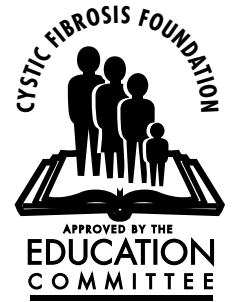


Nutrition



For Your Child With Cystic Fibrosis (Four to Seven years)

Your child is no longer a toddler and is learning and growing in many areas, like eating. Four- to seven-year-olds are better at chewing, swallowing, using utensils, and sticking with the task of eating. Children this age with cystic fibrosis (CF) develop and act like children without CF, but they have higher nutrition needs. They need more calories, enzymes to digest and absorb food, vitamins, and salt.

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 weight gain.

What Is Unique About Four- To Seven-Year-Olds?

Four- to seven-year-olds learn by watching their family, parents, teachers, and friends. They like to be independent, but need limits and structure. This applies to nutrition, too. Have planned meals and snacks. If your child eats all day, they will not be hungry at mealtime. Give the child some control over what they eat. Don't force-feed or pressure them to eat new foods. Lead by example and try new foods yourself. Have clear rules for how your child can act at mealtime.



What Do Four- To Seven-Year-Olds Need?

Calories: If a child has CF, they may need 2,000–2,800 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 proteins like meat, poultry, fish, eggs, and peanut butter. Since four- to seven-year-olds with CF will eat the same amount as other children their age, more calories should be added. Give **whole milk** at every meal. Whole milk dairy products (like cottage cheese, yogurt, and pudding), 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.

Vitamin supplements: are crucial because of the malabsorption of vitamins in CF. Vitamin supplements help meet your child's nutrition needs and prevent vitamin shortages, especially of the fat-soluble vitamins A, D, E and K. Your CF dietitian or care provider will help you find the

right type and dose of vitamin supplements for your child.

Enzymes: Your CF dietitian or care provider also will help decide what kind of, and how many, enzymes your child needs. Enzyme dose is based on weight, amount eaten, bowel movements, growth, and weight gain. Do not change the enzyme dose without talking to your CF dietitian or care provider.

Salt: Children with CF lose more salt when they sweat than children who don't have CF. Adding salt to your child's food and planning salty snacks, like pretzels, will help replace this salt. Fluids are also vital during exercise.



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

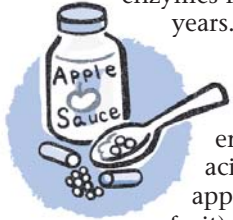
Watch Closely: Children should be watched when they eat. Avoid foods that may cause choking. These include chunks of meat; nuts; raw fruits and vegetables like apples, grapes and carrots; candy, like jelly-beans, gumdrops, and hard candy; popcorn; hotdogs; and raisins.

Meals Away From Home

Your child may eat some meals in other homes, at daycare, or at school. Teach people how and when to give enzymes and plan high-calorie meals and snacks. Your child should take enzymes before all meals and snacks. Send enzymes to daycare or school with the proper paperwork. Your CF dietitian or care provider can help with the paperwork.

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Most children this age still need the enzyme capsules opened up and the beads mixed with food. They will still need supervision and help with enzymes for a few more years. You can help



with meals away from home by sending the enzymes and the acidic food (like applesauce or other fruit) to mix them with.

Enzymes should not be mixed in food ahead of time.

Your CF dietitian or care provider also can help you work with the daycare or school to make it easier for your child to use the restroom, when needed, without embarrassment or delay.

How Do You Meet Your Child's Calorie Needs?

Families should plan just one "menu" for the whole family at each meal, not many "short-order" meals to meet the needs of a child with CF. Your CF dietitian will help you change your family's current meals to put extra calories on the plate of the child with CF. There also are store-bought products to help with weight gain. Some children add these products to snacks or mealtime.

Foods To Add Calories:

- **Whole milk, cheese, butter, margarine or oil**
Add to soups, hot cereal, grits, rice, potatoes, pastas or vegetables.



- **Peanut butter spread on sandwiches, crackers.**
Use as a dip for fruit.
Use on ice cream, or in milkshakes.

- **Ice cream or whole milk yogurt**
Use to make shakes or smoothies.

- **Salad dressing or mayonnaise (not "lite")**
Spread on sandwiches or crackers.
Mix with meats, poultry, eggs and fish.

- **Cream or half and half**
Use in soups, casseroles, batters, and puddings.
Put on cereals.
Use whipped as a topping on hot chocolate, pudding, and gelatin.

- **Cream cheese**
Spread on breads, muffins, and crackers.
Use to make dips.



- **Sour cream**
Add to potatoes, macaroni and cheese, cream soups, and casseroles.
- **Powdered milk**
Add to regular milk and milk drinks.
Use in casseroles, meatloaf, puddings, and custards.

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

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