Chapter 7: Protecting Good Nutrition in Early Childhood Environments
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CLDDV 111: HEALTH, SAFETY, AND NUTRITION
Specific Nutritional Policies

1. What percentage of households in the US are food insecure?
2. Children in single-parent households are how many times more likely to feel food insecurity?
3. What percentage of children 2 – 5 years are overweight in the US?
4. What percentage of children 6 – 11 years are overweight in the US?
Answers

1. What percentage of households in the US are food insecure? **11%**
2. Children in single-parent households are how many times more likely to feel food insecurity? **Six times**
3. What percentage of children 2 – 5 years are overweight in the US? **10%**
4. What percentage of children 6 – 11 years are overweight in the US? **20%**
Specific Nutritional Policies

- Poor nutrition can negatively affect children’s developmental outcomes
- Early childhood environments fall short of offering meals and snacks that reflect good nutritional quality
- Diets of processed foods that are convenient and high in fat, sodium, and calories are the norm for many families
- Teachers can partner with families to make necessary changes to foster good eating habits and increase physical activity
- Low physical activity and obesity can increase hypertension and early heart disease in young children
Hunger, Food Insecurity, Malnutrition, and Misnutrition

1. Define hunger
2. Define food insecurity
3. What is associated with food insecurity in children?
4. Define malnutrition
5. What can hunger lead to in children?
6. Identify the three ways social development is affected when malnutrition causes physical growth to be below the norm?
7. Identify prevention strategies for malnutrition and misnutrition
Hunger, Food Insecurity, Malnutrition, and Misnutrition

1. Hunger: chronic shortage of necessary nutrients caused by recurrent or involuntary lack of food and may be a result of food insecurity
2. Food insecurity: Not having access to enough food to meet basic needs
3. Associated with food insecurity in children: negative nutrient and nonnutrient outcomes, increased risk for chronic disease and poor health
4. Malnutrition: occurs over time as result of not having enough food or not having enough of right kind of food
5. Hunger can disrupt health development of children, leading to weight loss, growth retardation, and weakened resistance to disease and cause cognitive difficulties
6. Three ways social development is affected when malnutrition causes physical growth to be below the norm: undernourished children may reduce their social and exploratory activities due to low energy; when child is not active teacher may change the way they act towards the child; smaller children may be treated as if they are younger than they are
7. Prevention strategies for malnutrition and misnutrition: nutrition education, balanced diet with selection of healthy foods, healthy food preparation methods, regular exposure to healthy foods
Obesity

- Childhood obesity is most prevalent nutritional disease in children
  - Tripled in past 30 years
- Overweight: child weighing more than 10% above the normal weight for their height
- Obese: child weighing more than 20% above the normal weight for their height
  - BMI compares weight to height
    - CDC classifies children in 95% and higher as obese and children in the 85% - 95% as overweight
Obesity

- Highest prevalence:
  - Hispanic
  - African-American
  - Native American
- Geographical context
  - Southeastern states highest risk
    - Especially lower Mississippi area
    - States west of the Appalachians
  - Lowest risk: Colorado, Utah, Wyoming

- Factors leading to obesity:
  - Cultural ideas about parenting
  - Conceptions about the body and what constitutes well-being
Obesity Linked to:

- Television viewing
  - Television advertising
  - Less time to engage in physical activity
  - Snacking while watching television
  - Television in room has worse outcome
Obesity Linked to:

- Sugary soft drinks
  - Replacing milk as beverage with meals
Obesity

**Working off the calories**
Like big soft drinks? Here's how many calories you're getting and what you'll have to do to burn them off.

<table>
<thead>
<tr>
<th>SIZE</th>
<th>12oz</th>
<th>16oz</th>
<th>20oz</th>
<th>30oz</th>
<th>40oz</th>
<th>50oz</th>
<th>52oz</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CALORIES</strong></td>
<td>140</td>
<td>248</td>
<td>270</td>
<td>371</td>
<td>568</td>
<td>694</td>
<td>780</td>
</tr>
</tbody>
</table>

**AMOUNT OF ACTIVITY IT WILL TAKE TO BURN THE CALORIES**

- One hour of piloting a plane
- An hour of tai chi
- An hour of ballroom dancing or bagging leaves and cutting grass
- An hour of downhill skiing
- It won't be until the sixth mile of your run that your body will start converting the last hundred of these calories.
- Walk for four hours straight at 2 mph and you'd burn these calories. (Make that five hours for the 64 oz. Double Gulp, officially discontinued in April but still available in some stores.)
- Riding your bicycle from the 7-Eleven on Liberty Avenue, Downtown, to the 7-Eleven in Washington, Pa., — roughly 30 miles — would burn off your Xtreme Gulp.

Sources: 7-Eleven Corporate, the Mayo Clinic and the American College of Sports Medicine. Burned calorie counts are for weights between 160 and 200 pounds.
Obesity Linked to:

- Attention-deficit/hyperactivity disorder (ADHD)
  - Children with ADHD not on medications were 1.5 times more likely to be obese children

- Portion size
Common Reasons for Obesity in Children

- Dietary excesses in foods containing fats, cholesterol, and sugar
Common Reasons for Obesity in Children

- Excessive portion sizes
- Poor infant/child feeding practices
Common Reasons for Obesity in Children

- Being female with parent who is obese
Common Reasons for Obesity in Children

- Lack of sufficient exercise
- Watching too much television
Common Reasons for Obesity in Children

- Family genetic predisposition
- ADHD
- Using food as comforting device or for emotional support
- Weight gain during critical developmental periods
Childhood Obesity

- Results from a combination of:
  - Familial factors
  - Nutritional factors
  - Physical factors
  - Economic factors
  - Psychological factors
  - Gender
    - Girls twice as likely to be overweight in families with one parent who is obese

- Public policies affect obesity
  - New York city restaurants banned most trans fats
  - State fairs banned trans fat
Effects of Overweight or Obesity

- Causes pediatric hypertension (high blood pressure)
  - AAP recommends children two years of age have lipid screening
    - Cholesterol and triglycerides
  - If found to have high levels, at age 8 take lovostatin drugs to keep cholesterol down
- Causes diabetes mellitus (type 2)
- Causes certain cancers
- Impairs immune system and ability to fight off infection and disease
- Causes sleep apnea
- Stress on weight-bearing joints
- Risk for children under 4 of cognitive impairment
- Lower self-esteem
- Powerful effect on peer relationships and social acceptance
- Children may be bullied and teased or excluded from activities by other children
- Can lead to emotional problems including depression and rage
~Prevention is the key to combating childhood obesity~
Recommendations to Prevent Childhood Obesity

- Consume adequate quantities of fruits and vegetables
- View television no more than two hours a day
- Sugar-sweetened beverages very limited
- Limit portion size
- Eat breakfast daily
- Limit eating out, particularly fast-food
- Sit down and eat as a family
Physical Activity and Exercise

- Healthy People 2010 has included increasing physical activity as one of its top 10 priorities.
- MyPyramid for Kids, ECERS-R, AHA and AAP recommends children be physically active for 60 minutes a day.
- National Association for Sport and Physical Education recommends that toddlers engage in 30 minutes of organized physical activity and 60 minutes of unstructured physical activity daily.

http://www.aahperd.org/naspe/
Physical Activity

- Help child establish goals for physical activity that are reachable
- Physical activity creates neural connections in the brain
- NAEYC “Beyond the Journal” suggests activities
- Kellogg provides a booklet, “Kids in Action” at [www.fitness.gov](http://www.fitness.gov)
- President’s Council on Physical Fitness and Sports

Ten Tips for Healthy Eating and Physical Activities for Young Children

- Eat breakfast
- Make movement part of your daily routine, at least 30 minutes a day
- Snack smart
- Work up a sweat
- Balance food choices
- Get fit with others
- Eat more grains, fruits, and vegetables
- Participate in physical activities at school
- Foods aren’t good or bad, balance them
- Make healthy eating fun and physical activities fun!
Electronic Media and Its Effects on Children’s Diet and Exercise

- Children are bombarded with advertisements for unhealthy food
  - 40,000 advertisements per year
    - 50% are ads for food
    - 80% of Saturday morning ads are low-nutritional foods
  - Cartoon characters sell unhealthy food
  - Misinformation about nutrition
    - Part of a balanced diet
    - Food labeled as fruit isn’t
Food Allergies

- Inability to properly metabolize food with important nutrients can contribute to malnutrition and misnutrition

- Reactions:
  - Rash
  - Difficulty breathing