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Nutrition for Tots — Raising Healthy Eaters Through Balance and Variety
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Toddlers drinking soda and going gaga for French fries—what’s wrong with this picture? Children’s diets have become a nutritional nightmare. But dieters can intervene during the precious wonder years and help shape lasting, healthy food habits.

Amid all the hoopla surrounding America’s obese kids, the nutritional significance of the toddler years seems to have been left behind. Yet, pediatric health experts express concern that these years may be the most crucial when it comes to encouraging healthy eating behaviors.

“The toddler years are formative and really important. The first two years of life is when we have the most impact. It’s the time to reach parents,” says Eileen Behan, RD, who works in family practice and authored the upcoming Baby Food Bible: Complete Guide to Feeding Your Children, From Infancy On.

As children journey from a milk-fed infancy to an independent, omnivorous diet, it is important to ensure that they are eating to adequately support growth and development, as well as set up good eating behaviors for the future to prevent obesity and its related mayhem. During this time, toddlers (frequently defined as children aged 1 to 3) stake their independence by developing self-feeding skills and increasing control over their food choices. This period also sees children add to their repertoire improved motor skills, awareness of table behavior, and increased appreciation for tastes and food preferences to go along with their increased energy and nutrient requirements.

But despite toddlers’ newfound independence, feeding is still a source of concern for many parents. FITS evaluation by age, ethnicity, and eating occasion also noted that parents can better understand just what toddlers are eating. Surprise, surprise—it’s not enough of the good stuff. FITS found that 18% to 33% of toddlers consumed no discrete servings of fruits or vegetables on a given day. Instead, French fries, doughnuts, soda, and candy were the standard fare.

“In every age group, people are not getting enough fruits and vegetables. The whole balance is off,” says Elizabeth Ward, MS, RD, nutrition consultant and author of The Complete Idiot’s Guide to Feeding Your Baby and Toddler.

Young children appear to rely on a narrow arsenal of foods. FITS discovered that during early childhood, only 10 foods provided 60% of the calories consumed. Milk and/or formula provided 24% of energy during the toddler years, while fruit-flavored drinks and juices provided an additional 11% of energy, making them the second and third most significant sources of energy for toddlers. Other foods that topped the list for energy intake among toddlers were cheese, breads, poultry, added fats, cereals, butter/margarine, cookies, and processed meats. Only two fruits and vegetables—bananas and white potatoes—were among the top 25 sources of energy in young children’s diets.

Toddlers are typically fed a diet packed with low–nutrient-density choices. Food items high in added fats and sugars, including sweetened beverages and cereals, butter/margarine, cookies, processed meats, and cakes/pies, provided approximately 19% of the total energy in the diets of toddlers, according to FITS. By the age of 2, more than 11% of children were drinking carbonated sodas. For an afternoon snack, 17% of toddlers consumed cookies, 13% consumed chips, and 11% consumed candy. The toddler years are a formative and really important period for healthy eating behaviors.

In an age of parental modeling, food availability, peer behavior, and rewards for food intake,4 parents are fearful that their children will get hungry, which is why they think so many moms tote snacks with them. But grazing all day may mean children are not interested in meals, frustrating their parents to no end. It’s OK for
Obesity is a child's roadblock to a healthy life. Children need to be in touch with their hunger and satiety so they can regulate their food intake," says Ward, who encourages parents to consider snacks as mini-meals with nutrient-dense foods such as 100% orange juice and whole wheat crackers rather than highly refined foods such as Goldfish crackers and a Capri Sun.

Mealtime locations for toddlers can also make a difference, according to FITS findings. Lunches eaten at a day care facility were significantly higher in calcium, phosphorus, magnesium, vitamin D, potassium, and riboflavin compared with those eaten at home or away. Trans fat intake was significantly lower for lunches eaten at home compared with away from home. For lunches eaten at away-from-home locations, the most frequently consumed item was French fries (35% of toddlers). Carbonated beverages were consumed at away-from-home lunches by 16% of toddlers compared with 3% at home and none at day care.6

The FITS data highlight the possibility that many toddlers' diets may be inadequate in some vitamins and minerals, yet high in added fats and sugars. "Every time you feed something to a child, it's an opportunity for good nutrition," says Ward, who uses the 90/10 rule: 90% of what they eat should be what is good for them and the other 10% is for fun.1

Vulnerable Nutrient Intakes for Toddlers

Pediatric experts are concerned about some specific shortfalls in nutrients among toddlers. Iron is of particular concern because deficiency can result in cognitive and motor deficiencies that may not be reversible. Ward reports that she finds iron intake is often overlooked in small children, noting that adequate iron promotes peak cognition in kids. According to the National Health and Nutrition Examination Survey III, 7% of children under the age of 3 were iron deficient, and one third of these were also anemic. Toddlers should have 7 milligrams of iron each day.1

Vitamin D intake in toddlers is also an issue. Young children who consume less than 2 cups of fortified cow's milk and do not get regular sunlight exposure should receive a daily supplement with 200 international units of vitamin D, according to the American Academy of Pediatrics (AAP).4 "Calcium in toddlers is one of the biggest concerns for me," adds Kelly Vieira, MS, RD, CSP, clinical nutritionist at Children's Healthcare of Atlanta and public relations chair of the Pediatric Nutrition Practice Group of the American Dietetic Association (ADA). Toddlers should have 500 milligrams of calcium per day, which is easily met if children get two servings of dairy foods every day.4

Essential fatty acid intake in young children is a growing worry. As children move from breast milk and formula to cow's milk, the amount of essential fatty acids—linoleic acid and alpha-linolenic acid—is decreased. Cow's milk, especially skim and lower-fat milk, have very low levels of these fatty acids. Surveys indicate low linoleic acid intakes in toddlers who are fed cow's milk. There is also a rising interest in the intake of the long-chain polyunsaturated products of these fatty acids, arachidonic acid (AA) and docosahexaenoic acids (DHA), in early childhood.1,4 "There is evidence that DHA is very important in the first two years of life," notes Ward. Fat and cholesterol restriction should be avoided in children younger than the age of 2. After this, fat should account for 30% of total daily calories, with an emphasis on polyunsaturated fats.1,4

Toddlers' diets can also be low in fiber, although some experts argue that the average recommendation for fiber for children aged 1 to 3 may be difficult for most to achieve. Since dietary fiber may play a role in reducing the chances of heart disease and cancer later in life, it is important to emphasize fruits, vegetables, whole grains, and legumes in the diet, along with plenty of water to accompany a higher fiber intake.1

Some parents are making up for uncertain diets by pushing multivitamin/mineral supplements on their toddlers. A reported 31% of toddlers use dietary supplements. Nutrient supplements were the most significant source of vitamin E and niacin in the diets of young children; the second highest source of folate, thiamin, riboflavin, iron, and vitamins D and B12; and the third highest source of vitamin C.7

"I think parents are more concerned about issues like omega-3 fatty acids and flaxseed oil supplements. I think parents are looking for other means of nutrition for their children," says Vieira. Although vitamin D, calcium, and iron should be supplemented in select toddlers, the routine use of multivitamins is not considered necessary, according to the AAP. Supplements may be appropriate for children at high risk of nutritional deficiencies.4

A Gold Star for Good Eating Behavior

As any parent will tell you, toddlers aren't always easy-to-please little diners. They can be picky, unpredictable, and stormy and get hungry at any time. Toddlers don't come programmed with an innate sense of what is "healthy," and they are prone to food fads, when they repeatedly demand the same food.

So what's a parent to do? Good nutritional habits can be nurtured by encouraging toddlers to sit at the table, kids off the television, and interact with others. Kids can learn acceptable dining behavior, such as eating broccoli before brownies and not tossing salad across the table. "Parents are not willing to deal with picky toddlers' eating; they are not willing to deal with the problem, sit down with their children, and turn off the TV. Kids are not eating vegetables, and parents aren't willing to deal with it," says Vieira.

"The public is concerned about picky eating, and it's true—children are picky eaters. But it's not to say we can't influence them by getting into the habit of offering fruits and vegetables at each meal. Research shows if they experience it, they will eat it," says Behan. Parents should offer children a variety of foods and repeatedly expose them to healthy foods at mealtime and snack time. Toddlers will likely accept new foods after repeated exposure (at least 10 times).

Parents who are patient and foster independence at the dining table may be rewarded with children who like to eat. And parents who model healthy eating behavior by eating the same foods they’d like their toddlers to eat may find ultimate success. "Setting a good example early in life so that children can pick up on your positive cues about eating and regular physical activity is really important to their well-being in the long run," says Ward.

It's also crucial for parents to remember that toddlers often balance out their nutrient and calorie intake over several days, and physicians monitor for normal growth patterns. The key is for toddlers to eat balanced meals with a variety of healthy foods from at least three of the four food groups, with at least two of the four food groups for snacks.

"Toddlers need to learn to eat a variety of foods, starting very early. If parents give in, they wind up with a school-aged child [who] is very limited, and it's hard to eat out. Always have vegetables and fruits at the meal and just encourage one or two bites," says Vieira.1,4

Obesity in the Making

"One of the biggest nutritional concerns for American toddlers is the high rate of obesity in the 2- to 5-year-old group. It is increasing at a rapid pace. In decades in the past, you wouldn't see that. Obesity is reaching down into the toddler years. This is a relatively new trend," reports Ward.
It’s not a secret that the number of overweight children has risen dramatically since the 1970s, becoming a key talking point for many health organizations. But some may find it surprising that even toddlers are included in these alarming statistics. Among children aged 2 to 5, approximately 20% are overweight or at risk of being overweight. Obesity in toddlers has not yet been proven as a direct risk factor of obesity and its related conditions later in life, but overweight toddlers may indeed grow into overweight school-aged children who share the inherent risks of developing obesity-related issues.

The pediatric obesity trend coincides with a shift in food culture, including a decline in the consumption of milk, vegetables, grains, and eggs, along with an increase in the consumption of fruit juices, sweetened beverages, poultry, and cheese. While the percentage of total fat and saturated fat calories actually decreased, the total fat intake remained constant because of a sheer increase in calories. Some studies demonstrate a “substitution effect” of exchanging milk for sweetened beverages, which can contribute to excessive weight, poor intake, and dental caries. Parents should be encouraged to meet the recommendations for two or three servings of milk each day and offer plain water when their child is thirsty. Juice should be limited to 4 to 6 ounces daily of 100% fruit juice with no added sugars, with more emphasis on whole fruits and vegetables.

“If it’s never too early to start promoting healthy weight with children. To start, parents should examine their own relationship with food because it may influence how much they try to feed an infant or how much they think their toddler should eat, for example,” says Ward.

The AAP recommends that physicians monitor growth patterns and body mass index and make recommendations for healthy eating and physical activity. It is important to balance the fear of obesity and the concern about potential undernutrition for toddlers. Obesity prevention in children is a challenge, as parents must focus on providing a healthy diet without excessive parental restriction, concern, or control.

Nutritional Concerns at Large

Along with the rigors of balancing nutrient intake for toddlers comes a whole batch of new age nutritional issues that are causing today’s parents gray hairs. One is the confusion about appropriate foods for the toddler-aged group. “Parents sometimes take an adult health message and apply it to toddlers,” says Behan, who offers low-fat and low-calorie foods and sports drinks as an example of foods often inappropriately offered to toddlers.

Parents are also being sold on a growing number of health claims found on food labels, as they are increasingly on the lookout for better ways to nourish their children. “It’s difficult to figure out the good from bad food with food labels not being nutritionally clear. I tell people to be suspicious and to look for real food that doesn’t need to make nutrition claims to sell it,” says Behan. It doesn’t help that people are on information overload when it comes to nutrition and parenting.

“Parents are overwhelmed with information from the Internet. They don’t know what to believe anymore,” says Behan, who reports that gluten-free foods and high fructose corn syrup are on parents’ radar these days.

And, of course, who can forget one of today’s biggest stumbling blocks when it comes to young children’s diets: food allergies. An estimated one out of 25 children has food allergies. Most childhood food allergies can be traced back to five common foods: milk, eggs, peanuts, wheat, and soy. Shellfish, citrus fruits, and strawberries are also common causes of food allergy. A food allergy can further complicate delivering a balanced nutritious diet to young children. “Food allergies in toddlers is huge; it’s overwhelming. It’s not always an immune response to food, but it can be a vague intolerance,” says Vieira.

Help Is on the Way

It seems that dietitians are in the perfect position to pick up the mantle and help lead America’s young children to better nutrition, if only they have a chance. “Dietitians don’t get involved with this age group,” says Behan, who would like to see dietitians working with parents at the pediatrician’s level. “As a practicing dietitian, we see 6-year-olds, but we don’t see toddlers. We need to see them much sooner as the family forms food habits and traditions.”

FITS data suggest there are plenty of ways for healthcare professionals to intervene and improve the nutritional status of young children. Key points in nutrition education for expectant or new parents include the following:

- Encourage women to consume a variety of foods during pregnancy, including fruits, vegetables, and whole grains, not only to provide adequate nutrients for fetal development but also to maximize fetal exposure to flavors of a variety of nutritious foods and beverages.
- Promote breast-feeding to foster early infancy exposure to a variety of food flavors.
- Teach parents and caregivers of young children how to recognize the developmental milestones that signal the appropriate time to introduce complementary foods into the diets of infants and the appropriate order of complementary food introduction.
- Emphasize the importance of repeated exposures to novel foods and the need for diversity in the diets of infants and toddlers.
- Encourage caregivers to purchase and serve lower-fat and lower-sugar food selections to promote preferences for more nutrient-dense foods and beverages.

The Start Healthy Stay Healthy Feeding Guidelines (www.eatright.org/ada/files/toddler.pdf) sponsored by the ADA and Gerber Products Company offer parents and caregivers practical information about feeding infants and toddlers that goes beyond expert statements from authoritative bodies. And many dietitians have taken matters into their own hands by publishing children’s nutrition books offering practical tips for making the most of nutrition during the toddler years.

With today’s landscape of numerous food choices and nutrition-related diseases, it seems that dietitians will have their work cut out for them in helping to cultivate healthy toddler eating patterns.

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Toddler Nutrition Sources

American Academy of Family Physicians: www.aafp.org

American Academy of Pediatrics: www.aap.org

American Medical Association: www.ama-assn.org

Mayo Foundation: www.mayoclinic.org
The chronic diseases of our era—from heart disease and diabetes to cancer and obesity—have their roots in nutrition. But don’t forget that nutrition has its roots in the soil. Healthy soil grows healthy food, and healthy food makes for healthy people. It’s a sweet, simple chain of events that carries consequences and yet is often overlooked. You wouldn’t be doing your job as a dietitian if you didn’t grasp the connection between chronic disease and diet. Today’s nutrition advice should be all about healthy fats. “I think the fat phobia of the ’90s is old school now. Dietitians need to keep up with the research. We should not really be recommending low fat anymore. There is tremendous value in olive oil. Dietitians need to know this concept and to recommend that their patients consume good fats. People can have an enjoyable diet with food that tastes great. If keeping up with research on fat is challenging for nutrition professionals, you can imagine how confusing it is for the public. First it was low fat, then zero trans fat, and now it’s a push toward monounsaturated fatty acids (MUFAs),” says Brill. The No. 1 oil for home use should be olive oil; it can be used in salad dressings and cooking. Because different varieties of raisins are available, you may be left wondering which are the healthiest for you. Types of Raisins. Several different varieties of raisins exist. The majority of natural seedless raisins, which are dark brown in color, are made from green Thompson seedless grapes, while others are made from drying purple-colored seedless grapes, notes Sunmaid.com. Zante currants are very small, dark brown, seedless raisins made from black Corinth grapes that have a tart flavor and are often used in baking.