

Glossary

This section provides definitions for many terms important to physical activity and health. It has been adapted from the glossary provided in the *Physical Activity Guidelines Advisory Committee Report* (<http://www.health.gov/PAGuidelines/Report/Default.aspx>). It is not meant to be an exhaustive list, and definitions of additional terms can be found in the Committee's report.

Absolute intensity. See **Intensity**.

Accumulate. The concept of meeting a specific physical activity dose or goal by performing activity in short bouts, then adding together the time spent during each of these bouts. For example, a goal of 30 minutes a day could be met by performing 3 bouts of 10 minutes each throughout the day.

Adaptation. The body's response to exercise or activity. Some of the body's structures and functions favorably adjust to the increase in demands placed on them whenever physical activity of a greater amount or higher intensity is performed than what is usual for the individual. These adaptations are the basis for much of the improved health and fitness associated with increases in physical activity.

Adverse event. In the context of physical activity, a negative health event. Examples of adverse events as a result of physical activity include musculoskeletal injuries (injury to bone, muscles, or joints), heat-related conditions (heat exhaustion), and cardiovascular (heart attack or stroke) events.

Aerobic capacity. See **Maximal oxygen uptake**.

Aerobic physical activity. Activity in which the body's large muscles move in a rhythmic manner for a sustained period of time. Aerobic activity, also called endurance activity, improves cardiorespiratory fitness. Examples include walking, running, and swimming, and bicycling.

Balance. A performance-related component of physical fitness that involves the maintenance of the body's equilibrium while stationary or moving.

Balance training. Static and dynamic exercises that are designed to improve individuals' ability to withstand challenges from postural sway or destabilizing stimuli caused by self-motion, the environment, or other objects.

Baseline activity. The light-intensity activities of daily life, such as standing, walking slowly, and lifting lightweight objects. People who do only baseline activity are considered to be inactive.

Body composition. A health-related component of physical fitness that applies to body weight and the relative amounts of muscle, fat, bone, and other vital tissues of the body. Most often, the components are limited to fat and lean body mass (or fat-free mass).

Bone-strengthening activity. Physical activity primarily designed to increase the strength of specific sites in bones that make up the skeletal system. Bone-strengthening activities produce an impact or tension force on the bones that promotes bone growth and strength. Running, jumping rope, and lifting weights are examples of bone-strengthening activities.

Cardiorespiratory fitness (endurance). A health-related component of physical fitness that is the ability of the circulatory and respiratory systems to supply oxygen during sustained physical activity. Cardiorespiratory fitness is usually expressed as measured or estimated maximal oxygen uptake (VO_{2max}). See **Maximal oxygen uptake**.

Dose response. The relation between the dose of physical activity and the health or fitness outcome of interest. In the field of physical activity, "dose" refers to the amount of physical activity performed by the subject or participants. The total dose, or amount,

is determined by the three components of activity: frequency, duration, and intensity.

Duration. The length of time in which an activity or exercise is performed. Duration is generally expressed in minutes.

Endurance activity. See **Aerobic physical activity.**

Exercise. A subcategory of physical activity that is planned, structured, repetitive, and purposive in the sense that the improvement or maintenance of one or more components of physical fitness is the objective. “Exercise” and “exercise training” frequently are used interchangeably and generally refer to physical activity performed during leisure time with the primary purpose of improving or maintaining physical fitness, physical performance, or health.

Fitness. See **Physical fitness.**

Flexibility. A health- and performance-related component of physical fitness that is the range of motion possible at a joint. Flexibility is specific to each joint and depends on a number of specific variables, including but not limited to the tightness of specific ligaments and tendons. Flexibility exercises enhance the ability of a joint to move through its full range of motion.

Frequency. The number of times an exercise or activity is performed. Frequency is generally expressed in sessions, episodes, or bouts per week.

Health. A human condition with physical, social and psychological dimensions, each characterized on a continuum with positive and negative poles. Positive health is associated with a capacity to enjoy life and to withstand challenges; it is not merely the absence of disease. Negative health is associated with illness, and in the extreme, with premature death.

Health-enhancing physical activity. Activity that, when added to baseline activity, produces health benefits. Brisk walking, jumping rope, dancing, playing tennis or soccer, lifting weights, climbing on playground equipment at recess, and doing yoga are all examples of health-enhancing physical activity.

Health-related fitness. A type of physical fitness that includes cardiorespiratory fitness, muscular strength and endurance, body composition, flexibility, and balance.

Intensity. Intensity refers to how much work is being performed or the magnitude of the effort required to perform an activity or exercise. Intensity can be expressed either in *absolute* or *relative* terms.

- **Absolute.** The absolute intensity of an activity is determined by the rate of work being performed and does not take into account the physiologic capacity of the individual. For aerobic activity, absolute intensity typically is expressed as the rate of energy expenditure (for example, milliliters per kilogram per minute of oxygen being consumed, kilocalories per minute, or METs) or, for some activities, simply as the speed of the activity (for example, walking at 3 miles an hour, jogging at 6 miles an hour), or physiologic response to the intensity (for example, heart rate). For resistance activity or exercise, intensity frequently is expressed as the amount of weight lifted or moved.
- **Relative.** Relative intensity takes into account or adjusts for a person’s exercise capacity. For aerobic exercise, relative intensity is expressed as a percent of a person’s aerobic capacity (VO_{2max}) or VO_2 reserve, or as a percent of a person’s measured or estimated maximum heart rate (heart rate reserve). It also can be expressed as an index of how hard the person feels he or she is exercising (for example, a 0 to 10 scale).

Lifestyle activities. This term is frequently used to encompass activities that a person carries out in the course of daily life and that can contribute to sizeable energy expenditure. Examples include taking the stairs instead of using the elevator, walking to do errands instead of driving, getting off a bus one stop early, or parking farther away than usual to walk to a destination.

Maximal oxygen uptake (VO_{2max}). The body’s capacity to transport and use oxygen during a maximal exertion involving dynamic contraction of large muscle groups, such as during running or cycling. Also known as maximal aerobic power and cardiorespiratory endurance capacity.

MET. MET refers to metabolic equivalent, and 1 MET is the rate of energy expenditure while sitting at rest. It is taken by convention to be an oxygen uptake of 3.5 milliliters per kilogram of body weight per minute. Physical activities frequently are classified by their intensity using the MET as a reference.

Moderate-intensity physical activity. On an absolute scale, physical activity that is done at 3.0 to 5.9 times the intensity of rest. On a scale relative to an individual's personal capacity, moderate-intensity physical activity is usually a 5 or 6 on a scale of 0 to 10.

Muscle-strengthening activity (strength training, resistance training, or muscular strength and endurance exercises). Physical activity, including exercise, that increases skeletal muscle strength, power, endurance, and mass.

Overload. The amount of new activity added to a person's usual level of activity. The risk of injury to bones, muscles, and joints is directly related to the size of the gap between these two levels. This gap is called the amount of overload.

Performance-related fitness. Those attributes that significantly contribute to athletic performance, including aerobic endurance or power, muscle strength and power, speed of movement, and reaction time.

Physical activity. Any bodily movement produced by the contraction of skeletal muscle that increases energy expenditure above a basal level. In these Guidelines, physical activity generally refers to the subset of physical activity that enhances health.

Physical fitness. The ability to carry out daily tasks with vigor and alertness, without undue fatigue, and with ample energy to enjoy leisure-time pursuits and respond to emergencies. Physical fitness includes a number of components consisting of cardiorespiratory endurance (aerobic power), skeletal muscle endurance,

skeletal muscle strength, skeletal muscle power, flexibility, balance, speed of movement, reaction time, and body composition.

Progression. The process of increasing the intensity, duration, frequency, or amount of activity or exercise as the body adapts to a given activity pattern.

Relative intensity. See **Intensity**.

Relative risk. The risk of a (typically) adverse health outcome among a group of people with a certain condition compared to a group of people without the condition. In physical activity, relative risk is typically the ratio of the risk of a disease or disorder when comparing groups of people who vary in their amount of physical activity.

Repetitions. The number of times a person lifts a weight in muscle-strengthening activities. Repetitions are analogous to duration in aerobic activity.

Resistance training. See **Muscle-strengthening activity**.

Specificity. A principle of exercise physiology that indicates that physiologic changes in the human body in response to physical activity are highly dependent on the type of physical activity. For example, the physiologic effects of walking are largely specific to the lower body and the cardiovascular system.

Strength. A health and performance component of physical fitness that is the ability of a muscle or muscle group to exert force.

Strength training. See **Muscle-strengthening activity**.

Vigorous-intensity physical activity. On an absolute scale, physical activity that is done at 6.0 or more times the intensity of rest. On a scale relative to an individual's personal capacity, vigorous-intensity physical activity is usually a 7 or 8 on a scale of 0 to 10.

Appendix 1. Translating Scientific Evidence About Total Amount and Intensity of Physical Activity Into Guidelines

This appendix discusses two issues that arise when translating scientific evidence into physical activity guidance for the public:

- In scientific terms, total weekly physical activity in the range of 500 to 1,000 MET-minutes produces substantial health benefits for adults. How should this finding be simplified and translated into Guidelines that are understandable by the public?
- Two methods are used to assess the intensity of aerobic physical activity, termed “absolute intensity” and “relative intensity.” Should the Guidelines specify one method or allow both?

After discussing background information related to these questions, this appendix explains the approach taken on these two issues in the *Physical Activity Guidelines for Americans*.

Background

The Guidelines are derived from an evidence-based report on the health benefits of physical activity, written by the Physical Activity Guidelines Advisory Committee. As background, this appendix first briefly explains the concept of METs and MET-minutes. It then discusses three key findings of the Advisory Committee report, and finally discusses the difference between absolute and relative intensity.

For More Information

See Chapter 1—Introducing the *2008 Physical Activity Guidelines for Americans*, for details on the Advisory Committee and its report.

METs and MET-minutes

A well-known physiologic effect of physical activity is that it expends energy. A metabolic equivalent, or MET, is a unit useful for describing the energy expenditure of a specific activity. A MET is the ratio of the rate of energy expended during an activity to the rate of energy expended at rest. For example, 1 MET is the rate of energy expenditure while at rest. A 4 MET activity expends 4 times the energy used by the body at rest. If a person does a 4 MET activity for 30 minutes, he or she has done $4 \times 30 = 120$ MET-minutes (or 2.0 MET-hours) of physical activity. A person could also achieve 120 MET-minutes by doing an 8 MET activity for 15 minutes.

MET-Minutes and Health Benefits

A key finding of the Advisory Committee Report is that the health benefits of physical activity depend mainly on total weekly energy expenditure due to physical activity. In scientific terms, this range is 500 to 1,000 MET-minutes per week. A range is necessary because the amount of physical activity necessary to produce health benefits cannot yet be identified with a high degree of precision; this amount varies somewhat by the health benefit. For example, activity of 500 MET-minutes a week results in a substantial reduction in the risk of premature death, but activity of more than 500 MET-minutes a week is necessary to achieve a substantial reduction in the risk of breast cancer.

Dose Response

The Advisory Committee concluded that a dose-response relationship exists between physical activity

and health benefits. A range of 500 to 1,000 MET-minutes of activity per week provides substantial benefit, and amounts of activity above this range have even more benefit. Amounts of activity below this range also have some benefit. The dose-response relationship continues even within the range of 500 to 1,000 MET-minutes, in that the health benefits of 1,000 MET-minutes per week are greater than those of 500 MET-minutes per week.

Two Methods of Assessing Aerobic Intensity

The intensity of aerobic physical activity can be defined in absolute or relative terms.

Absolute Intensity

The Advisory Committee concluded that absolute moderate-intensity or vigorous-intensity physical activity is necessary for substantial health benefits, and it defined absolute aerobic intensity in terms of METs:

- Light-intensity activities are defined as 1.1 MET to 2.9 METs.
- Moderate-intensity activities are defined as 3.0 to 5.9 METs. Walking at 3.0 miles per hour requires 3.3 METs of energy expenditure and is therefore considered a moderate-intensity activity.
- Vigorous-intensity activities are defined as 6.0 METs or more. Running at 10 minutes per mile (6.0 mph) is a 10 MET activity and is therefore classified as vigorous intensity.

Relative Intensity

Intensity can also be defined relative to fitness, with the intensity expressed in terms of a percent of a person's (1) maximal heart rate, (2) heart rate reserve, or (3) aerobic capacity reserve. The Advisory Committee regarded relative moderate intensity as 40 to 59 percent of aerobic capacity reserve (where 0 percent of reserve is resting and 100 percent of reserve is maximal

effort). Relatively vigorous-intensity activity is 60 to 84 percent of reserve.

To better communicate the concept of relative intensity (or relative level of effort), the Guidelines adopted a simpler definition:

- Relatively moderate-intensity activity is a level of effort of 5 or 6 on a scale of 0 to 10, where 0 is the level of effort of sitting, and 10 is maximal effort.
- Relatively vigorous-intensity activity is a 7 or 8 on this scale.

This simplification was endorsed by the American College of Sports Medicine and the American Heart Association in their recent guidelines for older adults.¹ This approach does create a minor difference from the Advisory Committee Report definitions, however. A 5 or 6 on a 0 to 10 scale is essentially 45 percent to 64 percent of aerobic capacity reserve for moderate intensity. Similarly, a 7 or 8 on a 0 to 10 scale means 65 percent to 84 percent of reserve is the range for relatively vigorous-intensity activity.

Developing Guidelines Based on Minutes of Moderate- and Vigorous-Intensity Activity

Physical activity guidelines expressed using MET-minutes are not useful for the general public. The concept of METs is difficult to understand and few people are familiar with it. It is challenging for the public to know the MET values for all the activities they do.

As long as people who follow the Guidelines generally achieve 500 to 1,000 MET-minutes per week (or more), it is appropriate to express the Guidelines in simpler terms of minutes of moderate-intensity activity, and minutes of vigorous-intensity activity. Because not all the benefits of physical activity occur at 500 MET-minutes per week, Guidelines that help people exceed this minimum are desirable.

¹Nelson, M. E., Rejeski, W. J., Blair, S. N., Duncan, P. W., Judge, J. O., King, A. C., et al. (2007, August). Physical activity and public health in older adults: Recommendation from the American College of Sports Medicine and the American Heart Association. *Medicine & Science in Sports & Exercise* 8, 1435-1445.

Information in the Advisory Committee Report lays the basis for expressing physical activity guidelines in minutes. The Advisory Committee indicated that 150 minutes (2 hours and 30 minutes) of moderate-intensity activity per week could be regarded as (roughly) equivalent to 500 MET-minutes per week. In fact, 3.3 METs for 150 minutes per week is equal to 500 MET-minutes per week. By recommending that adults do at least 150 minutes of moderate-intensity activity per week, adults will achieve 500 to 1,000 MET-minutes per week if the intensity is 3.3 METs or greater. As indicated by the Advisory Committee Report, people who do 150 minutes of a 3.0 to 3.2 MET activity are acceptably close to achieving 500 MET minutes. As noted earlier, walking at 3.0 miles per hour is a 3.3 MET activity. Hence, it is appropriate to communicate to the public that a “brisk walk” is walking at 3.0 miles per hour or faster.

By recommending at least 75 minutes (1 hour and 15 minutes) per week of vigorous-intensity activity, adults who choose to do vigorous-intensity activity will also generally achieve 500 to 1,000 MET-minutes per week. The lower limit of vigorous-intensity activity (6.0 METs) is twice the lower limit of moderate-intensity activity (3.0 METs). So, 75 minutes of vigorous-intensity activity per week is roughly equivalent to 150 minutes of moderate-intensity activity per week. As the MET range for vigorous-intensity activity has no upper limit, highly fit people can even exceed 1,000 MET-minutes in 75 minutes by doing activities requiring 13.4 MET or more. It is not of concern that the vigorous-intensity Guideline “misleads” people with a high degree of fitness into doing more activity than is really required to meet the Guidelines. Highly fit people have already decided to do large amounts of physical activity, as this is the only way to achieve this degree of fitness.

Finally, the Guidelines needed to address the issue that some people do both moderate-intensity and vigorous-intensity activity in a week. To determine whether they are doing enough activity to meet the Guidelines, these people need a “rule of thumb” as to how vigorous-intensity minutes substitute for moderate-intensity ones. Because 150 minutes of moderate-intensity activity and 75 minutes of vigorous-intensity activity are the minimum amounts,

the rule of thumb becomes that 1 minute of vigorous-intensity activity counts the same as 2 minutes of moderate-intensity activity.

Using Relative Intensity To Meet Guidelines Expressed in Terms of Absolute Intensity

The intent of the aerobic Guidelines for adults is to ensure that people who follow them generally achieve 500 to 1,000 MET-minutes or more. For this to occur, the definition of intensity in the Guidelines needs to be in terms of METs (i.e., absolute intensity). However, the Guidelines for Adults indicate that relative intensity can also be used as a means of assessing the intensity of aerobic activities. And the Guidelines for Older Adults *require* the use of relative intensity. How can this be appropriate?

For many adults it does not matter a great deal whether they use relative or absolute intensity. That is, following the Guidelines means they attain 500 to 1,000 MET-minutes per week using either absolute or relative intensity to guide level of effort. Their level of fitness is such that, when they do absolute moderate-intensity activities in the range of 3.0 to 5.9 METs, they generally are also doing relatively moderate-intensity activity. Similarly, absolutely vigorous and relatively vigorous activities overlap a great deal.

For adults with higher levels of fitness, using relative intensity means they will do higher amounts of activity than intended by the Guidelines. For example, a 3.5 MET activity can be relatively light for these adults, and perhaps 6.0 MET activities are relatively moderate. By doing 150 minutes of a 6.0 MET activity, they exceed the amount of activity intended in the Guideline. But this is acceptable for two reasons: First, the Guidelines encourage people to do higher amounts of activity, as higher amounts have greater health benefits. Second, people with higher levels of fitness generally can only achieve this level of fitness by doing higher amounts of activity, and thus have already chosen to do more activity.

Some adults have low levels of fitness, particularly older adults. For these adults, activities in the range of 3.0 to 5.9 METs are either relatively vigorous, or

physiologically impossible. The Advisory Committee Report stated that for older adults, who commonly have low levels of fitness, the level of effort should be guided by relative intensity (as opposed to absolute). The report also stated that inactive adults should not do relatively vigorous-intensity activity when they start to increase their activity level. In other words, it is not intended or appropriate for people with low levels of fitness to meet a moderate-intensity guideline by routinely doing relatively vigorous-intensity activity.

Allowing the Use of Either Relative Intensity or Absolute Intensity in Children

The Guidelines for Children and Adolescents do not require carefully tracking of the intensity of the activity. The mix of moderate- and vigorous-intensity activity is flexible, as long as some vigorous-intensity activity is done at least 3 days per week. This flexibility means that relative and absolute intensity are both appropriate ways to track intensity.

Relative intensity is appropriate for several reasons. The exercise studies on which the Guidelines are based commonly prescribed aerobic activity using relative intensity. Children and adolescents who follow the Guidelines should have improvement in cardiorespiratory fitness, and the relative intensity of the activity is a major determinant of its fitness effects. The intent of the Advisory Committee Report is that, when a child breathes rapidly during physical activity (an indicator of relatively vigorous-intensity activity for that child), this activity should count as vigorous intensity.

However, it is not always feasible to observe children closely enough to determine their level of effort. In this case, absolute intensity can be used to judge whether the child is doing activity that counts toward the Guidelines. Brisk walking (as opposed to slow walking) counts as moderate-intensity activity, and running counts as vigorous-intensity activity, based on the typical level of effort required for these activities.

Appendix 2. Selected Examples of Injury Prevention Strategies for Common Physical Activities and Sports

This chart provides examples of various evidence-based injury prevention strategies compiled by one group of safety and injury prevention experts (Gilchrist et al., 2007). It is provided as a resource for readers and is not a product of the Physical Activity Guidelines Advisory Committee.

Activity/Sport	Proven*	Promising/Potential*
Baseball/softball	<ul style="list-style-type: none"> • Breakaway bases • Reduced impact balls • Faceguards/protective eyewear 	<ul style="list-style-type: none"> • Batting helmets • Pitch count
Basketball	<ul style="list-style-type: none"> • Mouth guards 	<ul style="list-style-type: none"> • Ankle disc (balance) training • Semi-rigid ankle stabilizers/braces** • Protective eyewear
Bicycling	<ul style="list-style-type: none"> • Helmet use[†] 	<ul style="list-style-type: none"> • Bike paths/lanes • Retractable handle bars
Football	<ul style="list-style-type: none"> • Helmets and other personal protective equipment • Ankle stabilizers/braces** • Minimizing cleat length • Rule changes (no spearing, clipping, etc.) • Playing field maintenance • Preseason conditioning • Cross-training (reduce overuse injuries) • Coach training and experience 	<ul style="list-style-type: none"> • Limiting contact during practice
Ice hockey	<ul style="list-style-type: none"> • Helmets with full face shield • Rule changes (fair play, no checking from behind, no high sticking, etc.) • Increased rink size 	<ul style="list-style-type: none"> • Enforcement of rules • Discouraging fighting
In-line skating/ skateboarding	<ul style="list-style-type: none"> • Wrist guards • Knee/elbow pads 	<ul style="list-style-type: none"> • Helmets
Playgrounds	<ul style="list-style-type: none"> • Shock-absorbing surfacing • Height standards • Maintenance standards 	

Activity/Sport	Proven*	Promising/Potential*
Running/jogging	<ul style="list-style-type: none"> • Altered training regimen 	<ul style="list-style-type: none"> • Shock-absorbing insoles
Skiing/snowboarding	<ul style="list-style-type: none"> • Training to avoid risk situations • Adjustable bindings • Wrist guards in snowboarding 	<ul style="list-style-type: none"> • Helmets
Soccer	<ul style="list-style-type: none"> • Anchored, padded goal posts • Shin guards • Neuromuscular training programs[‡] • Strength training 	

*Proven interventions have strong evidence of effectiveness in preventing injuries. Promising/potential interventions have moderately strong evidence of effectiveness from small studies or have been tested only under laboratory conditions.

**Semi-rigid ankle stabilizers and braces have been shown to be most effective for persons with a previous history of ankle sprain. Stabilizers and braces are recommended for persons who have a previous ankle injury and are participating in all activities with a risk of ankle injury (jumping, running, twisting, etc.).

†Helmets worn while bicycling reduce the risk of death and injury. Educational campaigns, laws/legislation, and financial subsidy programs all increase use of helmets.

‡Neuromuscular training programs consist of 4 elements: (1) muscle strengthening, (2) balance training, (3) jump training, and (4) learning proper mechanics (pivoting, landing, etc.).

Source: Adapted from Gilchrist, J., Saluja, G., & Marshall, S. W. (2007). Interventions to prevent sports and recreation-related injuries. In L. S. Doll, S. E. Bonzo, J. Mercy, & D. A. Sleet (Eds), *Handbook of injury and violence prevention* (pp. 117–136). New York: Springer.

Appendix 3. Federal Web Sites That Promote Physical Activity

Individuals and Families

Centers for Disease Control and Prevention (CDC)

<http://www.cdc.gov/ncipc/duip/preventadultfalls.htm>

Preventing Falls in Older Adults promotes physical activity as part of the approach to reducing falls and fall-related injuries among older adults.

National Institutes of Health

<http://nihseniorhealth.gov/exercise/toc.html>

NIH Senior Health provides aging-related health information for seniors on a variety of topics, including exercise and the causes and prevention of balance problems and falls. *Exercise and Physical Activity: Your Everyday Guide from the National Institute on Aging*, an evidence-based guide that provides information about how older adults can meet the Physical Activity Guidelines can be found at <http://www.nia.nih.gov/HealthInformation/Publications/ExerciseGuide/>.

Office of the Surgeon General

<http://www.surgeongeneral.gov/obesityprevention/index.html>

The Office of the Surgeon General promotes *Healthy Youth for a Healthy Future*, an HHS childhood overweight and obesity prevention initiative. The Web site provides resources to help youth stay active and make healthy choices.

President's Council on Physical Fitness and Sports

<http://www.presidentschallenge.org>

The President's Challenge program recognizes adults and children for meeting physical activity goals through its Presidential Active Lifestyle Award and Presidential Champions program. In addition, the program continues its longstanding physical fitness testing program for children and adolescents. An adult

fitness test, found at <http://www.adultfitnessstest.org>, allows adults aged 18 and older to track their current level of fitness. Additional information can be found at the President's Council on Physical Fitness and Sports <http://www.fitness.gov>.

Schools

Division of Adolescent and School Health, CDC

<http://www.cdc.gov/HealthyYouth/physicalactivity>

The physical activity section of the Healthy Youth! Web site provides resources that can increase the capacity of the nation's schools to promote lifelong physical activity.

Communities

Administration on Aging (AoA)

<http://www.aoa.gov/>

Search: *physical activity*

The AoA Evidence-Based Disease Prevention Program provides examples of how community-based organizations deliver low-cost evidence-based physical activity programs that benefit older adults and help them to thrive in their communities.

Division of Nutrition, Physical Activity, and Obesity (DNPAO), CDC

<http://www.cdc.gov/nccdphp/dnpa/physical/index.htm>

The DNPAO physical activity Web site provides resources for program planners, health professionals, and other community members.

Federal Highway Administration

<http://www.fhwa.dot.gov/environment/bikeped/index.htm>

The Bicycle and Pedestrian program provides resources to help promote bicycle and pedestrian

transportation use, safety, and accessibility. Resources include a listing of State Pedestrian and Bicycle Coordinators and information on funding sources and legislation. This Web site also links to the Pedestrian and Bicycle Information Center, which provides information on engineering, advocacy, education, and enforcement topics.

Environmental Protection Agency

<http://www.epa.gov/aging/bhc/index.htm>

The Building Healthy Communities for Active Aging program provides tools to support community efforts to employ smart growth and active aging policies and programs. One focus of the program is the Building Healthy Communities for Active Aging awards program, which recognizes communities for advancing smart growth and active aging measures.

National Institutes of Health

<http://www.nhlbi.nih.gov/health/public/heart/obesity/wecan/>

We Can! (Ways to Enhance Children's Activity and Nutrition) is an educational program for families and communities focused on helping youths improve food choices, increase physical activity, and reduce screen time. We Can! is jointly sponsored by the National Heart, Lung, and Blood Institute; the National Institute of Diabetes and Digestive and Kidney Diseases; the Eunice Kennedy Shriver National Institute for Child Health and Human Development; and the National Cancer Institute.

National Park Service

http://www.nps.gov/ncrc/programs/rtca/helpfultools/ht_publications.html

The Rivers, Trails, and Conservation Assistance Program has helpful tools that provide resources and

information on trail and greenways programs and trail development. For example, the site has a toolbox of materials on how to turn a community dream of building a trail or revitalizing a park or open space into reality.

Health Care

U.S. Preventive Services Task Force (USPSTF)

<http://www.ahrq.gov/clinic/uspstf/uspsphys.htm>

The Agency for Healthcare Research & Quality supports this independent panel of experts in primary care and prevention that systematically reviews the evidence of effectiveness and develops recommendations for clinical preventive services. The USPSTF recognizes that regular physical activity helps prevent chronic disease and decrease morbidity. The USPSTF counseling recommendation about promoting physical activity is focused on behavioral counseling services delivered in primary care practices.

Worksites

Healthier Worksite Initiative, CDC

<http://www.cdc.gov/nccdphp/dnpa/hwi/index.htm>

This CDC initiative provides health promotion program planners working in State and Federal Government offices with information on a variety of health promotion programs, including physical activity promotion and fitness center design and management. The Web site also links to resources from other nonprofit and educational organizations through the Quick Resources section.

Be Active, Healthy, and Happy!

www.health.gov/paguidelines

