Cystic Fibrosis

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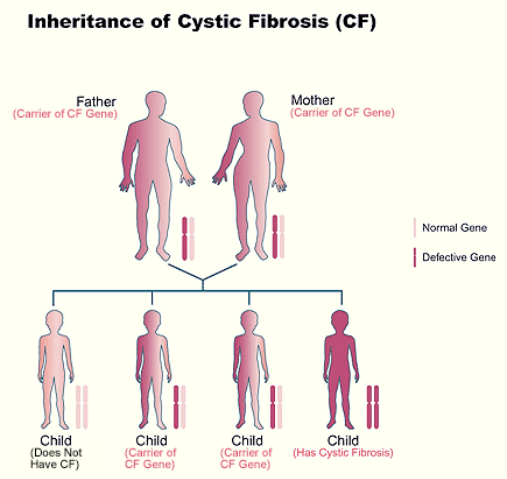
Cystic fibrosis (CF) is an inherited disease that affects the lungs and the digestive system. CF produces a thick, sticky mucus that clogs the lungs and obstructs the pancreas. Over 30,000 people in the United States and 70,000 people in the world have CF. This disease affects one out of three thousand babies born in the United States. The average age of a living person with CF is thirty-seven years old.

There are many symptoms of CF that are mostly caused by the thick, sticky mucus. One symptom is infertility that mostly happens in men. Salty tasting skin is another symptom of CF. People with CF constantly cough, most the time with phlegm. They have ongoing lung infections and shortness of breath and wheezing. They have difficult bowel movements and difficulty growing, even when they eat. These are only a few of the long list of symptoms that people with the CF disease have to live through every day.

As said above, cystic fibrosis is an inherited disease. It's inherited by two parents, mother and father, both having a carrier CF gene. The child has a one in four chance of having cystic fibrosis; a one in four chance of not having CF, and a two in four chance of having a carrier gene for CF. This is shown by the picture below. Most people don't know that they have the carrier gene of CF, because it usually has no symptoms.



Cystic fibrosis can be diagnosed in many different ways. When pregnant, they can either do a chorionic villus biopsy or an amniocentesis. A chorionic villus biopsy is a test that inserts a tube into the uterus and cuts a sample of the placenta to test it for the CF disease. An amniocentesis is a hollow needle that is inserted into the abdominal wall that takes out the amniotic fluid to test it for the CF disease. Some other tests that can be done when the baby is born is blood tests, sweat tests, lung function tests, sputum (phlegm) cultures, chest x-rays, and sinus x-rays. Blood tests are used to test if the person has the CF gene. Sweat tests are the most useful for testing CF. They test the salt in the sweat to see if the amount is abnormally large. Sputum (phlegm) cultures test if there are any bacteria in the phlegm. All of these tests and more are used to see if a person has cystic fibrosis.

In the world today, medical professionals have come up with new ways to help treat cystic fibrosis. Some of the treatments include lung transplants, preventing lung infections, loosening and getting rid of thick, sticky mucus, prevent blockages in the intestines, and to provide an adequate nutrition. One of the ways to loosen and get rid of thick, sticky mucus is by chest physical therapy. This is a compression of the chest to remove the mucus from the lungs so they can cough it up. Some other methods are used that are more comfortable, but these are the main treatments.

There is currently no cure for cystic fibrosis. Some possible cures could be to somehow change the cystic fibrosis gene so it's a normal one, permanent medication that completely suppresses the symptoms, or artificial lungs created from stem cells. Some of these could be possible in the future. Hopefully some day there will be a permanent cure for cystic fibrosis.

- http://www.cff.org/
- http://www.nhlbi.nih.gov/health/dci/Diseases/cf/cf_what.html