



How much physical activity do youth need?

The physical activity guidelines for children and adolescents aged 6 to 17 focuses on three types of activity: aerobic, muscle-strengthening, and bone-strengthening. Each type has important health benefits.

Aerobic, Muscle-strengthening, and Bone-strengthening Activities

Every day children and adolescents should do **1 hour or more** of physical activity.

Aerobic activities. Most of the 1 hour a day should be either moderate or vigorous-intensity* aerobic physical activity, and include and include **vigorous-intensity** physical activity **at least 3 days a week**.

As a part of the 1 hour a day of physical activity, the following should be included:

- **Muscle-strengthening on at least 3 days a week.** These activities make muscles do more work than usual during daily life. They should involve a moderate to high level of effort and work the major muscle groups of the body: legs, hips, back, abdomen, chest, shoulders, and arms.
- **Bone-strengthening on at least 3 days of the week.** These activities produce a force on the bones that promotes bone growth and strength through impact with the ground.

Youth should be encouraged to engage in physical activities that are **appropriate** for their age, **enjoyable**, and offer **variety**.

No period of activity is too short to count toward the Guidelines.



***Intensity** is the level of effort required to do an activity.

A person doing **moderate-intensity** aerobic activity can talk, but not sing, during the activity.

A person doing **vigorous-intensity** activity cannot say more than a few words without pausing for a breath.



How much physical activity do youth need for health benefits?

Participating in regular physical activity provides several health benefits for youth as summarized below. Reducing risk of some of these conditions may require longer periods of participation in regular physical activity. Other benefits, such as increased heart and lung—or cardiorespiratory—fitness, may require only a few weeks or months of participation.

Aerobic Activities

- Improved:
 - Cardiorespiratory (aerobic) fitness and muscular strength
 - Bone health
 - Cardiovascular and metabolic health biomarkers
- Favorable body composition (percentages of muscle, bone, and fat)

Moderate Evidence for Health Benefits

- Reduced symptoms of depression

Aerobic Activities by Level of Intensity

Youth should not do only moderate-intensity activity. Including vigorous-intensity activities is important because they cause more improvement in cardiorespiratory fitness.

The intensity of aerobic physical activity can be defined on either an absolute or a relative scale. Either scale can be used to monitor the intensity of aerobic physical activity.

- **Absolute intensity** is based on the rate of energy expended during the activity, without considering cardiorespiratory fitness.
- **Relative intensity** uses cardiorespiratory fitness to assess level of effort.

Those doing moderate-intensity activity will notice their heart beating faster than normal and they will be breathing harder than normal. Those doing vigorous-intensity activity will feel their heart beating much faster and their breathing being much harder than normal.

Young people can meet the guidelines in many ways. Examples of different types of activities are included below.

Examples of Moderate- and Vigorous-Intensity Aerobic, Muscle-Strengthening, and Bone-Strengthening Activities for Youth

Type of Physical Activity	Children	Adolescents
Aerobic Moderate-Intensity	<ul style="list-style-type: none"> • Active recreation such as hiking, skateboarding, rollerblading • Bicycle riding* • Brisk walking 	<ul style="list-style-type: none"> • Active recreation, such as canoeing, hiking, cross-country skiing, skateboarding, rollerblading • Brisk walking • Bicycle riding* (stationary or road bike) • Housework and yard work such as sweeping or pushing a lawn mower • Playing games that require catching and throwing, such as baseball, softball

Vigorous-Intensity	<ul style="list-style-type: none"> • Active games involving running and chasing, such as tag • Bicycle riding* • Jumping rope • Martial arts, such as karate • Running • Sports such as ice or field hockey, basketball, swimming, tennis or gymnastics • Cross-country skiing 	<ul style="list-style-type: none"> • Active games involving running and chasing, such as flag football • Bicycle riding* • Jumping rope • Martial arts such as karate • Running • Sports such as tennis, ice or field hockey, basketball, swimming, soccer • Vigorous dancing • Aerobics
Muscle-Strengthening	<ul style="list-style-type: none"> • Games such as tug of war • Modified push-ups (with knees on the floor) • Resistance exercises using body weight or resistance bands • Rope or tree climbing • Sit-ups (curl-ups or crunches) • Swinging on playground equipment/bars 	<ul style="list-style-type: none"> • Cross-country skiing • Games such as tug of war • Push-ups • Resistance exercises with exercise bands, weight machines, hand-held weights • Climbing wall • Sit-ups (curl-ups or crunches)
Bone-Strengthening	<ul style="list-style-type: none"> • Games such as hop-scotch • Hopping, skipping, jumping • Jumping rope • Running • Sports such as gymnastics, basketball, volleyball, tennis 	<ul style="list-style-type: none"> • Hopping, skipping, jumping • Jumping rope • Running • Sports such as gymnastics, basketball, volleyball, tennis

*Some activities, such as bicycling, can be moderate or vigorous intensity, depending upon level of effort.

Ways to Promote Physical Activity in Youth

Many youth are naturally physically active and need opportunities to be active. They benefit from encouragement from parents and other adults to be active. Adults can promote youth physical activity by:

- **Providing time for both structured and unstructured physical activity during school and outside of school.**
Children need time for active play through recess, physical activity breaks, physical education classes, after-school programs, and active time with friends and family.
- **Providing youth with positive feedback and good role models.**
Adults should model and encourage an active lifestyle. Praise, rewards, and encouragement help youth to be active.
- **Promoting activities that set the basis for a lifetime of activity.**
Children and adolescents should be exposed to a variety of activities: active recreation, team sports, and individual sports. In this way, they can find what they can do well in both competitive and non-competitive activities and in activities that do not require exceptional athletic skills.

More Information on Ways for Youth to Be Physically Active

Other sources of information to help youth add physical activity into their lives safely include:

www.cdc.gov/physicalactivity

- Examples of what counts for aerobic activity, muscle-strengthening, and bone-strengthening
- The meaning of age appropriate activities
- Tips on getting children active.

www.cdc.gov/ncipc

- Prevention of injuries related to sports
- Prevention of traumatic brain injury (TBI) information and the Heads Up Toolkits for coaches, parents, and youth
- Water-related injury prevention

www.cdc.gov/healthyyouth

- Data and statistics related to youth physical activity and schools
- Formation on school policies to promote physical activity
- Promising practices in promoting physical activity in schools

Along with the CDC Web site, the following Health and Human Services (HHS) Web sites have information and tools to help children become active:

www.health.gov/PAGuidelines. On this website you will find:

The 2008 Physical Activity Guidelines for Americans Toolkit to assist organizations in promoting the physical activity guidelines.

- Users' Guide – Promoting the Physical Activity Guidelines for Americans in Your Community: A Guide to Building Awareness and Participation
- *Physical Activity Guidelines for Americans* booklet
- *Be Active Your Way: A Guide for Adults*
- *Be Active Your Way: A Fact Sheet for Adults*
- *At-A-Glance: A Fact Sheet for Professionals*
- Posters, event flyers, Frequently Asked Questions (FAQs)

