

Statement on Exercise: Benefits and Recommendations for Physical Activity Programs For All Americans

By

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Physical inactivity is recognized as a risk factor for coronary artery disease. Regular aerobic physical activity increases exercise capacity and plays a role in both primary and secondary prevention of cardiovascular disease. Exercise can help control blood lipid abnormalities, diabetes and obesity. In addition, aerobic exercise adds an independent blood pressure-lowering effect in certain persons.

The greatest potential for reduced mortality is in sedentary individuals who become moderately active. Most beneficial effects of physical activity on cardiovascular disease mortality can be attained through moderate-intensity activity, either through formal programs or leisure-time physical activities. Although most of the studies have been on men, more recent findings show similar results for women. In addition, persons who follow a prescribed regular exercise program after suffering a cardiac event have improved rates of survival. Persons who remain sedentary have higher risk for all-cause and cardiovascular disease mortality.

Regular exercise in overweight women and men enhances the beneficial effect of a lowsaturated fat and low-cholesterol diet on blood cholesterol levels. Developing and maintaining aerobic endurance, joint flexibility, and muscle strength are important in a comprehensive exercise program, especially as people age. Resistance training exercise alone has only a modest effect on risk factors compared with aerobic endurance training, but it could help with weight control by increasing the metabolism.

In the elderly, resistance training is both safe and beneficial in improving flexibility and quality of life. Persons with cardiovascular disease are usually asked to refrain from heavy lifting and forceful isometric exercises, but moderate-intensity dynamic strength training is safe and beneficial in persons at low risk. Many activities of daily living require more arm work than leg work. Therefore, persons with coronary artery disease are advised to use their arms as well as their legs in exercise training.

Middle-aged men and women who work in physically demanding jobs or perform moderate to strenuous recreational activities have fewer incidences of coronary artery disease than their less active peers do. Medically prescribed and supervised exercise can reduce mortality rates of persons with coronary artery disease.

In addition to the physical benefits, exercise has shown to improve psychological functioning. Studies show that, compared with sedentary individuals, active persons are more

likely to be better adjusted, to perform better on tests of cognitive functioning, to exhibit reduced cardiovascular responses to stress, and to report fewer symptoms of anxiety and depression. Exercise training also reduces depression in healthy older men and in persons with cardiac disease or major depression. It improves self-confidence and self-esteem, and has been shown to reduce some type A behaviors.

Despite the positive physical and mental health benefits of exercise, sticking to a regular program continues to be a problem in all ages. It is estimated that only fifty percent of all persons who begin an exercise program will continue it for more than 6 months. This is particularly important because exercise is only beneficial if it is maintained for extended periods of time. Thus, it is important to develop strategies to improve exercise initiation and adherence, especially for persons who are among the least active – some African-American women, the less educated, the obese, and the elderly.

Persons of all ages should include physical activity in a comprehensive program of health promotion and disease prevention and should increase their habit to a level appropriate to their abilities, needs and interests. Activities such as walking, hiking, stair-climbing, aerobic exercise, calisthenics, resistance training, jogging, running, bicycling, rowing, swimming, and sports such as tennis, racquetball, soccer, basketball, and "touch" football are especially beneficial when performed regularly. Brisk walking is also an excellent choice.

Evidence also supports that even low to moderate intensity activities performed daily can have some long-term health benefits and lower the risk of cardiovascular disease. Such activities include walking for pleasure, gardening, and yard work, housework, dancing, and prescribed home exercise. For health promotion, dynamic exercise of the large muscles for extended periods of time (30 to 60 minutes, three to six times weekly) is recommended. This may include short periods of moderate intensity activity that total a minimum of 30 minutes on most days. Resistance training using eight to 10 different exercise sets with 10 to 15 repetitions each (for arms, shoulders, chest, trunk, back, hips and legs) performed at a moderate to high intensity at least 2 days a week is recommended.

Parents should teach their children that proper physical activity is a fundamental part of normal healthy living. This commitment provides an incentive, sets an example, and creates in children a positive attitude toward physical activity. Parents and other family members must support each other's exercise habits by sharing responsibilities such as child care, food preparation, and shopping. Families at high risk for cardiovascular disease benefit from structured programs focused on specific health-behavior changes.

Schools at all levels must develop and encourage positive attitudes toward physical exercise, providing opportunities to learn physical skills and perform physical activities, especially those that can be enjoyed for many years. School curriculums should not overemphasize sports and activities that selectively eliminate children who are less skilled. Schools must teach the benefits of exercise and the development and maintenance of exercise and exercise conditioning throughout life.

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