

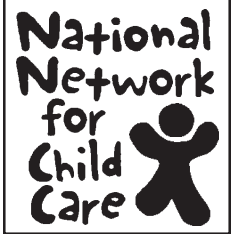


CHILD CARE CENTER

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CONNECTIONS

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Meeting the Nutritional Needs of Young Children*

Child care providers face many challenges as they plan and prepare nutritional meals and snacks for the children placed in their care. It is important that you know and understand the developmental characteristics of children so you will be equipped to deal with their ever-changing needs and nutritional challenges.

Infancy to Age Three

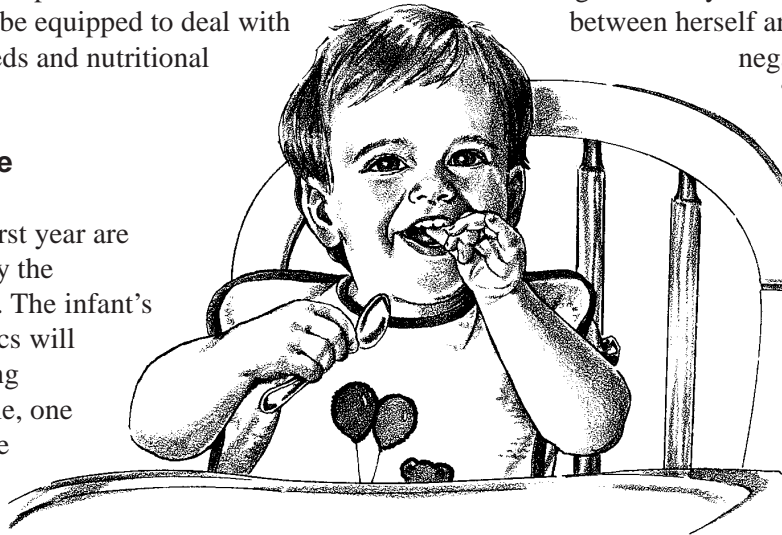
Feeding habits in the first year are generally established by the pediatrician and parent. The infant's individual characteristics will further shape the feeding experience. For example, one baby might take a bottle quickly while another has a slower approach. Solid foods will be introduced around six months old according to the nutritional needs of the infant, the preferences of the parent, and the doctor's advice.

From 12 to 24 months, the young child experiences a change in how she thinks. Now that she is walking, the world takes on a new dimension, and she can see and reach for food on counters or other people's plates. Being an egocentric being, your food is her food, and her food is her food! New information and new skills are flooding into the toddler's experience, and it can be great fun and overwhelming at the same time.

At age two, the toddler's use of the word "no" is like a slap for some parents and child care providers. If we listen to the infamous "no" with the understanding that the child is learning to identify how to establish a boundary between herself and you, then "no" isn't so

negative. Asking a two-year-old, "Do you want some milk?"

brings a "yes" or "no, I want juice" response. Many child care providers will find that offering the toddler milk or orange juice allows the toddler to make the choice and reinforces her independence. Too many choices are frustrating as the toddler lacks the experience to evaluate; choices are more sensory.



Preschool: Ages 3 to 6

By age three, some toddlers may have moved past establishing independence, but others will still be saying "no" very vigorously. It is a good time to introduce a variety of finger foods after checking with the parent about allergies. Developmentally, toddlers are working on setting boundaries; so, the best approach might be to appeal to their curiosity without insisting that they try new food. This age can also be fearful, so don't be dismayed if a child rejects a food due to its appearance or texture. Another day will provide another try!



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The four-year-old is so much more mature than the three-year-old. The four-year-old is more aware of social expectations and can probably wait his turn for the carrot sticks. However, if this child is especially hungry, don't be surprised if his desire for something to eat overwhelms his new manners. Still, the four-year-old likes to please adults, and a slight frown or mild word will probably go a long way to change behavior. Adults need to remember that the four-year-old acts older but is still at the beginning of learning to be a social being.

Eating skills are much better established by age five. This young child may still be clumsy with a spoon, and getting his soup to his mouth may be quite challenging. The energy of a five-year-old can get in the way of quiet eating since this child is so busy learning skills. A child care provider may meet a five-year-old who is very certain of what she wants for lunch, and this child may challenge an adult's patience.

Elementary School-Aged Children

Nutrition for children ages six, seven, and eight is best examined from the individual rather than the age perspective. While eight-year-olds have a better sense of future than younger children, some eight-year-olds will complain when their lunch or snack is delayed or changed without notice. All three ages are deep into skill development and can be encouraged to help prepare food

(creatively) for the other children. Sevens and eights are more likely to respond to requests to model good manners than a six-year-old will be. Six-year-olds who



come to day care after school will tend to be tired and need a nutritious snack that rejuvenates their energy. Snacks for seven- and eight-year-olds can be a time of talking and relaxing.

Appetites are alive and well in children ages 9–12. Growth is slow and steady for most children, although some girls will enter puberty around this time. Child care providers can expect most children to have a growth spurt. The small motor skills of this age child are being perfected, and they can be trusted to help prepare nutritious snacks. This age can be self-conscious, so healthy snacks will support positive eating habits.

Basic Nutrients

Children can get the nutrients they need if they eat a variety of foods every day from the five food groups,

which include grains, vegetables, fruits, milk, and meat and beans. Fats, oils, and sweets supply mainly calories but little or no vitamins and minerals and should be used sparingly. No one food contains every nutrient. Children need to eat a variety of foods within each group. A child who favors bananas, for example, should be encouraged to eat apples, oranges, and other fruits as well.

Variety is important, too, because nutrients need each other to do their work. For example, adding tomatoes, which are rich in vitamin C,



to a salad helps you get more iron from the vegetables. Children need food for growth, energy, and general health. If children do not get the right nourishment during their early years, they might not ever make up for the growth they miss. They may get half or more of their daily food intake while in your care, so the food you serve is critical to their growth and health.

The body needs a variety of nutrients for good health. Some key nutrients include: protein, thiamin, carbohydrates, riboflavin, fat, calcium, vitamin A, niacin, vitamin C, and iron. Three of these key nutrients supply energy: carbohydrates, fats, and proteins. Normally, the body breaks down carbohydrates and fats for energy, but if these are used up, the body uses protein. Our bodies need energy constantly to do their work—pumping blood, repairing body tissues, walking, and running.

Carbohydrates. There are two types of carbohydrates: starches and sugars. Sugars come from fruits, table sugar, honey, syrups, and milk. Starches come from grains (wheat, rice, corn), dry beans and peas, and certain vegetables such as lima beans, green peas, potatoes, sweet potatoes, pumpkin, and winter squash. During digestion, all carbohydrates—both sugars and starches—are broken down into glucose, the form of sugar circulating in the blood. Aside from supplying energy, carbohydrates also furnish fiber. This is the tough, “woody” part of plants the body cannot digest. Fiber has been called “nature’s broom” because it sweeps waste from the large intestine.

Protein. Building and repairing body tissue is the most important function of protein. The greatest need for protein is during periods when cells are growing rapidly, such as during infancy, childhood, adolescence, and pregnancy. Protein is made up of 22 amino acids. Eight of these amino acids must come from foods eaten each day and are called the essential amino acids. The rest are manufactured by the

body. Many foods contain some amino acids. Foods that contain all eight, such as meat, milk, and eggs, are called complete or “high quality” proteins. Proteins from plant foods are incomplete. One or more of the eight essential amino acids is always missing. However, these foods can be combined to also make the complete “high quality” proteins and save you money, too. Here are some examples of foods you can combine to provide “high quality” proteins:

- *Beans and Grains:* beans and tortillas, pea soup and cornbread, beans and whole wheat biscuits;
- *Beans and Seeds:* garbanzos and sesame seeds, soynuts and sunflower seeds;
- *Beans and Cheese or Eggs:* pintos and cheese, tacos, beans and eggs;
- *Cheese, Eggs, and Dark Green Vegetables:* broccoli and cheese, spinach soufflé;
- *Eggs, Cheese, Milk, and Grains:* macaroni and cheese, oatmeal and milk, toast and eggs, rice pudding; and
- *Seeds and Dark Green Vegetables:* sesame seeds and Swiss chard, sunflower seeds and broccoli.

Vitamins and Minerals. The body stores many nutrients to be used as needed. But the body does not store certain vitamins, such as vitamin C, thiamin, riboflavin, niacin, and other B vitamins, as well as zinc. Therefore, children need to eat foods containing these vitamins every day, as well as foods with the mineral zinc. Vitamin A is very important for growing children. It is needed for building body cells, bone growth, healthy teeth, vision in dim light, and healthy mucous membranes in the digestive tract, nose, and mouth. Vitamin A-rich food should be served daily.

Children need calcium because their bones and teeth are forming. Children who don't like milk should be encouraged to eat foods made with milk, such as creamed soup, as well as other dairy products, such as yogurt and cheese. To increase the amount of calcium the body absorbs, make sure children get plenty of vitamin D. Serve milk fortified with vitamin D or foods rich in vitamin D, such as liver and eggs.



Iron. Some experts are beginning to think that many serious health problems, such as heart disease and cancer, are related to what we eat. Because we develop our eating habits in childhood, it makes sense to start children out right. The single most common nutritional problem in babies and preschoolers is a lack of iron. Sometimes it's hard to pinpoint anemia without a lab test, but anemic

children are often pale, listless, irritable, and have little energy or appetite.

You can help prevent anemia by feeding children iron-rich foods such as red meats, fish, poultry, leafy green vegetables like spinach and mustard greens, raisins and prunes, iron-enriched breads and cereals, dry beans and peas, and egg yolks. You can increase the iron the body absorbs from non-meat foods by eating food rich in vitamin C. For example, drinking orange juice helps the body absorb the iron in eggs.

On the other hand, you can decrease iron absorption by drinking tea, coffee, or a soft drink containing caffeine during the meal or up to an hour afterward.



Fats and Sweets. Many Americans eat too many sweets and foods high in fat. Fats are naturally present in some foods, such as fatty meat, nuts, whole milk, and cheeses; we cannot avoid fats. However, we often add fats and oils in cooking, such as in fried foods, pastries, gravies, and salad dressings. Many recipes offer ideas for preparing delicious foods with less added fat.

The amount of energy a food supplies is measured in calories. Fat gives more than twice as much energy as the same amount of carbohydrate or protein. One gram of carbohydrate, for example, gives you four calories, but a gram of fat gives you nine. It is important to note, however, that infants and toddlers do need a certain amount of fat in their diets, and it is unwise to use such things as low-fat milk and other low-fat products prior to their second birthday. In fact, limiting the child's fat intake can actually impair the child's development.

Sugars and most sweets don't offer much more than calories. They are often a favorite with young children who will want to fill up on sweets rather than nutritious foods. So, go easy on candy, pies, cakes, pastries, and most cookies. Look for cookie recipes that offer more than empty calories. For example, oatmeal cookies with wheat germ added have a sweet flavor and offer more beneficial nutrients and less empty calories than simple butter cookies.

Water. One important, and often ignored nutrient, is water. It accounts for more than half the body's weight. Water serves as a lubricant in the body, helps remove waste, and regulates body temperature. Make sure the children in your care have access to plenty of water, particularly on those hot days when they play outside.

How Much Food Is Best?

Obesity is often caused by overeating. Children can learn to overeat by watching their parents or other adults. They may learn that food is a reward for good behavior. For example, adults may say: “Here’s a piece of candy for being such a good girl or boy.” Or they may learn that food can fill needs other than hunger, such as when they miss mommy, they suck on a bottle or eat a cookie.

The best guide for feeding children is their appetite. In feeding infants, learn to recognize the first sign of fullness, even if the bottle still has formula in it. Toddlers and preschoolers often have poor and unpredictable appetites because they are not growing as fast as before. It is best to offer small servings and allow children to serve themselves when they are able.



Encourage children to taste all foods served—at least one bite, but never force them to eat or punish them for not eating. Avoid praising children for “cleaning their plates,” and do not withhold dessert if a child does not eat everything. This way, children learn to respond to their hunger and not someone’s praise. Because young children have small stomachs, it is hard for them to get all the nutrients they need in three meals, so nutritious snacks are essential.

School-age children may change from day to day in the amount of food they want. If you watch children over time, you will notice that each child’s appetite has a sort of rhythm. First, the child seems to eat you out of house and home but then eases up for a few weeks or even months. The increases in appetite correspond with increases in physical activity and with growth spurts. It is fascinating to watch the way children in the school-age years grow. First their bodies get a bit more thick and heavy, and they eat a bit more than usual; then they seem to stretch out overnight and get taller and a bit thinner.

You may be tempted to coax children to eat more, but it is best to allow children to serve themselves and just note the general amounts eaten and their food preferences. It is perfectly alright to ask children for their opinions of the food you serve. They may have preferences that can fit quite well with the menu plan and overall nutritional needs of the group.

Realizing that the children in your care have varying tastes and appetites, plan nutritious meals and snacks that will provide the nutrients their growing bodies need. Do not skimp on carbohydrates because these contain essential nutrients. And, between meals, encourage children to run, jump, dance, ride tricycles, and play outdoors to get lots of exercise.

*Adapted from *The Child Care Provider Program: Training for Family Day Homes and Licensed Facilities*. Texas AgriLife Extension Service, Texas A&M System, 2002.

Helpful Websites

MyPyramid for Kids Website
United States Department of Agriculture (USDA)
<http://www.mypyramid.gov/kids/index.html>

A Close Look at MyPyramid for Kids
USDA
http://teamnutrition.usda.gov/resources/mpk_close.pdf

MyPyramid for Kids Classroom Materials
USDA
<http://teamnutrition.usda.gov/resources/mypyramidclassroom.html>

MyPyramid for Kids Coloring Page
USDA
http://teamnutrition.usda.gov/resources/mpk_coloring.pdf

The Children’s Nutrition Research Center
<http://www.kidsnutrition.org/>

CYFERNET Children’s Nutrition Directory
<http://www.nccc.org/cyfernet/nutrition.page.html>

Kids Interactive Website
<http://kidnetic.com/>

Child Care Center Connections Editorial Staff Texas AgriLife Extension Service

Stephen Green, Ph.D.
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Design Editor