# The Physical Activity Guidelines for Children and Adolescents

The Role of Communities in Promoting Youth Physical Activity

Your Name
Organization or Group
Date of Presentation



#### **Presentation Objectives**

- Identify the benefits of regular physical activity among youth
- Describe the key physical activity guidelines for children and adolescents
- Describe the role of communities, in partnership with schools and families, in promoting the physical activity among children and adolescents



## A Day in the Life of Colin: A 7-Year-Old Child

- Walks to and from school
- Jumps rope and does gymnastics in physical education class
- Plays on the playground during recess
- Does homework
- Watches television
- Plays soccer with family
- Plays video games



# What Are the Benefits of Physical Activity?

- Promotes health and fitness
- Builds healthy bones and muscles<sup>1</sup>
- Reduces the risk of developing obesity and risk factors for diseases such as type 2 diabetes and heart disease<sup>1</sup>
- Reduces the symptoms of anxiety and depression<sup>1</sup>
- Can positively affect concentration, memory, and classroom behavior<sup>2</sup>



2. J Pediatr 2005;146(6):732-7.



# How Much Physical Activity Do Youth Need?

- Children and adolescents should do 60 minutes (1 hour) or more of physical activity daily.
  - Aerobic Activities: Most of the 60 or more minutes per day should be either moderate- or vigorous-intensity aerobic physical activity. Include vigorous-intensity physical activity at least 3 days per week.
  - Muscle-strengthening Activities: Include muscle-strengthening physical activity on at least 3 days of the week, as part of the 60 or more minutes.
  - Bone-strengthening Activities: Include bone-strengthening physical activity on at least 3 days of the week, as part of the 60 or more minutes.
- Activities should be age-appropriate, enjoyable, and offer variety.

#### What Does This Really Mean?

- At least 60 minutes every day
- Mostly aerobic activities
- Add variety and fun



#### What are Aerobic Activities?

- Activities that keep your body moving enough to increase your heart rate and make you breathe harder.
- There are two intensities of aerobic activity:
  - Moderate-intensity
  - Vigorous-intensity



## Judging the Intensity of Aerobic Activities

- Moderate-intensity Activity
  - Heart will beat faster than normal and breathing will be harder than normal
  - On a scale of 0 to 10, moderate-intensity activity is a 5 or 6

1 2 3 4 5 6 7 8 9 10

- Vigorous-intensity Activity
  - Heart will beat much faster than normal and breathing will be much harder than normal
  - On a scale of 0 to 10, a vigorous-intensity activity is 7 or 8

1 2 3 4 5 6 7 8 9 10

#### Types of Moderate- and Vigorous-Intensity Aerobic Activities

Type of Physical	Age Group	
Activity	Children	Adolescents
Moderate- intensity aerobic	<ul> <li>Active recreation, such as hiking, skateboarding, rollerblading</li> <li>Bicycle riding</li> <li>Brisk walking</li> </ul>	<ul> <li>Active recreation, such as canoeing, hiking, skateboarding, rollerblading</li> <li>Brisk walking</li> <li>Bicycle riding (stationary or road bike)</li> <li>Housework and yard work, such as sweeping or pushing a lawn mower</li> <li>Games that require catching and throwing, such as baseball and softball</li> </ul>
Vigorous- intensity aerobic	<ul> <li>Active games involving running and chasing, such as tag</li> <li>Bicycle riding</li> <li>Jumping rope</li> <li>Martial arts, such as karate</li> <li>Running</li> <li>Sports such as soccer, ice or field hockey, basketball, swimming, tennis</li> <li>Cross-country skiing</li> </ul>	<ul> <li>Active games involving running and chasing, such as flag football</li> <li>Bicycle riding</li> <li>Jumping rope</li> <li>Martial arts, such as karate</li> <li>Running</li> <li>Sports such as soccer, ice or field hockey, basketball, swimming, tennis</li> <li>Vigorous dancing Cross-country skiing</li> </ul>

### What are Muscle-Strengthening Activities?

- Activities that make muscles do more work than usual activities of daily life
- Activities that can be part of unstructured play
  - Climbing trees
  - Playing tug-of-war
- Activities that can be structured
  - Push-ups, pull-ups
  - Working with resistance bands
  - Lifting weights



# Types of Muscle-Strengthening Activities

Type of Physical Activity	Age Group	
	Children	Adolescents
Muscle-strengthening	<ul> <li>Games such as tug-of- war</li> </ul>	Games such as tug-of- war
	<ul> <li>Modified push-ups (with knees on the floor)</li> </ul>	<ul><li>Push-ups and pull-ups</li><li>Resistance exercises</li></ul>
	<ul> <li>Resistance exercises using body weight or resistance bands</li> </ul>	with exercise bands, weight machines, hand- held weights
	Rope or tree climbing	Climbing wall
	<ul> <li>Sit-ups (curl-ups or crunches)</li> </ul>	Sit-ups (curl-ups or crunches)
	<ul> <li>Swinging on playground equipment/bars</li> </ul>	

## What Are Bone-Strengthening Activities?

- Activities that produce a force on the bones that promotes bone growth and strength, such as jumping
- Activities that are especially important for young people because the greatest gain in bone mass occur during the years just before and during puberty

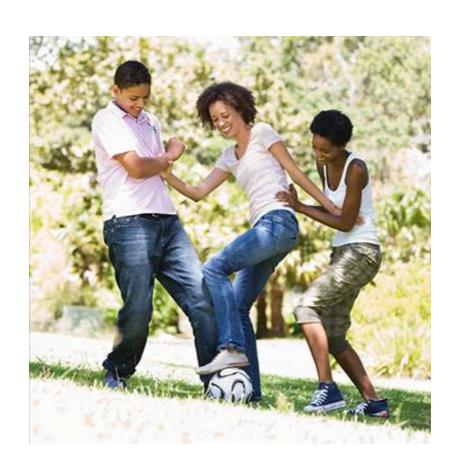


#### **Types of Bone-strengthening Activities**

Type of Physical	Age Group	
Activity	Children	Adolescents
Bone-strengthening	<ul> <li>Games such as hopscotch</li> </ul>	<ul> <li>Hopping, skipping, jumping</li> </ul>
	<ul> <li>Hopping, skipping, jumping</li> <li>Jumping rope</li> <li>Running</li> <li>Sports such as gymnastics, basketball, volleyball, tennis</li> </ul>	<ul> <li>Jumping rope</li> <li>Running</li> <li>Sports such as gymnastics, basketball, volleyball, tennis</li> </ul>

# How Are the Guidelines for Youth Different from the Guidelines for Adults?

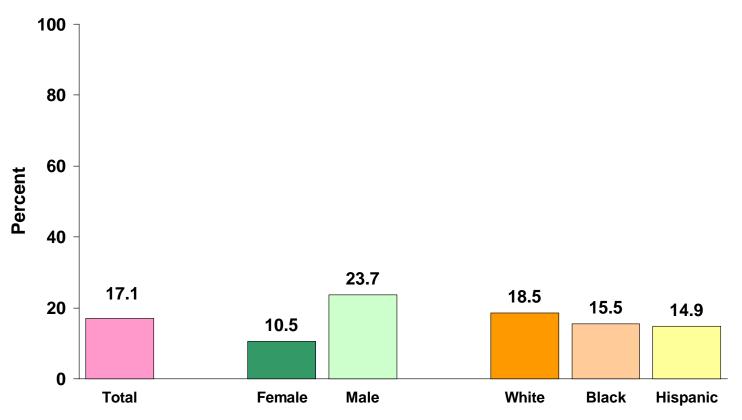
- Take into consideration natural activity patterns of children
  - All episodes of moderateor vigorous-intensity activities count toward daily requirement
  - Unstructured active play can provide all three types of physical activity
- Daily physical activity required
- Specify need for bonestrengthening activities and vigorous-intensity activities each week



#### Meeting the Guidelines

Getting and Staying Active

## How Physically Active Are High School Students?



<sup>\*</sup> Were physically active doing any kind of physical activity that increased their heart rate and made them breathe hard some of the time for a total of at least 60 minutes/day during the 7 days before the survey.

Source: National Youth Risk Behavior Survey, 2007.

# How Much Do 9- to 13-Year-Olds Participate in Physical Activity?

Race/Ethnicity	Organized Activity	Free-Time Activity
Black, non-Hispanic	24%	75%
Hispanic	26%	75%
White, non-Hispanic	47%	79%
Total	39%	77%

Source: MMWR 2003;52(33):785-8.

#### **Meeting the Guidelines**

- Youth Who Don't Meet the Guidelines
  - Slowly increase activity in small steps
  - Participate in enjoyable activities
- Youth Who Meet the Guidelines
  - Continue being active on a daily basis
  - Work toward becoming more active
- Youth Who Exceed the Guidelines
  - Maintain activity level
  - Vary the kinds of activities to reduce the risk of injury

#### A Day in the Life of Colin

- Walks to and from school (20 minutes)
- Jumps rope and does gymnastics in physical education class (10 minutes each)
- Plays on the playground during recess (10 minutes)
- Does homework (20 minutes)
- Watches television (30 minutes)
- Plays soccer with family (20 minutes)
- Plays video games (30 minutes)
- Total physical activity time = 60 minutes
  - Vigorous-intensity aerobic activity: jumping rope
  - Bone-strengthening activities: jumping rope, gymnastics
  - Muscle-strengthening activities: gymnastics



#### **Colin's Weekly Physical Activities**

Monday	Walks to and from school	20 minutes
	Plays on playground	10 minutes
	Jumps rope	10 minutes
	Does gymnastics	10 minutes
	Plays soccer with family	20 minutes
Tuesday	Walks to and from school	20 minutes
	Plays on playground	25 minutes
	Climbs on playground equipment	15 minutes
Wednesday	Walks to and from school	20 minutes
	Plays actively with friends	25 minutes
	Jumps rope	10 minutes
	Runs	5 minutes
	Does sit ups	2 minutes

#### Colin's Weekly Activities, cont.

Thursday	Plays actively with family	30 minutes
	Plays soccer	30 minutes
Friday	Walks to and from school	20 minutes
	Plays actively with friends	25 minutes
	Bicycles	15 minutes
Saturday	Plays on playground	30 minutes
	Climbs on playground equipment	15 minutes
	Bicycles	15 minutes
Sunday	Plays on playground	10 minutes
	Plays soccer	40 minutes
	Plays tag with family	10 minutes

#### Maria: A 16-Year-Old Adolescent

- Maria participates in many types of physical activities in many places
- She plays tennis and does sit-ups and push-ups during physical education class
- She likes to play basketball at the YMCA, do yoga, and go dancing with her friends
- She likes to walk and hike with her dog



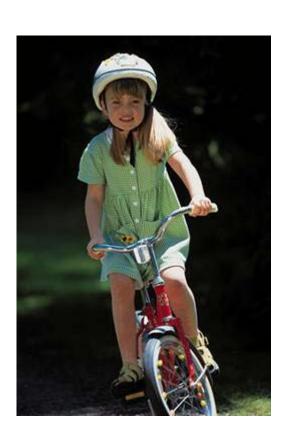
#### A Day in the Life of Maria

- Walks dog (10 minutes)
- Plays tennis (30 minutes)
- Does sit-ups and push-ups (5 minutes)
- Plays with children at the park while babysitting (15 minutes)
- Total physical activity time = 60 minutes
  - Vigorous-intensity aerobic activity: tennis
  - Bone-strengthening activity: tennis
  - Muscle-strengthening activity: sit-ups and push-ups



#### **Barriers to Meeting the Guidelines**

- Personal
  - Attitude
  - Belief in ability to be physically active
- Social
  - Influence of their peers
  - Parental support
- Environmental
  - Safe locations to be active
  - Access to equipment
  - Financial costs of physical activities
  - Time

















Community agencies that serve youth



### YOUTH PHYSICAL ACTIVITY

# Youth Physical Activity

The Role of Communities

# How Communities Can Promote the Youth Physical Activity Guidelines

- Community-wide campaigns
- Enhance access to places to be physically active
- Involve multiple sectors of the community



#### **Community-Wide Campaigns**

- Include physical activity messages with activities
  - Health fairs
  - Walk and run events
  - Physical activity counseling
- Distribute messages through television, newspapers, radio, and other media
  - Encourage local media to feature stories about young people who have made physical activity a priority

### Lexington, Kentucky, and the *VERB*™ Campaign

- Social marketing campaign promoted physical activity among "tweens" (youth aged 9–13 years)
- Coalition of local health, education, and communitybased agencies adapted the CDC's VERB™ campaign for their community





### Lexington, Kentucky, and the *VERB*<sup>™</sup> Campaign

- Increased physical activity opportunities for tweens
- Increased and strengthened community-wide partnerships
- Businesses gained recognition in the community
- VERB<sup>TM</sup> became a household word in Lexington
- Helped launch more than eight spin-off scorecard programs in several other Kentucky counties and in Sarasota County, Florida

# Improving Access to Places and Programs To Be Physically Active

- Implement "complete streets" policies
- Identify safe routes for walking and bicycling
- Build new places for physical activity or turn an abandoned or vacant lot into a park, multipurpose court, or playground
- Provide access to school gymnasiums, recreation fields, and playgrounds when school is not in session



#### **Cross-Sector Collaboration**

What Schools, Families, and Communities Can Do Together

#### **Cross-Sector Collaboration**

- Parks and recreation departments—provide access
- Law enforcement agencies promote safety
- Urban planners—design features
- Transportation agencies promote use, safety, and access
- Architects—design and construction



# Working Together: Community Involvement In School-Based Physical Activity

- Support school-based physical activity
  - Join the school health advisory council
  - Donate equipment or money or encourage staff to volunteer time
  - Support Safe Routes to School programs
  - Offer afterschool physical activity programs



# Working Together: Joint-Use Agreements

- Share resources: athletic fields, playgrounds, and fitness facilities with other community members and organizations
- Open school facilities to provide physical activity programs to students, families, school staff, and community members
- Seek funding from local businesses, community groups and health organizations for physical activity programs and events

















Community agencies that serve youth



### YOUTH PHYSICAL ACTIVITY

# Thank you! Questions?

Be Active and Play, 60 minutes, every day!



U.S. Department of Health and Human Services
Centers for Disease Control and Prevention
National Center for Chronic Disease Prevention and Health Promotion
Division of Adolescent and School Health
www.cdc.gov/HealthyYouth



