

1 **Physical Development and Health in Middle Childhood**

Modesto Junior College

2 **Guideposts for Study**

- 1. How Do School-Age Children's Bodies and Brains Grow and Develop?
- 2. What Are the Nutritional and Sleep Needs of Middle Childhood?

3 **Guideposts for Study**

- 3. What Gains in Motor Skills Typically Occur At This Age, and What Kinds of Physical Play Do Boys and Girls Engage In?
- 4. What Are the Principal Health and Safety Concerns in Middle Childhood?

4 **A Healthy Time**

- *Middle childhood*, ages 7 to 11, is generally a happy, healthy time of life

5 **Size and Shape**

- 1 • The rate of growth slows during middle childhood.
 - Most 7-11 year olds gain 5-7 lbs. and 2" per year
 - BMI (Body Mass Index) may be the lowest at age 6.
- 2 • African-American boys and girls tend to grow faster than European children.
 - One type of growth disorder arises from the body's failure to produce enough growth hormone.

6 **Tall and Short Classmates**

- 1 • Recall and describe the personality of a classmate in your 4th-6th grade class as being taller or more grown-up in appearance than most other children.
- 2 • Recall and describe the personality of a classmate in your 4th-6th grade class as being shorter or less mature in appearance than most of the other children.

7 **Dental Care and Hygiene**

- Tooth Development and Dental Care
 - Most adult teeth arrive in early childhood
 - Primary teeth begin to fall out at about age 6
 - A dramatic drop in untreated cavities in recent years is due to the use of adhesive sealants in children's dental care











8 **"The Brain"**









9 **Brain Development**

- Advances include:
 - Continued myelination and neural connections
 - Growth in connections between the temporal and parietal lobes
 - Greater ability for self-control
 - Selective attention: ability to concentrate on what is important
 - Automatization: some skills become routine (e.g., reading, writing one's name)

10 **Make it Real: Brain Development**

- *What aspects of brain development are involved in playing a musical instrument?*

- 11  **Nutrition and Sleep**
- 12  **Nutrition and Sleep**
- Nutritional Needs
 - Schoolchildren need, on average, 2,400 calories per day
 - Varied diet including plenty of grains, fruits, vegetables, and high levels of complex carbohydrates
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- 13  **Nutrition and Sleep**
- Nutritional Needs
 - To avoid overweight children should get only 30 percent of their total calories from fat and less than 10 percent of the total from saturated fat
 - Fruit juice and sweetened beverages should be limited to 8 to 12 ounces a day
- 14  **Nutrition and Sleep**
- Sleep Patterns and Problems
 - Needs decline from about 11 hours a day at age 5 to a little more than 10 hours at age 9 and about 9 hours at age 13
 - Children who have a television set in their bedroom get less sleep
- 15  **Nutrition and Sleep**
- Sleep Patterns and Problems
 - Children wake up twice per night
 - Girls sleep longer and more soundly than boys
 - Family stress associated with lower sleep quality
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- 16  **Motor Development and Physical Play**
- 17  **Motor Skills**
- Motor skill development continues through middle childhood, due to brain maturation and experience.
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 - Older children have a faster reaction time than younger children.
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 - Rough-and-tumble play helps regulate and coordinate frontal lobes of brain.
- 18  **Motor Development**
- Organized Sports
 - After rough-and-tumble play, children join organized, adult-led sports
 - 38.5 percent participate in organized athletics outside school
 - 77.4 percent participate in unorganized physical activity
 - Bicycling
 - Shooting baskets
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- 19  **Motor Skills**
- Children's Lives Are Becoming More Sedentary
 - Children spend less time on sports and outdoor activities
 - More time spent on:
 - Schooling and homework
 - Watching television
 - 12 to 14 hours per week
 - Computer activities
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- 20  **Make it Real: Motor Skills**
- *List some benefits and concerns of sports for young children.*
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 - *How often did you have physical education in school?*

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- 21  **Motor Skills (cont.)**
 - Benefits of sports programs include exercise, fun, teamwork, sportsmanship.
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 - Concerns include too much competition at a young age, increased stress, critical parents, risk of physical injury.
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 - Time for physical education at school has decreased significantly, as well as safe neighborhood places to play.
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- 22  **Motor Development and Physical Play**
 - Long-Term Health Benefits of Regular Physical Activity
 - Weight control
 - Lower blood pressure
 - Improved cardio respiratory functioning
 - Enhanced self-esteem and well-being
- 23  **Health and Safety**
- 24  **Health and Safety**
 - Overweight and Body Image
 - Becoming a major health issue worldwide
 - Boys are more likely to be overweight than girls
 - Many girls in middle childhood are concerned with body image
 - How one believes one looks
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- 25  **To Barbie or not to Barbie**
- 26  **Health and Safety**
 - Overweight and Body Image
 - Causes of Overweight
 - Heredity
 - Too little exercise
 - Too much and/or wrong kinds of food
 - Excessive television viewing
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- 27  **Health and Safety**
 - Why is Childhood Overweight a Serious Concern?
 - Emotional suffering
 - Behavior problems
 - Depression and low self-esteem
 - Medical problems
 - High blood pressure
 - High cholesterol
 - High insulin levels
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- 28  **Health and Safety**
 - Overweight and Body Image
 - Prevention and treatment of overweight
 - Less time in front of television and computers
 - Changes in food labeling and advertising
 - Healthier school meals
 - Education to help children make better food choices
 - More time spent in physical education

29 **Health and Safety**

- Overweight and Body Image
 - Overweight and childhood hypertension
 - High blood pressure
 - “Evolving epidemic”
 - Weight reduction through dietary modification is the primary treatment
 - Long-term consequences of drug therapy are unknown

30 **Childhood Obesity**

- 1 • Weight status category/Percentile range
(http://www.cdc.gov/nccdphp/dnpa/bmi/childrens_BMI/about_childrens_BMI.htm)
 - Underweight Less than the 5th percentile
 - Healthy weight 5th percentile to less than the 85th percentile
 - At risk of overweight 85th to less than the 95th percentile
 - Overweight Equal to or greater than the 95th percentile
- 2 • The rate of overweight and obese children is increasing.
 - Overweight children are at higher risk of health problems such as Type II diabetes and asthma, sleep apnea, liver disease and orthopedic problems.
 - They often suffer socially and academically as they face ridicule from peers.

31 32 **Health and Safety**

- Acute Medical Conditions
 - Occasional, short-term conditions
 - Infections
 - Warts
 - Colds
 - Flu
 - Viruses

33 **Health and Safety**

- Chronic Medical Conditions
 - Vision and hearing problems
 - 13 percent of children are estimated to be blind or have impaired vision
 - Stuttering
 - Involuntary audible or silent repetition or prolongation of sounds or syllables
 - Persistent developmental stuttering (PDS)

34 **Health and Safety**35 **Health and Safety**

- Factors in Health and Access to Health Care
 - Social disadvantage plays an important part in children’s health
 - Families with higher socioeconomic status are more likely to have health insurance
 - Cultural and ethnic groups vary on beliefs and attitudes about healthcare

36 **Health and Safety**

- Accidental Injuries
 - Leading cause of death among school-age U.S. children
 - Protective headgear is vital
 - Trampolines are not recommended, but if one is used it must have constant supervision