



# Infant-Child Nutrition

## Breast feeding tips, preventing childhood obesity

Feeding your baby is one of the first things you do as a parent. It's also one of the ways that you develop a relationship with this new family member.

The way we feed our children during the first five years of life affects everything — their physical health, and their emotional and social development, as well as how they learn.

Feeding our young children well results in more than good health. Feel-

ings of safety, security and bonding between adults and children are also results of a positive feeding relationship.

The results don't change for school-age children and teens. Family mealtimes create stronger family bonds by giving family members the feeling of being needed and of belonging to the family. Eating together promotes better communication. Families can keep up-to-date on what's going on with school, jobs and friends. Parents can teach chil-

dren table manners, basic cooking skills, social skills, family values and a sense of community.

Teens continue to benefit from family meals. Results of recent studies show that the more often teens eat at home, the more well-adjusted they are. Those who eat with their families at least five times a week are less likely to be depressed or do drugs, and more likely to be motivated in school and to have better relations with their friends.

## Ages & Stages

### Infants

#### Bottlefeeding

If you have decided to bottle feed your baby, you will use a formula. Formulas are usually made from cow's milk, or other special products to meet the needs of a growing baby. There are three different forms of formula:

- **Powdered Formula:** the cheapest, and fairly easy to prepare.
- **Concentrated Formula:** more expensive than powdered formula. You have to add the right amount of water.
- **Ready-to-Feed Formula:** the most expensive, the easiest to use.



Whichever formula you use, follow instructions carefully. Make sure that bottles and nipples are washed and clean.

When you bottle feed your baby, keep the nipple full of formula so he doesn't swallow air. Hold your baby close with his head up. Never leave your baby alone with the bottle propped up, and never put him to bed with a bottle.

#### Breastfeeding

The first thing to remember is to relax! Being tense and uptight can affect the natural flow of milk. You can sit in a chair or lie down, whichever is more comfortable for you. Your baby's nursing will help your milk to flow. Don't rush. Take your time. This is a learning time for both of you.

During the first few days, your nipples may be slightly tender from

your baby's sucking. But as you learn to relax and your milk flows freely, the soreness will disappear. If your breasts remain sore, it may be that they are very full of milk. Nursing your baby long enough and often enough to empty both breasts will help. You may have too much milk, and your breasts may leak a little. If this happens, tuck a clean handkerchief or a breast pad in your bra, or gently squeeze some milk from your breasts to relieve the pressure.

Remind yourself that the time you spend relaxing and enjoying your new baby is very important for both of you.

#### Tips on Weaning



Weaning, taking away the breast or bottle and teaching a baby to use the cup is a gradual process that requires a baby to learn new skills. Some babies learn to drink from a cup easier than others. Begin the weaning process at four to

six months of age when the baby is ready to start solids.

- Keep your baby on breastmilk or iron fortified formula until twelve months of age, even if they drink from a cup. Then use whole milk until the child is two years old.
- Use a cup without a spout with handles that fit into the baby's hands
- Use a cup with a curved edge to make drinking easier.
- Begin by letting your baby take small sips of breastmilk/formula or juice from the cup.
- Drink from a cup along with your baby, to teach them how.
- Weaning is easier if the baby has never been put to bed with a bottle.
- Expect the baby to take less breastmilk or formula during the weaning process.
- If you are having a hard time getting the bottle away, try using only water in the bottle.

### Why Wean

- Your baby will take more solid foods which are richer in iron if they are not filling up on breastmilk, formula, or milk. This will help to prevent low iron in the blood which sometimes occurs during times of rapid growth.
- Intake of liquids from the bottle for too long a time allows for the constant flow of milk or other liquids over the teeth which can lead to bad teeth. (baby bottle tooth decay). Fluids from the bottle stay on the teeth longer than fluids from a cup.
- Drinking from the bottle while lying down can lead to more ear infections. It causes the liquid to go to the back of the throat. This is very close to the inside of the ear, and may be how ear infections start. While weaning, set baby up to give a bottle. Make

sure the baby does not go to sleep with the bottle.

- Weight may become a problem if a child is still drinking from a bottle after their first birthday. A child may get more calories than they need if they are drinking too much fluid from a bottle and not eating enough solid food. Too many calories mean too much weight. A one year old child needs: 16 oz of milk per day from a cup and 3 oz of 100 percent fruit juice per day from a cup.

## Toddlers



Between the first and second birthday, toddlers' eating habits change a lot. Growth really slows down after one, and the toddler will begin eating less. While not eating a lot, toddlers will still have lots of energy.

Toddlers sometimes go on food "binges" and want only one kind of food (peanut butter sandwiches every day). They usually do not like foods that are gritty, stringy, gummy, spicy or mixed together. They do like mild flavors and lukewarm foods.

Toddlers are busy learning about their world and want to explore everything, including their food. Because of this, a toddler's mealtime behavior can be frustrating to adults. They like to touch, smell and make sounds with their food. This is normal for a toddler, but some limits need to be set and consistently enforced, because behaviors such as food throwing can get out of hand.

Toddlers love finger foods that are easy to pick up. Child-size dishes and utensils are also easier for toddlers to handle. Plates that are 6 to 7 inches across are a good size. Plates with slightly raised sides help toddlers push food onto a spoon. All dishes

should be unbreakable.

### How parents can help

- Serve small amounts of food. Provide finger foods which children can pick up and eat.
- Have the meals at regular times.
- Make the mealtime as pleasant as possible.
- Use bright colors. Orange carrots, bright green beans, orange gelatin...
- Let toddlers eat with the family as soon as possible. They like having company, and it makes them feel like part of the family.
- Remember safety rules. If small children must be in the kitchen while you cook, keep them in a playpen or highchair and away from the stove.
- Set an example. Toddlers like to imitate. Seeing you eat foods is the best way to teach them to eat new foods.
- Be flexible. Children may want the same food every night for supper for several days, then suddenly refuse to eat it.

## Preschool



When children reach their preschool years, many of their major feeding problems go away. While they still have fairly small appetites, their eating patterns are more stable. Preschool children are eager and ready to learn about foods and are more likely to accept new foods if they can help you prepare them. Helping with meals can be a tremendous learning opportunity. Preschoolers can learn about new words, relationships and locations. They can learn about size, and quantity as they count, measure cups of milk, and compare large and small

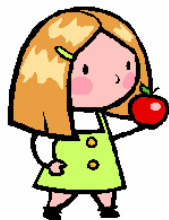
items. Some cooking activities such as beating with an egg beater and peeling carrots with a vegetable peeler give preschoolers practice in motor coordination, while steps in recipes teach the idea of order and sequence.

Preschool children are influenced by other people, both adults and children. If they hear their parents or friends say they do not like a particular food, the children will often decide they do not like that food either. Foods they hear about are often requested. Preschool children need good models to copy in order to have healthy diets. Be sure to eat healthy foods yourself when you are around young children.



### How parents can help

- Involve preschool children in learning experiences with food.
  1. Tear lettuce into small pieces for salad.
  2. Spread butter or jam on bread.
  3. Place toppings on pizzas or snacks.
  4. Shape cookie dough into balls.
- Show children that food and cooking can be fun.
- Encourage children to do as much as possible by themselves
- Offer some choices. Children like to make decisions. If they are fond of vegetables, let them choose between two. Preschool children often prefer raw vegetables to cooked vegetables.
- Keep the atmosphere at the table quiet, happy and relaxed with conversation about other things rather than food dislikes.
- Do not play tricks. Tricks and



punishment with food cause distrust and unhealthy attitudes.

- Do not use sweets as reward, or they will seem more desirable than they are. Desserts and sweets should be given no greater emphasis in the meal than any other food.
- Be consistent in what you expect and accept in terms of mealtime behavior. Preschoolers need some guidance.
- Prepare special and fun lunches, and consider serving them in unusual places for a treat.

### School-Age Children

Early school-age children are able to take an increased amount of responsibility in their homes. They can help with meals on a regular basis; make salads, set the table, or wash the dishes. Do not forget safety and health when cooking. Remind children not to cough or sneeze into the food and to start with clean hands. School-age children are often interested in cooking special surprises for others (birthday cake for dad or a pancake breakfast for grandma). Cooking is a skill that must be learned.



School-age children can understand the concept of nutrition and are being introduced to terms like calories, nutrients, vitamins, and minerals. They learn a great deal about how to stay healthy. However, by this stage children have formed many of their basic attitudes toward food and eating.

By the time children reach school-age, food has acquired strong social and cultural meanings. Children's cultural backgrounds and family traditions will influence what they like to eat and the feelings they associate with different foods. It will also influence when they like to eat and the amount they eat at a particular meal.

### How parents can help

- Use mealtime to relax, socialize, and share food. If children feel comfortable, they will talk about their friends and school.
- Help children learn about eating customs of other cultures. Especially those they may be studying in school or those from which some of their classmates come.
- If school-age children you care for use the stove, make sure they know and follow safety rules. Accidents in the kitchen can be dangerous. Here are some good rules to follow.

1. When you fry food be sure to blot any water or frost off the food before you place it in the frying pan.

2. Use a pot holder when handling a hot dish so you will not drop it and burn a child or yourself. Never pass a container of hot food or liquid over the head of another person.

3. When lifting lids from pans, lift the far side of the lid first, so the steam will escape away from your face.

4. Be sure that children do not play with stove controls.

5. Keep all flammable liquids and spray cans away from the stove or heat.

6. Always put hot drinks and hot dishes near the center of the table and out of the reach of children.

7. Check gas burners frequently so you can relight them before too much gas escapes, if the flame blows out.

- Be careful that a piece of glass does not chip off when opening glass food jars.



- Provide a variety of healthy food

# Preventing Childhood Obesity

Childhood obesity is one of our nation's most pressing health challenges. Unhealthy weight gain due to poor diet and lack of exercise is thought to be responsible for over 300,000 deaths each year in the U.S., with the annual cost to society estimated at over 100 billion dollars.

## Health Consequences Associated with Childhood Obesity

Obesity is associated with a host of negative short and long term health consequences including Type 2 diabetes, heart disease, hypertension, certain cancers, breathing difficulties, arthritis and joint problems. One out of six overweight children age six and older has been reported to have one or more heart disease risk factors.

In addition to the physical health problems associated with overweight and obesity, researchers have found being overweight during childhood can also have a damaging impact on children's psychosocial and emotional development. Overweight adolescents were more likely to be teased, and as a result, were more likely to contemplate and attempt suicide than adolescents who were not teased about their weight.

## Factors that Contribute of Childhood Obesity

Childhood obesity is often thought of as a problem that results from simply overeating, however, there are a number of genetic, biological, behavioral, and cultural factors that can influence a child's weight. According to a growing number of researchers, the current obesity epidemic is influenced, in large part, by an environment that promotes excessive food intake and discourages physical activity.

Other factors that have been found to possibly contribute to childhood obesity include a family history of obesity, medial illness, certain medications, stressful life-events or changes, family and peer problems, low self-esteem and depression or other emotional problems.

tional problems.

## How many calories do kids need?

For most routine activities like standing, sitting and walking, the recommended daily number of calories for boys is 2,000 for age seven to 10 years, 2,500 calories for ages 11 to 14, and 3,000 calories for ages

15 to 18. The range for girls is 2,000 calories for 7 to 10 years, and 2,200 calories for 11 to 18 years. Keep in mind that these numbers are estimates, and don't take into account the varied metabolism of individual children, which would dictate a higher or lower daily calorie requirement.

The most important consideration when determining a child's energy needs is energy expenditure. Though calorie control plays a significant role in children's weight maintenance, it must be paired with regular exercise to achieve optimum health and fitness benefits.

Due to safety concerns, children aren't walking to school anymore, and most children aren't getting enough vigorous physical exercise from their school's physical education program. The National Institute of Child Health

and Human Development found in its 2003 study that third-grade students received an average of 25 minutes per week of moderate to vigorous activity during the school day. Throw in the hours spent in front of the television, video games and computer at home, and you have an inactivity crisis. Experts recommend that all children and youth participate in at least 60 minutes of physical activity every day.

**The number of overweight children in the United States is double what was reported in the 1980's, and the increase spans the country in all age, race and gender groups.**

**Though it is important for children to be calorie-aware, you don't want them to be calorie-obsessed.**

## References

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18th St. & Centennial BLVD  
P.O. Box 5728, Fargo, ND. 58105  
701-231-5200, 701-231-5205 (fax)