Chapter 12 & p. 341 Child and Preadolescent Nutrition

Key Concepts

Children continue to grow/develop

Physically

Cognitively

Emotionally

Socially

in preparation for the physical and emotional changes of adolescence.

Eating and physical activity behaviors in childhood affect current and future health.

Body weights are seen at both ends of spectrum

Obesity

Underweight

Eating & PA now influenced by external forces such as…

Eat more meals/snacks away from home

Establishing Healthy Eating

Full growth potential

Prevents immediate & long-term health problems

Improves academic performance

Eating breakfast

Discrepancies that relate to health and growth:

SES, race, access to preventive health care, transportation

Definitions of the Life Cycle Stage “School-age”

Middle childhood - between 5 & 10

Pre-adolescence

Girls between 9 & 11

Boys between 10 & 12

Normal Growth and Development

Slowed velocity but steady growth

School years: + 7# & 2.5” /yr

Appetite & intake match growth spurts

85-94% BMI-for-age = overweight

>95% BMI = obese

Standards set based on 1977 data, why?

Nutrition Health and Examination Survey (NHES)

NHANES I, II (not III)

Normal Growth and Development

Physiological Development

Increases in:

muscular strength

motor coordination

stamina

“Adiposity rebound” or “BMI rebound” ~6 yo

Prep for adolescence

Cognitive Development

Increasing self-efficacy

Become concrete thinkers

See rational cause & effect

See another’s point of view more

Further develops sense of self

More independent

learn roles in family, school & community

Peer relationships become important

Feeding Skills

Increased motor coordination & improved feeding skills

Master eating w/ utensils

Involved in food preparation

Chores

Complexities of chores increase with age

Learn basic nutrition

Eating Behaviors

Influences:

Parents & cultural food preferences

Older siblings

Peer, teachers, coaches, vending machines

Media

Society

Family meal-times should be encouraged

Parents should be a positive role model

Need snacks

Still have strong internal hunger & satiety, now easily overridden by external influences

Pouring rights

Body Image and Excessive Dieting

Normal increase in adiposity may be misinterpreted

Young girls learn from their “restricting moms” (& dads)

Seem to have a preoccupation with size and weight at a early age

Imposing controls & restriction of “forbidden foods” may increase desire & consumption

Teach them to “honor their hunger”

Ethnic differences: body size preference & health beliefs

Be aware & be sensitive

Energy and Nutrient Needs

Energy needs:

vary by activity level, body size, sex & age

EER/kg decreases with age- why?

Protein: 0.95 g protein/kg/d

“By meeting individual child’s energy needs, protein is spared for tissue repair and growth.”

Vitamins & mineral consumption appears adequate for most U.S. children

Inadequate: Fe-, Zn & Ca+

DRI for Iron, Zinc and Calcium for School-Age Children

Common Problems

Iron deficiency

Less common

Dietary recommendations prevention: encourage iron-rich foods

Meat, fish, poultry and fortified cereals

Vitamin C rich foods

Dental caries

Seen in half of children aged 6 to 9

Tx: limit sugary snacks & provide fluoride

Rinse or brush after eating

Chewing problems

Overweight and Obesity

More kids continue to get fatter

Linked to inactivity

Less d/t increased kcals

~33-35% of kids 6-11 were obese 2015-2016 vs 11% in 1988-1994

Big differences in ethnicities

Definitions of ovwt & obesity Table 12.3

Characteristics of Overweight Children

Compared to normal weight peers, overweight children:

Are taller

Have advanced bone ages

Experience earlier sexual maturity

Look older

Are at higher risk for obesity-related chronic diseases:

hyperlipidemia, high liver enzymes, HTN, T2DM

Screen Time

Prevention of O and O

Goal: Weight maintenance or slowing rate of wt gain until < 85%

Focus on behaviors to prevent weight gain, so they grow taller -> improve BMI

May slow linear growth

May trigger the beginnings of disordered eating and ED

Dietary Supps

Typically not needed. Consider if:

Fad dieting or inadequate appetite

Chronic disease

Deprived family or parental neglect/abuse

Managing obesity w/ diet

Vegetarian or insufficient dairy

Failure to thrive

Recommended Diet

MyPlate

Iron – remains an ongoing issue

Fiber: Table 12.7

Fat: Table 12.8

Ca+ & vit D:

Fluids: water, not soda & sugar-sweetened bevs (SSB)

Need to:

Eat more: whole fruit, veggies, meat & Ca+

Eat less: sat fat and Na+

Other Considerations

Cross-cultural Considerations

Vegetarian Diets

Physical Activity

**Recommendations**:

Children should engage in at least 60 minutes of daily PA

Build an environment conducive to PA

Parents:

Model behavior

Limit screen time

**Currently**:

Girls are less active than boys

PA decreases w/ age

PA effected by season and climate

PE in school has decreased

**Include** free play, family activity, PE, organized sports and locomotion

Public food and nutrition programs

National school lunch program

School breakfast program

Summer food service program

504 accommodations: p 346

Not just food-related

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Food allergies at school (p. 341)

Keep environment safe for all

Avoid cross-contamination

Clean surfaces

Educate kids and staff