

Infant and Children Nutrition

Infant:

1. Cognitive Development

- Vision @ birth it is blurry
- Hearing
- Perception
- 0-12months: Sensory-motor skills are developed:
 - Recognize their name, faces, bright colors, and responding to all the senses.
- Learning through communication such as crying.
 - Children understand that crying not just to get needs met but as a means of calling parents or other caregivers.
- 6 to 9 months: Object permanence
 - Definition: an infant's understanding that an object or other people exist all the time continues to exist even if it is out of the infant's sight.
 - Before this develops it is "out of sight, out of mind"
 - Means: development of memory and goal oriented thinking

2. Nutrient Needs

- Adjust food intake downward.
 - Appropriate and should not force coax them to eat.
- Water: The most important nutrient of all.
 - ****Often most forgotten-water.**
 - The younger the child the more body weight is water and the faster water is lost and needs to be replaced.
 - In early infancy breast milk or infant formula is enough to replace water.
- Infants: require 100-calories/ kg of body weight daily.
 - This is more than twice the amount that adults need.
- 6 months: Energy needs (calories) begin to increase less rapidly, as the growth rate begins to slow down.
 - When slower growth rate infants are saving energy, and have an increase in activity.
- Infants are easy to know when they are hungry, they will tell you.
 - When no longer hungry infants will not accept more food.
- Should try to breast feed the child if possible.
- Breast-feed for about two years.
 - 6 months minimum
 - It offers the best nutrition for your babies' health.
- Introduce solid foods at about six months.
 - Or when the infant can sit with support and control its head movements.
- **Limit these foods:**
 - Sweets (lead to obesity)
 - Canned veggies (salty)
- **Omit these foods:**
 - Honey; because of the risk for botulism (a form of food borne illness).
- 1 year old:
 - Sits at the table
 - Eats with the family (many of the same foods)
 - While drinking out of a cup and not a bottle.
 - **Foods:** include cereals, whole milk (if off breast milk), legumes, whole grain bread, meats and meat alternatives, fruits and veggies.
- Try to keep foods within caloric needs, this varies.
 - You should consult with your doctor.

3. 1-year old meal plan

Breakfast= ½ cup whole milk
 ½ cup iron fort. Cereal
 ½ cup orange juice

Snack= ½ cup yogurt
 ¼ fruit

Lunch= ½ cup whole milk, veggies, and noodles
 1 egg or ¼ cup tofu

Snack= ½ cup whole milk
 ½ piece of toast
 1 tbs. peanut butter

Dinner= 1 cup whole milk
 2oz. meat or mashed legumes
 ¼ cup fruit
 ¼ cup potato, rice or pasta
 ½ veggies

Children:

1. Preschool (3-4 years)

- Physical
 - 3 years: has all 20 teeth, dress self, stand on tip toes, draw straight lines, and can wash and dry hands.
 - 4 years: skip and hop on one foot, catch and throw ball over hand, walks down stairs alone, and builds towers with 10 or more blocks.
- Psychological/ Intellectual
 - 3 years: 500-900 words, others understand speech, understands: big, little, past tense, on/ under, develop fears, and remembers events.
 - 4 years: 4 to 5 sentences, 1500 words, and likes to tell stories.
- Social
 - 3 years: parallel play, imaginative, and play in same sex groups.
 - 4 years: independent, do things own way, selfish/ doesn't share, mood swings, imaginary friends common, plays "doctor" (body curious), plays with other and will fight with siblings.

2. Early Elementary (5-7 years)

- Physical
 - 5 years: jumps rope, walks backwards, uses scissors, ties own shoes, draws shapes (square, circle..) and know three or more colors.
 - 6-7 years: stays busy, enjoys many activities, may like painting or drawing, has adult vision, loses first tooth and can ride a bike.
- Psychological/ Intellectual
 - 5 years: understands multiple directions, knows more colors, increased understanding of time, curious about real life, and can compare rules of parents and friends.
 - 6-7 years: understands concept of numbers/ day v. night, know different hands, can tell time, begins know difference between fact or fiction, can read age appropriate books and still "plays along with Santa.
- Social
 - 5 years: cooperative in play, more responsible, has good manners, like to cook and play sports, and become attached to parent.
 - 6-7 years: cooperates and shares, will cheat if able, jealous of other siblings, friends become more important, has temper tantrums, is modest about body.

3. Late Elementary (8-12 years)

- Physical

- More graceful, jumps, skips, dresses and grooms self completely, and use tools and instruments
- Psychological/ Intellectual
 - 8-9 years: can count backwards, knows the date, understands fractions, understands space and enjoys collecting.
 - 10-12 years: writes stories and letters, reads well and can use the telephone.
- Social
 - 8-9 years: Has a best friend, like competition, starts to have friends of opposite sex, interested in boy-girl relationships (but denies it) and likes clubs and groups.
 - 10-12 years: peer groups are important, begins identity seeking, likes and respects parents, and enjoys talking.
- Nutrition Needs: 4- 8 years
 - 2 liters water
 - Total Kcals: 1750/ 1650 (male/ female) daily
 - Total Carbohydrates: 45-65%
 - Total Fat: 20-30%
 - Total Protein: 20%
 - Total Fiber: 25 grams daily
- Nutrient Needs: 9- 12
 - 3 liters water
 - Total Kcals: 2400/ 2300 (male/ female) daily
 - Total Carbohydrates: 45-65%
 - Total Fat: 20-30%
 - Total Protein: 20%
 - Total Fiber: 31/26 grams daily
- Parents decide WHAT, WHERE (sitting in place, not standing) and WHEN
- Children decide "HOW MUCH"

4. Kids snacks (easy bite size foods)

- Carrots, chopped
- Apple slices
- Ants on a log (copped celery with spread peanut butter and raisin on top)
- Cheese on Crackers/ or cubed cheese
- Yogurt with granola
- Dry cereal
- Glass milk
- Frozen peas
- Peanut butter with apples/ carrots