular-skeletonal damage resulting from the physical pounding on the body. Many found the warning to be valid, but often realized it too late. Others found high-impact, high-intensity workouts to be too strenuous and discontinued exercising. Others, observing the "no pain; no gain." philosophy of high-intensity, high-impact exercising, chose not to get involved. It remains debatable which group was the wiser. It became obvious that more research was needed to establish what constituted an aerobic training effect.

In 1984, Dr. Ken Cooper, considered to be the father of aerobic exercise, published the report, *In Setting Aerobic Goals, Moderation is the Key.* The article, based on his research, showed that moderation, not maximum effort, produces the best aerobic training effect. Cooper surprised the fitness world by stating that jogging more than 10 to 15 miles weekly produces negative fitness returns. (It's not uncommon for a jogger to cover twice that distance weekly.) Cooper also found that fitness walking could produce the same health benefits as jogging. Cooper's research contradicted his earlier maximum effort philosophy and changed the appearance of fitness exercising.

Cooper's new moderation philosophy set off a fitness movement utilizing low-impact, moderate-intensity activities. (Low-impact is defined as always being in contact with the ground.) Walking replaced jogging as the most popular form of exercise. Low-impact aerobics, aqua exercising, stationary cycling and other similar modes of exercise became popular. Old cliches like "No pain; no gain." and "It's got to hurt, to help." were out, and, more than ever, the question "How much exercise is enough?" gained importance.

"F-I-T"

Three components must be considered to produce an aerobic training effect: frequency, intensity and time. The three form the acronym "F-I-T". Answering the question "How much exercise is enough?" requires establishing "F-I-T" parameters.

The *frequency* of exercising should fall between three and five days per week. The two remaining days are important for sufficient recovery and preparation for the upcoming week's activity. It also allows for flexibility in scheduling workouts. High-intensity activities require only three days; moderate-intensity, five days.

Intensity means how hard the exerciser must work. Intensity parameters fall between 40% and 80% of the exerciser's maximum heart rate per minute, or the "target heart rate zone." The following six steps yield an individual's target heart rate zone:

1. Subtract your age from 220 = Maximum: _____ MHR
2. Measure your Resting Heart Rate: _____ RHR
3. Subtract RHR from MHR = Range: _____ HRR
4. Multiply HRR by 40% and 80%:
   _____ x ____.4 = _____
   _____ x ____.8 = _____
5. Add on your Resting Heart Rate:
   _____ _____
6. The sum = Target Heart Rate Zone:
   _____ to _____

Mid-way through, and immediately following an exercise session, measure your pulse for six seconds. Multiply the six second count by 10 to get heart beats per minute. Compare the heart beats per minute to the target heart rate zone. An exercise heart rate falling within the target heart rate zone means the intensity is sufficient to produce an aerobic training effect. A target heart rate can be used to determine the high-low intensity of an activity. A 40% target heart rate equals low intensity; 80% high-intensity.

The third component *time* refers to the exercise duration necessary to produce an aerobic training effect. Time parameters fall between 20 and 60 continuous minutes. Low-intensity activities require a longer duration; high-intensity activities, a shorter duration.

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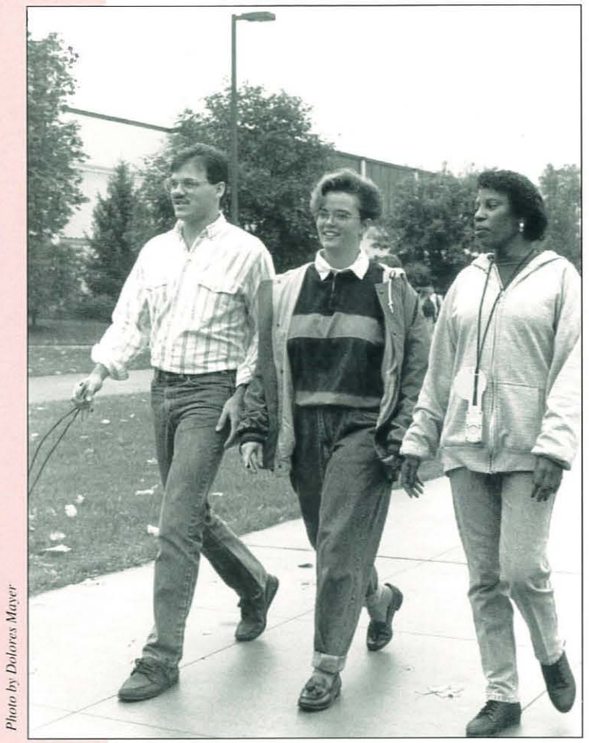


Photo by Dolores Mayer

Enjoying the physical and social benefits of the walking and physical fitness class are, from left: Greg Girton, of Mifflinburg, a nursing student; Kimberly Rowland, of Mt. Carmel, general studies, and Valerie Williams, of Philadelphia, office administration/executive emphasis.

It's as Easy as Walking

Fitness walking is the number one form of fitness exercising today. Just look around and you probably are going to see fitness walkers. And, why not? Fitness walking may be the safest, most efficient, convenient and overall effective form of exercising. Its low-impact mode reduces muscular-skeletonal stress, resulting in a potential lifetime of participation. The moderate-intensity mode offers an opportunity to interact with others and communicate with the environment. When done with the proper F-I-T, walking offers the same health benefits as any other fitness activity.

Walking three miles in under 45 minutes, within your target heart rate zone, five days a week, will result in an aerobic training effect. Walking is relaxing, strengthens your heart and circulatory system, increases your energy level, and builds your self-esteem. It's easy to see why fitness walking is so popular. Maybe it's time you start exercising. It may be easier than you thought! ■