

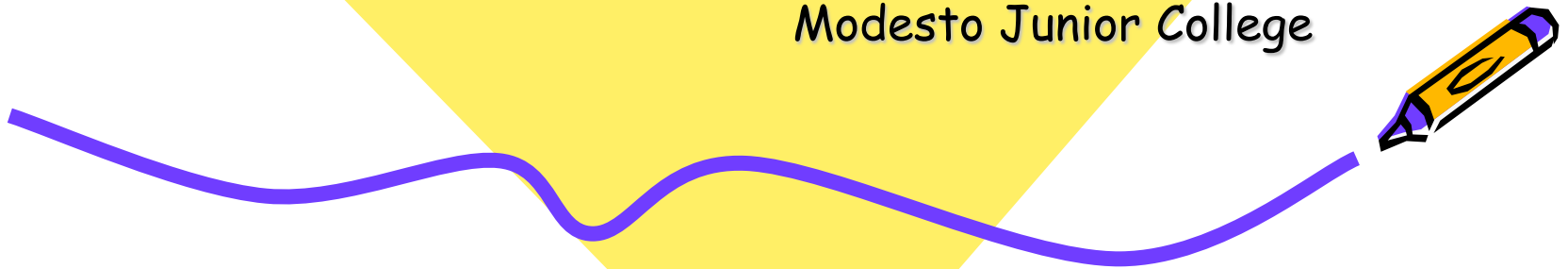
A Child's World: Infancy through Adolescence

Eleventh Edition

Chapter 12

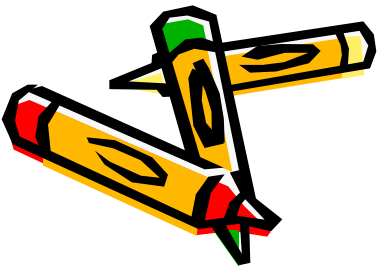
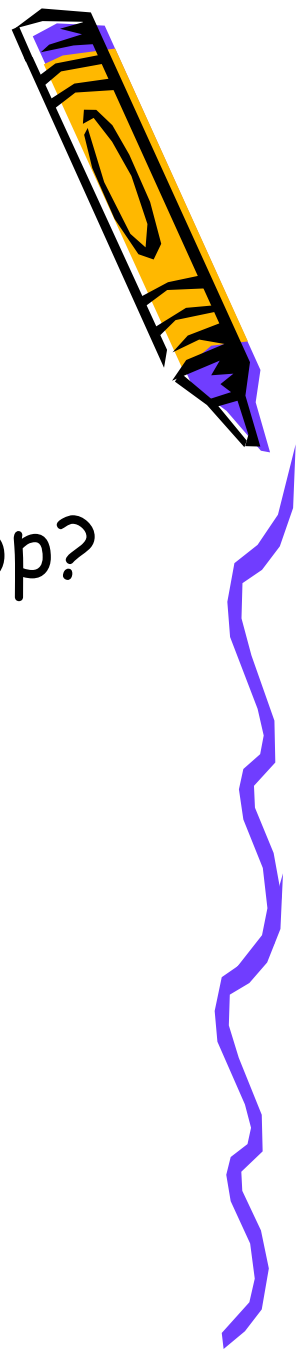
Physical Development and Health in Middle Childhood

Modesto Junior College



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?



Guideposts for Study

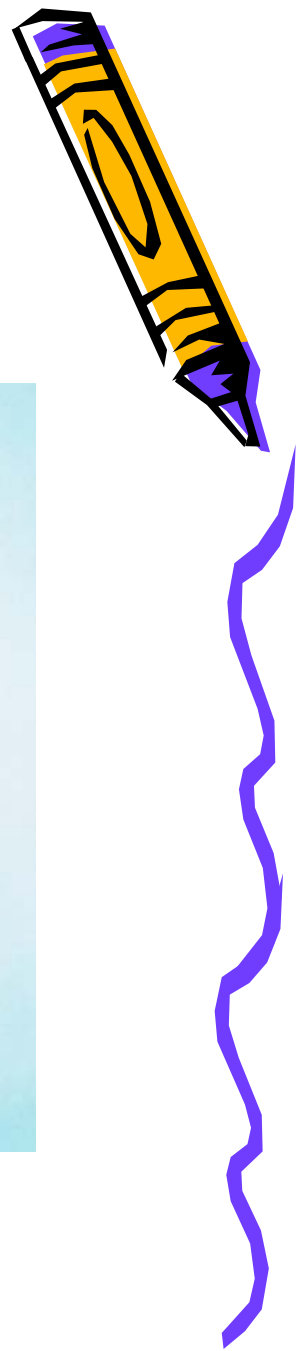


- 3. What Gains in Motor Skills Typically Occur At This Age, and What Kinds of Physical Play Do Boys and Girls Engage In?
- 4. What Are the Principal Health and Safety Concerns in Middle Childhood?



A Healthy Time

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



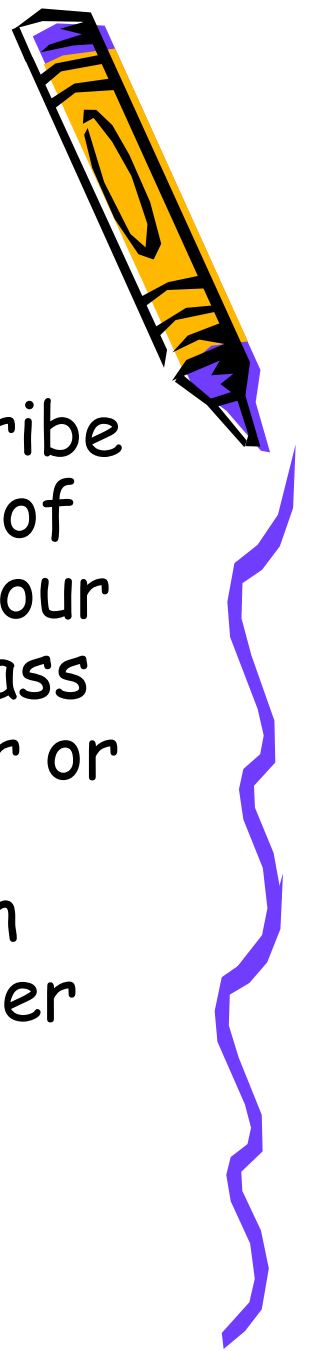
Size and Shape



- 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.
- 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.



Tall and Short Classmates



- 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.
- 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.



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

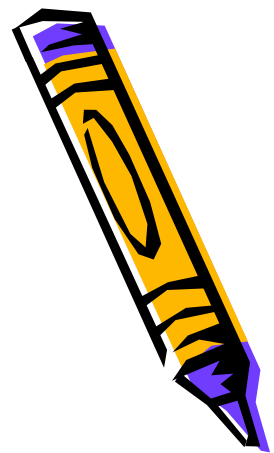




"The Brain"



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)



Make it Real: Brain Development



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

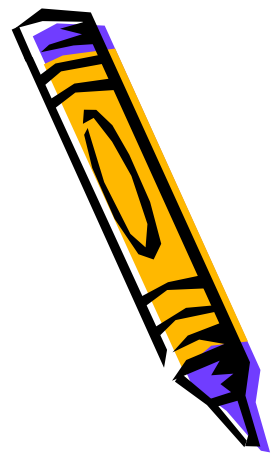




Nutrition and Sleep



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



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



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



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





Motor Development and Physical Play



Motor Skills



- Motor skill development continues through middle childhood, due to **brain maturation and experience**.
- Older children have a faster **reaction time** than younger children.
- **Rough-and-tumble play** helps regulate and coordinate frontal lobes of brain.



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



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



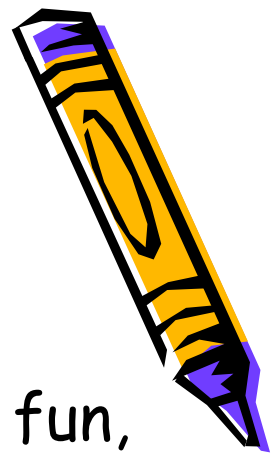
Make it Real: Motor Skills



- *List some benefits and concerns of sports for young children.*
- *How often did you have physical education in school?*



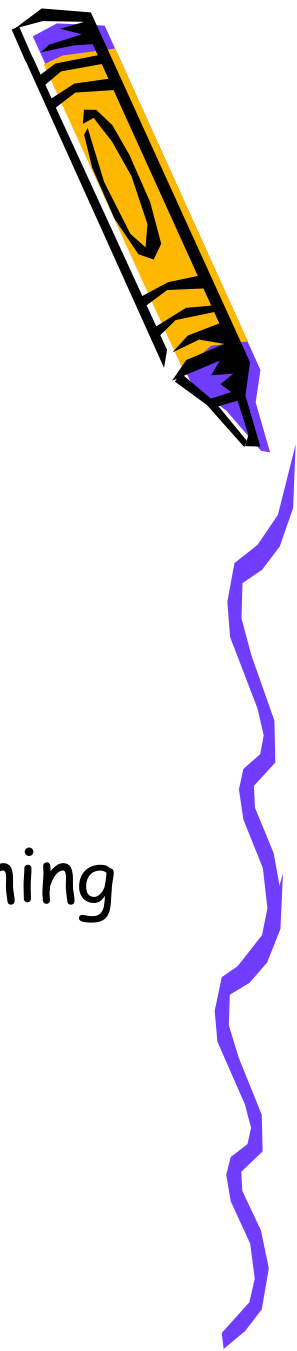
Motor Skills (cont.)



- **Benefits** of sports programs include exercise, fun, teamwork, sportsmanship.
- **Concerns** include too much competition at a young age, increased stress, critical parents, risk of physical injury.
- **Time** for physical education at school has decreased significantly, as well as safe neighborhood places to play.



Motor Development and Physical Play

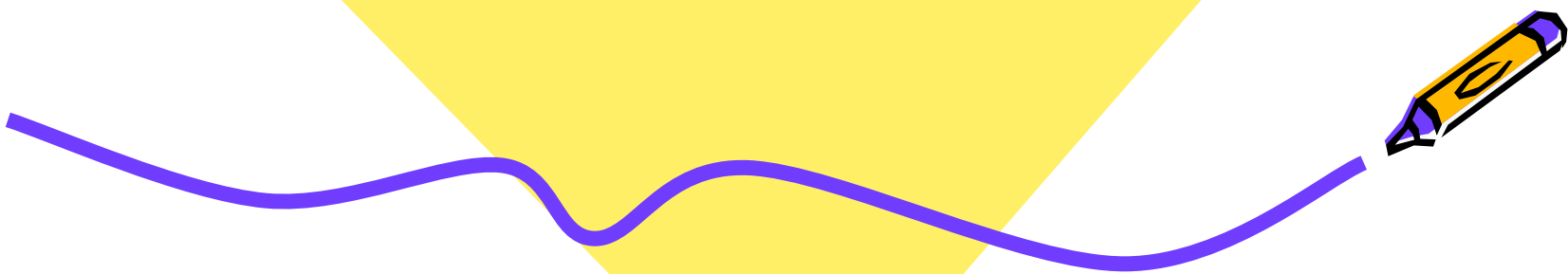


- Long-Term Health Benefits of Regular Physical Activity
 - Weight control
 - Lower blood pressure
 - Improved cardio respiratory functioning
 - Enhanced self-esteem and well-being



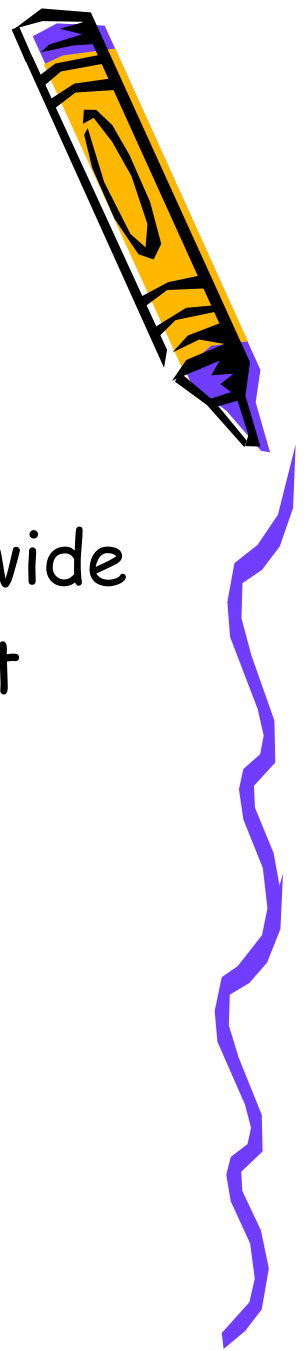


Health and Safety



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



To Barbie or not to Barbie

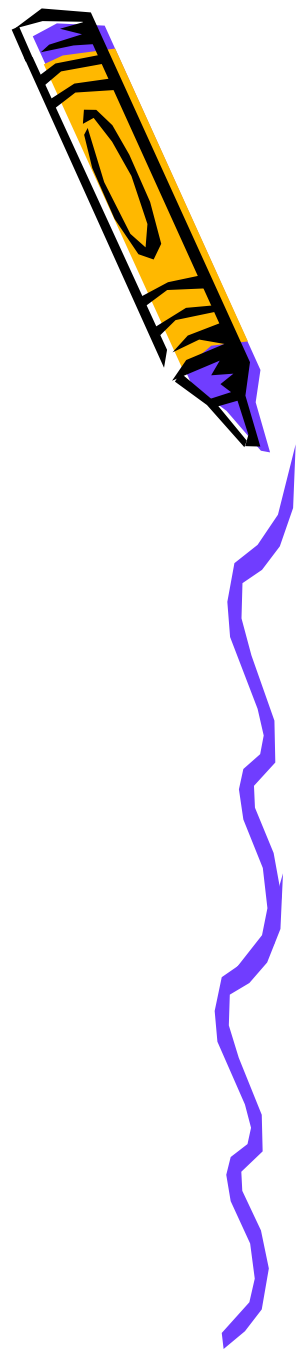


Please Read the
article on p.339
(Box 12-1)



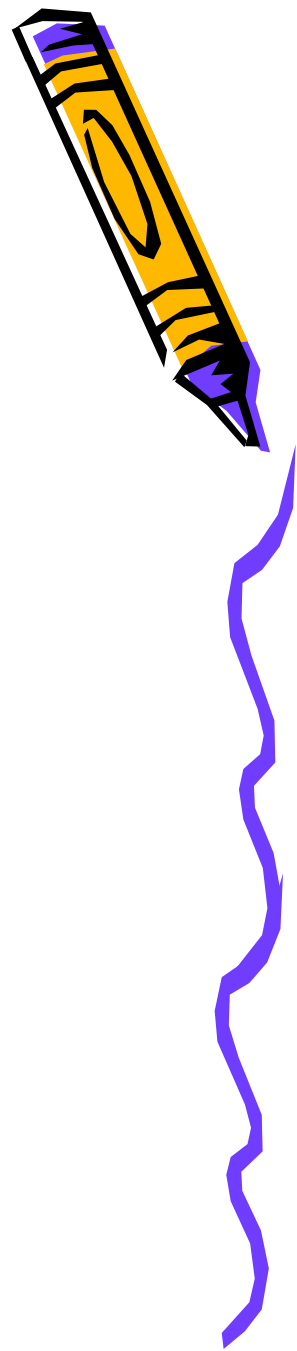
Health and Safety

- Overweight and Body Image
 - Causes of Overweight
 - Heredity
 - Too little exercise
 - Too much and/or wrong kinds of food
 - Excessive television viewing



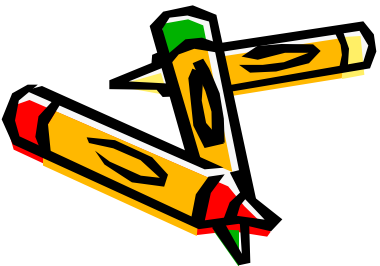
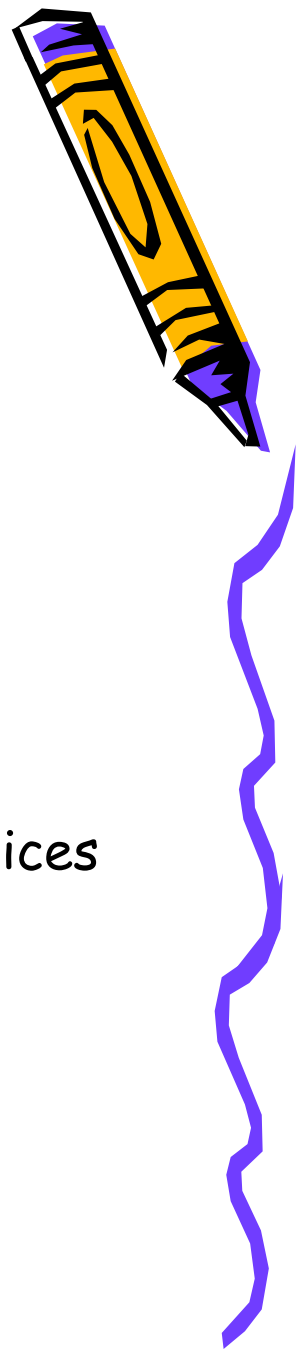
Health and Safety

- 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



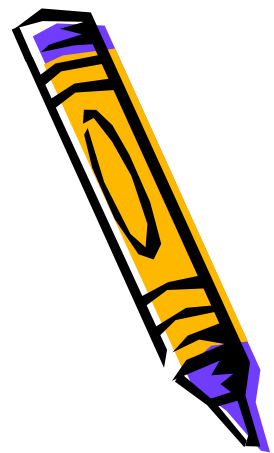
Health and Safety

- 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

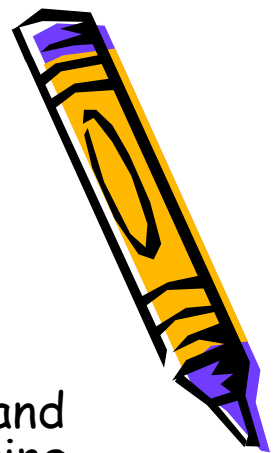


Health and Safety

- 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



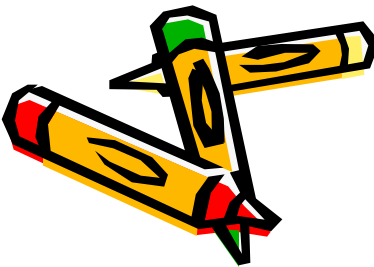
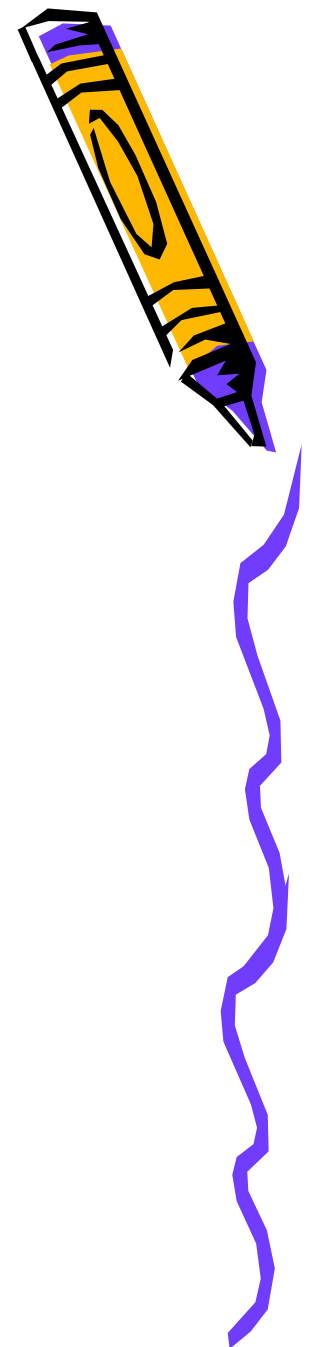
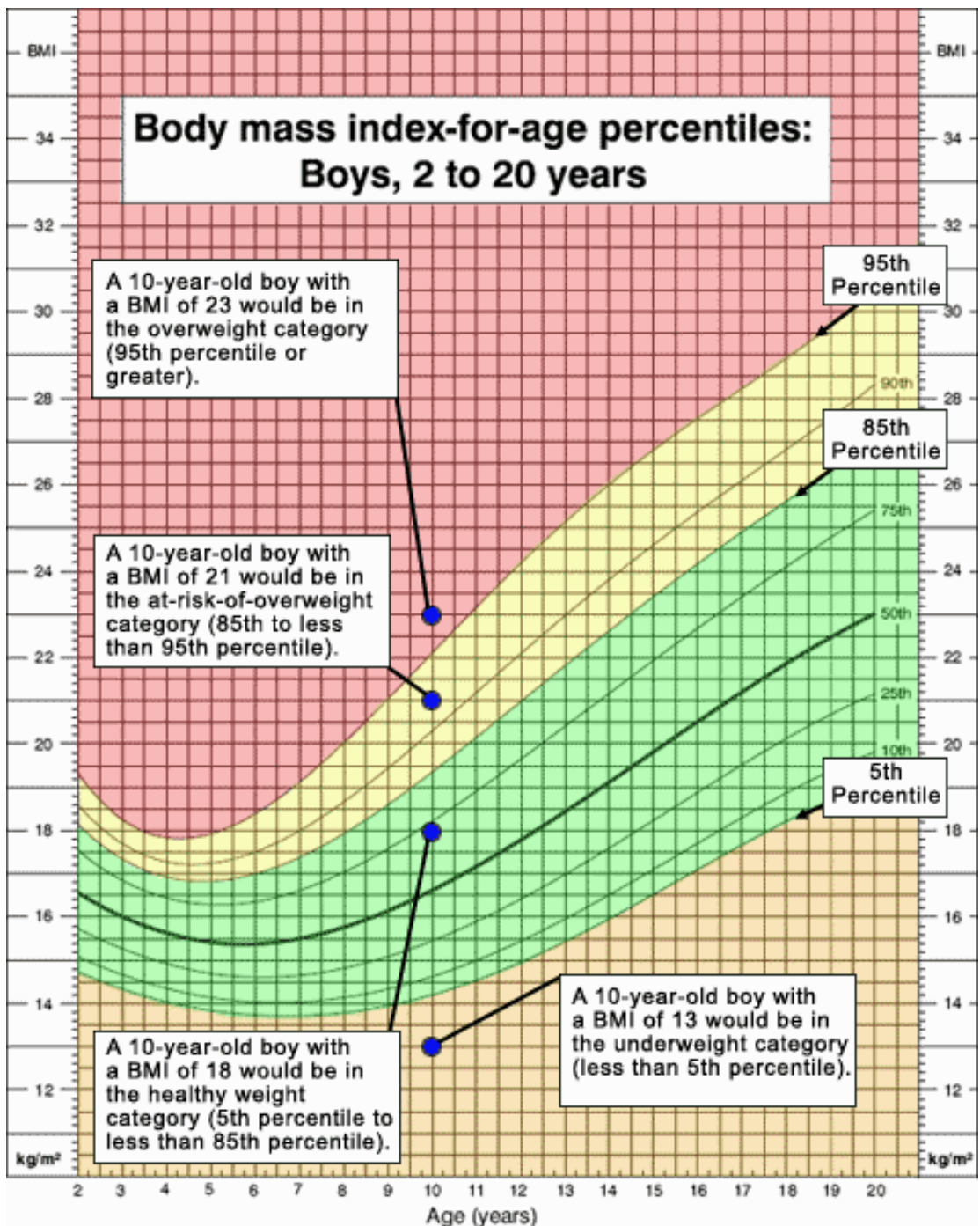
Childhood Obesity



- **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
- 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.

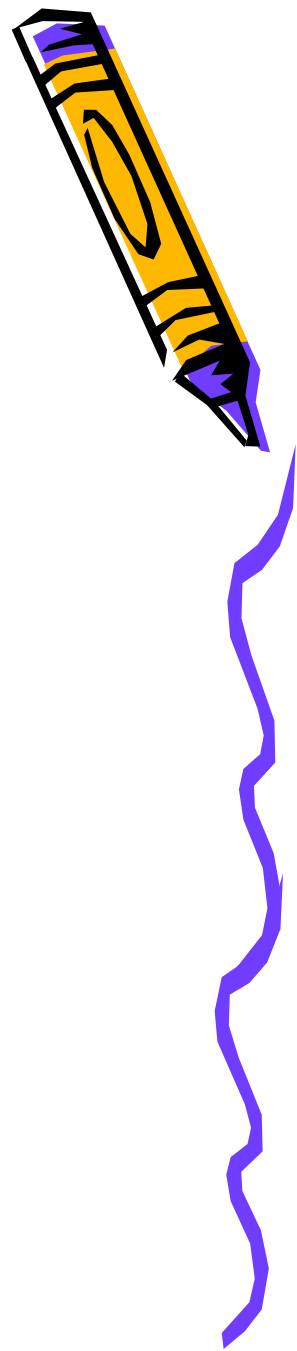


Body mass index-for-age percentiles: Boys, 2 to 20 years



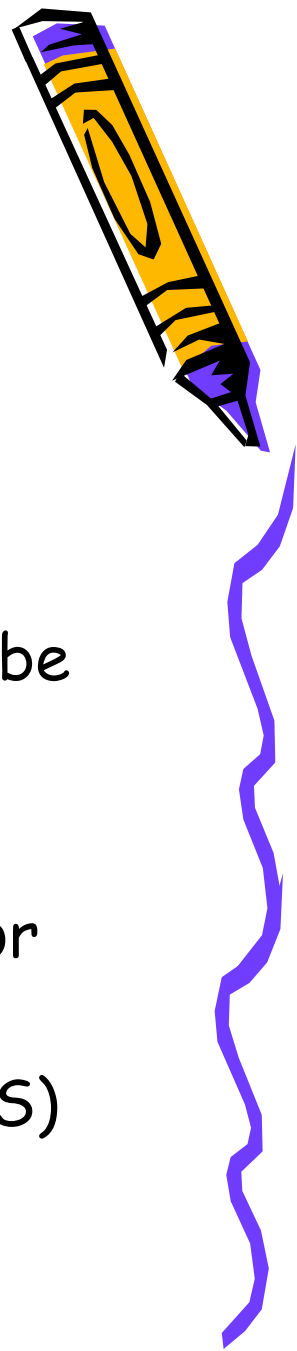
Health and Safety

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



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)



Health and Safety

- Chronic Medical Conditions

- Asthma

- Chronic respiratory disease

- Allergy based

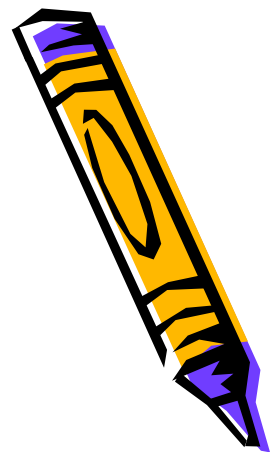
- More common in boys

- Increasing worldwide

- HIV and AIDS

- 2.2 million children under age 15 infected

- Early detection is important



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



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

