Chapter 10 & AND Position Paper  Toddler and Preschooler Nutrition

Key Concepts

Grow and develop physically, cognitively, and emotionally, adding many new skills rapidly

Learning to enjoy new foods and develop feeding skills

Increasing independence and exploration.

Key Concepts

Children have an innate ability to self-regulate food intake.

Caregiver provides what and when they eat

Child determines how much

Caregiver influences

development of appropriate eating

physical activity

lead by example

Life Cycle Stage

Toddlers— 1-3 years

rapid increase in gross & fine motor skills

Preschool-age children—3-5 years

increasing autonomy

play with others

increasing language skills

expanding self-control

Importance of Nutrition

Adequate nutrition for full growth and development

Undernutrition impairs growth, cognitive development & ability to explore environment

Of US Children

49% of kids under 6 w/ single female head of household live in poverty (2016)

44% of kids under 6 live in poor or near poor families: Hispanic, Black & American Indian

Normal Growth and Development

Toddlers: gain 8 oz/mo & grows 0.4 in/mo

Preschoolers: gain 4.4 lb/yr & grow 2.75 in/yr

Growth velocity slows

Accurate assessments are essential

Errors in measure = errors in health assessment

Length vs. Stature

Recumbent length < 24 months

Stature > 24 mos

Growth Charts WHO 0-2 yo CDC 2-20 yo

Toddlers Feeding Skills

Gross & fine motor development improved

9 to 10 months—weaned from bottle

12 months—refined pincer

12-18 months –

rotary chewing

18-24 months—able to use tongue to clean lips

Prevent choking

Toddlers Feeding Behaviors

Food rituals

May have strong preferences & dislikes

Food jags common

Serve new foods with familiar foods

Serve when child is hungry

Lots of imitation

Toddlers Appetite and Food Intake

Slowing growth -> ?

Toddler-sized portions

1 tablespoon per year of age per type of food

Nutrient-dense snacks needed

Limit grazing

Preschool Feeding Skills

Can use a fork, spoon, & cup

Cut food into bite-size pieces

Adult supervision still required

Appetite varies: related to growth

Increases prior to growth “spurts”

“Clean you plate”?

Include child in meal choices & preparation

Age appropriate meal-prep activities

Preschool Feeding Behaviors

They learn healthy eating

May prefer familiar foods

Appropriate portion sizes

Make foods attractive & fun

Making food an issue….don’t

May need 8–10 exposures to new foods before acceptance

Adult responsibilities:

“What”, “when” & “where”

Child’s responsibilities:

“How much?”

“Whether?”

Restricting palatable foods increases preference for the foods

Prefer sweet & salty

By 5 yo kids may be less responsive to satiety cues than earlier.

Energy Needs

13-36 mos:

EER = (89 x wt [kg] – 100) + 20

> 36 mos:

EER based on activity level, sex, age ht & wt

Protein Needs

Vitamins & Minerals

Most toddlers and preschool-age children have adequate vitamin & mineral consumption except for iron, zinc and calcium

Nutrition-related Problems

Iron-deficiency anemia

Dental caries

Constipation

Food security

Food safety

Weight

 Iron-deficiency Anemia

Etiology: rapid growth and poor consumption

More prevalent in low income & non-White kids

Preventing iron deficiency:

Limit milk consumption to 24 oz/d

milk is a poor source of iron

Iron-rich foods

Nutrition Intervention:

Counseling parents

Beef, fish, dark meat poultry + vit C, fortified foods

Prescription iron supplements

3 mg/kg/d drops

Reassess in 4 weeks

Early Childhood Caries (ECC)

Prevalence:

1 in 3 children ages 3 to 5 from 1999-2004

More prevalent in non-White kids

Causes:

Bedtime bottle with juice or milk

Sticky carbohydrate foods

Prevention:

Brush after eating or rinse w/ water

Fluoridated water & toothpaste – depending on age

Possible fluoride supplements

Constipation

Definition: Painful BM, hard, dry stools

Etiology: “Stool holding” and/or diet

Prevention: Adequate fiber, MD Tx

Food Security & Food Safety

Security = access at all times to sufficient, safe, nutritious foods

Insecurity may hinder growth & development

More likely: behavioral, emotional and academic problems

Safety: especially vulnerable to foodborne illnesses

Food safety practices by FightBAC:

Clean: wash hands & surfaces often

Separate: don’t cross-contaminate

Cook: cook to proper temperature

Chill: refrigerate promptly

 Overweight & Obesity

For kids > 2 yo

Ovwt = BMI-for-age 85th-94th

Obesity = BMI-for-age > 95th

Screen for: Wt &

Parental obesity, family medical history, wt related problems (OSA, asthma)

Behaviors: dietary & PA

BMI-rebound

Prevention:

Offer nutrient dense foods

Focus on behavior not weight

Such as…

Focus on Behaviors

Limit sugar-sweet beverages

Encourage fruits & vegetables

Limit screen time

Daily breakfast

Limit restaurants

Limit portions

Calcium rich foods

High fiber foods

Follow the DRI for CHO, prot & fat

Promote mod/vigorous physical activity 60 min/d

Limit energy-dense foods

4-stage approach to O & O

Stage 1: Identify early. Focus on prevention and behaviors

Stage 2: Structured eating plan and 60 min PA daily

Stage 3: Weekly visits with multi-disciplinary team

Stage 4: Surgery but not for this age

Dietary Recommendations

Tips for offering a variety of foods:

Physical Activity

Engage in active play several times each day

Indoor and outdoor activities

No screen time if < 2 yo

< 2 hours/d for all other ages

No screens in bedrooms