



What you need to know about...

Cystic Fibrosis

Cystic fibrosis is a disease that causes mucus to become thick and sticky, so that it builds up and blocks some of the organs in the body—especially the lungs and pancreas. In the lungs, the mucus builds up and can block airways and make breathing difficult. The mucus build up can cause bacteria to grow and lead to serious lung infections. In the pancreas, mucus can also build up and block digestive enzymes from getting to the small intestine. These digestive enzymes are important because they break down the food we eat which provide important nutrients for the body.

Approximately 30,000 children and adults in the United States have cystic fibrosis, and about 1,000 new people are diagnosed each year. Cystic fibrosis affects all people, but the disease is more common among Caucasians.

What causes cystic fibrosis?

Cystic fibrosis is a genetic disease, which means that it can be passed from parents to their children through their genes, specifically the CFTR gene. The CFTR gene makes a protein that controls the movement of salt and water in and out of the body's cells. When there is a problem in this gene, the body makes a protein that does not work right; it makes thick, sticky mucus and very salty sweat. To get cystic fibrosis, someone must get two copies (one from each parent) of the CFTR gene that does not work properly. A child can get a normal CFTR gene from one parent and a faulty CFTR gene from the other parent. In this case, someone is called a "CF carrier." Carriers do not have symptoms of cystic fibrosis, but they can pass the faulty gene on to their children. About 12 million Americans are carriers of a faulty CF gene. They may not know they are carriers.

What are the signs and symptoms of cystic fibrosis?

The signs and symptoms of cystic fibrosis vary from person to person. Sometimes there are no symptoms, but other times the symptoms are severe. Common signs and symptoms include:

- wheezing
- shortness of breath
- frequent lung infections, such as bronchitis or pneumonia
- frequent coughing
- poor growth, poor weight gain
- bulky, greasy stool or constipation
- very salty sweat
- growths in the nose called nasal polyps

How is cystic fibrosis diagnosed?

Newborn tests including genetic and blood tests are used to show if a baby has faulty CFTR genes and if the pancreas is working correctly. After a genetic test, a health care provider may perform sweat tests. In a sweat test, the health care provider will cause sweating on a small patch of skin and collect the sweat to see if it has high salt levels, which confirm cystic fibrosis. Prenatal tests are also available.

What is the treatment for cystic fibrosis?

Currently, CF has no cure, but treatment options have greatly improved. The goals of treatment are to prevent and control lung infections, loosen the thick, sticky mucus from the lungs, treat and prevent blockage in the intestines, provide nutrition and prevent dehydration. For people who have cystic fibrosis and have lung problems, the main treatments are chest physical therapy, exercise and medications.