**Healthy Nutrition for Cystic Fibrosis**

**Why is There so Much Focus on Good Nutrition in CF?**

Good nutrition is crucial for individuals with CF because of the link between healthy body weights and good lung function.

**Do People With CF Have to Follow a Special Diet?**

A well balanced, high calorie diet with adequate salt, fat and extra vitamins gives the body what it needs to function at its best with CF. This is not a special diet, but a healthy normal diet with a few extras!

**Why are Enzymes Sometimes Required?**

The majority of people with CF will need to take pancreatic enzymes. When the liquid in the channels that carry enzymes from the pancreas become too sticky, as in CF, the pancreatic enzymes cannot reach the intestines to digest and absorb food. This may cause pain, gas, bloating, frequent large greasy bowel movements which may lead to poor growth and poor weight gain and/or weight loss. To improve nutrient absorption people with CF will need to take pancreatic enzymes at the start or at the start and middle of meals and snacks. Enzymes usually work for about thirty minutes. If meals take longer than this, extra enzymes may have to be taken. The amount of enzymes that are needed will be assessed by the CF team.

**What is a Healthy Diet?**

A healthy diet is made up of balanced meals and snacks that include a variety of foods from the four food groups. It is the key to good nutrition and improved health in CF. Grains provide carbohydrates, energy and fibre. Fruits and vegetables are invaluable sources of vitamins, minerals, antioxidants and fibre. Dairy products are an excellent source of calcium, vitamin D and other bone building minerals. Meats and alternates are a great source of protein and fat and can be rich in iron.

**Why are More Calories Needed?**

The body uses up more energy due to:
- Malabsorption – even when pancreatic enzymes are prescribed, the body will lose some dietary fat each day;
- Coughing & breathing a bit harder than others;
- Fighting infections in the lungs

For all ages, high calorie foods are needed to meet these higher needs. Individuals with CF may require 10-30% or more calories than a person without CF of the same sex and age.

**How Can These Extra Calories be Added to the Diet?**

It can be difficult for someone to eat the extra calories needed every day to reach
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and maintain a healthy body weight. An increased intake of fat is often necessary to meet the high calorie needs. Including regular snacks (3 or more per day) is also a healthy choice as long as they don’t interfere with meals. The dietitian can help make changes to meet nutrition goals.

Some simple, healthy food suggestions include:
- Homogenized milk vs. 2% or skim;
- Table cream added to cereal, cream soups, and other recipes;
- Oil, butter or margarine added to foods;
- Sour cream added to potatoes & vegetables;
- Vegetables dipped in a mayonnaise or sour cream dip;
- Cheese added to soups, salads, vegetables, casseroles, etc;
- Avocado or olives added to salads or as an accompaniment;
- Nuts as snacks

Are There any Other Special Considerations for the Diet?

Vitamins
Fat-soluble vitamins are lost in the stools of people with CF when fat is malabsorbed. A fat-soluble vitamin supplement is required daily to replace these losses. Without them, vitamin deficiencies could develop. These deficiencies could affect the health of bones, eyes, as well as the body’s ability to fight infections. Taking the vitamins prescribed by the CF team is very important. A yearly blood test will help the CF team further adjust vitamin supplements if required.

Salt
Individuals with CF lose more salt when they sweat than persons without CF. This may be more of a problem in hot weather or with vigorous activity. Salt can be replaced by eating salty foods and liberally using the salt shaker. Sports drinks with added salt may need to be consumed during periods of increased activity. Occasionally salt supplements may need to be prescribed. For infants, a mineral mix solution may be given.

Calcium
Adequate calcium intake is important during all stages of life. CF related malabsorption means less less calcium may be absorbed. Milk and milk products are the best sources of calcium and vitamin D. For ideas on how to include them in the diet, ask the CF dietitian.

What are Some of the Reasons That Cause Poor Weight Gain?
Weight loss or poor weight gain may be a sign of other things going on. The following should be considered:

- Coughing more or having other lung symptoms lately.
- Lung infections cause the body to burn up more calories and may decrease appetite. These two things may affect nutritional health.
- More stomach pain, more gas, changes in my stooling (more frequent, more odorous, visible oil, etc).
- Malabsorption causes the body to lose essential calories, vitamins and minerals and to decrease weight.
- Feeling stressed, sad or unhappy lately.
- Emotions can affect appetite and cause weight loss
- Feeling full at the beginning of a meal – wanting to eat but being unable to.
- Some people with CF have slower move-
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How Can the Dietitian Help With Nutrition?

The dietitian is an important member of the CF care team. S(he) can:

- Explain specific nutritional health status & individual requirements;
- Identify any special challenges affecting nutritional health;
- Suggest ways to boost calorie & nutrient intakes;
- Set realistic goals to reach and maintain a healthy weight

Remember...

- There is a link between healthy body weight and good lung function
- High energy intakes are essential
- Fat-soluble vitamin supplementation is important
- Salt is essential

ment of food through their stomach and their intestinal tract. This results in eating less and feeling full.

These are only some examples of other issues that can affect nutritional health. In each case, good communication with the CF team is the key to improving the situation.