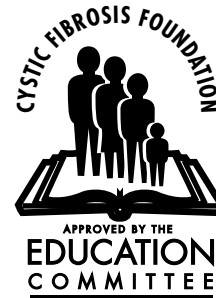


Nutrition



For Your Toddler With Cystic Fibrosis (One To Three Years)

A toddler with cystic fibrosis (CF) needs to eat nutritious meals and snacks just like any other toddler. The toddler with CF also needs enzymes, special vitamins, and extra calories to gain weight, grow, and be healthy.

How Does CF Affect Nutrition?

CF is a chronic, inherited disease that affects mainly the lungs and digestion. The basic problem in CF is an error in the salt and water exchange in some cells. This causes the body to make thick, sticky mucus, which clogs the lungs and leads to infections. The body needs more calories to fight infection. This mucus can also keep pancreatic enzymes from reaching the intestines to digest and absorb food. Without enzymes, maldigestion and malabsorption of food can occur. This causes greasy, large bowel movements and slow growth and poor weight gain.

What Is Unique About A Toddler?

A toddler is active, curious, and wants to be in charge. Toddlers are learning to be independent but need security, too. Toddlers with CF look and act like other toddlers.

Although you fed your infant, your toddler does not want help. Toddlers also tend to limit the variety they will eat, rather than try new foods. It can take time and many tries for a toddler to “warm up” to a new food. Often, a toddler needs to see a new food in a meal many times before trying it. Toddlers watch other people eat and try new foods, so be a good role model and try new foods yourself.

Mealtime is shorter for a toddler than for an older child or adult. Most



calories are eaten in the first 10–15 minutes. Your busy toddler can focus on eating for this short period but not much longer.

Toddlers should be watched when they eat. Avoid foods that may cause choking. These include chunks of meat like hot dogs; raw fruits and vegetables like apples, grapes, carrots and raisins; candy, like jellybeans, gumdrops, and hard candy; and popcorn.

Your Toddler's Nutrition Needs

Calories: Most toddlers need 1,000–1,300 calories daily. However, a toddler with CF may need 30–50% more calories, or 1,300–1,900 calories daily. It is important to remember that a balanced diet is vital for the whole family. This includes dairy products, grains and starches, fruits and vegetables, and protein like meat, poultry, fish, and eggs. Since toddlers with CF will eat the same amount as other toddlers, more calories should be added to their diet. Give the toddler with CF whole milk to drink at every meal. Serving whole milk dairy

products (like cottage cheese, yogurt, and pudding), and adding cream on cereal, margarine or butter in everything, and extra cheese in casseroles or on pizza, put more calories in the meal for the child with CF.

Toddlers with CF lose more salt when they sweat than toddlers who don't have CF. Add salt to your child's food and plan salty snacks, like pretzels to help replace this salt loss.

Tube Feedings: Besides high-calorie meals, snacks, and store-bought nutrition supplements, some children need tube feedings to gain weight and grow.

Meals At Daycare

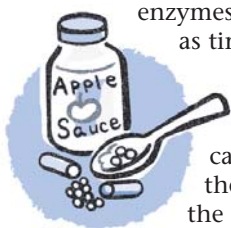
If your child is in daycare, plan high-calorie meals and snacks with the daycare center staff. Tell them why your child needs extra calories. You may have to send extra high-calorie foods, if the daycare menu can't be changed. Daycare center staff should give enzymes before meals and snacks and report changes in bowel movements.

Helping Your Toddler Take Enzymes And Vitamins

Your CF dietitian or care provider can tell you what kind of, and how many, enzymes your child needs. Enzyme dose is based on weight, amount eaten, bowel movements, weight gain, and growth. Too few enzymes may cause more greasy, large bowel movements and slow weight gain, despite many calories. Too many enzymes may cause stomach pain and bowel obstruction. It is vital to work with your CF dietitian or care provider to match the enzyme dose to your child's needs. Do not change the dose without talking to your CF dietitian or care provider.

Nutrition • For Your Toddler With Cystic Fibrosis

Toddlers don't always want new foods or medicines, including enzymes. Enzymes come as tiny "beads" in a capsule. Since toddlers can't swallow capsules, open up the capsule and mix the beads in a small amount of acidic food, like baby fruit or applesauce, and give by spoon before meals and snacks. Toddlers who don't want food and medicine mixed can swallow the plain beads, using a spoon or small medicine cup, before meals and snacks.



Enzymes should not be chewed or crushed. Do not put beads in food ahead of time for use later that day.

If toddlers refuse enzymes, try giving them some choices and control. Let them open up the capsules and pour the beads out. Let them choose the food and mix it with the beads. Some children refuse to eat if enzymes are required. Have one or two meals with no enzymes and try again. Talk to your CF dietitian or care provider if your child refuses to take their enzymes.

When fat is not absorbed, fat-soluble vitamins are not absorbed. Your toddler may need a prescription for special multivitamins that have more easily absorbed forms of vitamins A, D, E, and K. Some children refuse the liquid multivitamin, but will take it in a small amount of juice or food. For older children, there are chewable multivitamins.

High-Calorie Finger Foods:

- Noodles with Alfredo sauce (with butter, cream, and cheese)
- Grated whole milk cheese (like cheddar, Monterey jack, American)
- Crackers with cheese or peanut butter
- Blueberry muffins
- Pancakes or waffles
- Sliced avocado
- Soft-cooked vegetables with butter and cheese
- Scrambled eggs with cream and cheese
- Tuna or egg salad sandwich with mayonnaise
- Breaded fish or fish sticks



High-Calorie Spoon-Thick Foods:

- Applesauce mixed with cream
- Ice cream
- Cooked cereal with cream, butter, and brown sugar
- Whole milk cottage cheese or yogurt
- Pudding made with whole milk and cream
- Mashed potatoes with butter, gravy, and sour cream
- Thick cream soups (like cream of potato, cheese, and broccoli)
- Mashed avocado
- Refried beans

©2002 Cystic Fibrosis Foundation

If you have questions about "Nutrition For Your Toddler With Cystic Fibrosis," or any aspect of CF care, call your CF dietitian or care provider.

DIETITIAN NAME _____

PHONE NUMBER _____

CARE PROVIDER NAME _____

PHONE NUMBER _____

Contributing Authors:

Susan Casey, B.S., R.D.
Pediatric Clinical Dietitian
Children's Hospital &
Regional Medical Center
Seattle, WA

Judy Fulton, R.D.
CF Nutritionist/Dietitian
Children's Hospital of Pittsburgh
Pittsburgh, PA

Elisabeth Luder, Ph.D., R.D.
Associate Professor
Mt. Sinai School of Medicine
New York, NY

Karen Maguiness, M.S., R.D., C.S.P.
Dietitian, Pediatric Pulmonary
Riley Hospital for Children
Indianapolis, IN

Annie McKenna, M.S., R.D., C.N.S.D.
Nutritionist
Children's Healthcare of Atlanta
Atlanta, GA

Leslie Hazle, M.S., R.N., C.P.N.
Director of Patient Resources
Cystic Fibrosis Foundation
Bethesda, MD

This fact sheet has been favorably reviewed by the Pediatric Nutrition Practice Group of the American Dietetic Association.