## Penn State Extension

# Creating Health & Nutrition Fact Sheets

#### **Simple Answer: Both**

Health-related physical fitness is the ability of your body (primarily your heart, lungs, and muscles) to carry out daily tasks with minimal effort. You have more energy and less pain or discomfort throughout the day with better physical fitness. In order to achieve optimal health, include exercises that enhance the four health-related physical fitness areas:

- Aerobic fitness

   enhances your body's
   ability to take in and
   use oxygen for energy.
- 2. Muscular fitness
  enhances the ability
  of the muscles in your
  upper and lower body
  to perform tasks.
- 3. Flexibility enhances your body's ability to bend joints and stretch muscles through a full range of motion.

## Strength Training versus Aerobic Training: Which Is Better for My Health?

## 4. Body composition

refers to the ratio between your fat tissue and lean tissue (muscles, bones, and organs). Increased body fat puts you at risk for developing musculoskeletal problems, heart disease, stroke, cancer, diabetes, and high blood pressure.

All four components of health-related physical fitness are interrelated. For example, walking is a primarily aerobic activity. However, your ability to walk depends not only on your level of aerobic fitness but also on the level of muscular fitness and flexibility in your hips and

legs. If you have greater muscle strength and flexibility, your hips and legs may carry you farther and allow you to walk faster without getting out of breath. In addition, if your body composition is made up of less fat and more muscle, you have less unproductive body weight (fat) to carry along with you on your walk.

## **Aerobic Training**

Regular aerobic exercise involves any activity or exercise that makes your heart and lungs work harder. Most aerobic exercises keep your whole body moving in a rhythmic and continuous manner. Examples include walking, biking, dancing,

Tip
Think of exercise
as a savings
account—the
more you put
into it, the more
you get out of
it; some is better
than none;
a little bit every
day can add
up over time.
It's an important
investment!

skating, and rowing.
When your heart, lungs, and blood vessels can function more efficiently as a result of regular aerobic exercise, it is easier for the heart to pump blood and oxygen to the active muscles, tissues, and organs. The resulting increased "aerobic endurance or capacity" gives you more stamina. Aerobic training offers

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many of the health-related benefits of exercise we desire, including lowered heart rate and blood pressure as well as a lower risk of heart disease and diabetes, or improved glucose control if you have diabetes, and some cancers. Other benefits are more energy, better mood, less anxiety and depression, and improved sleep, performance, and self-esteem.

## **Strength Training**

Until recently, only athletes and others desiring to enhance their physique or appearance did strength training. After much research, today we know that strength training has many positive benefits for "If exercising could be packed into a pill, it would be the single most widely prescribed and beneficial medicine in the nation."

— Dr. Robert Butler, director,
National Institute on Aging

the general population and should be part of any exercise program. Simply stated, strength training helps keep your bones strong and allows you to lead a physically active lifestyle with more energy and less risk of injury.

Strength training exercises typically involve lifting weights or using strength training machines and equipment. A higher level of muscular strength (the ability of a muscle to exert force) and muscular endurance (the ability of a muscle to resist fatique over time) allows you to work longer before getting tired and is therefore related to your overall level of aerobic fitness. Additional health benefits of strength training include increased bone strength, decreased risk of osteoporosis, and improved balance and coordination, as well as the benefits listed above under aerobic training.

# Training Programs for Health

To achieve the optimal health benefits of training, aerobic exercises should be performed for at least 30 continuous minutes on five to seven days of the week. In order to condition all of the major muscle groups, eight to ten different strength training exercises should be performed twice a week with at least one day of rest between sessions. If you are not familiar with strength training, seek the advice of a certified personal trainer or an exercise specialist for proper techniques and workloads.

## **Examine Your Choices**

Exercise	What I do now	What I plan to change
Examples: I am thinking about weight training.	Walk 30 minutes 2 to 3 days/week.	Add light weight training 2 days/week for 15 to 30 minutes over lunchtime.
I want to enhance my strength-training routine.	Engage in 30 minutes of aerobic activity 5 to 7 days/week and some strength training.	Use free weights or weight machines for 30 to 60 minutes 2 days/week.
My Goal:		

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Sources: ACSM's Fitness Book, 3rd ed., Human Kinetics, 2003; ACSM's Guidelines for Exercise Testing an Prescription, 6th ed., Lippincott Williams & Wilkins, 2000.

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