Journal of Cardiac and Pulmonary Rehabilitation

Kaleta, J Card Pulm Rehabil 2021,5:4

Commentary Open Access

Cystic Fibrosis: Diagnosis and Its Treatment

Jacob Kaleta *

Department of Pulmonary Rehabilitation, St. James College and Hospital, Anguilla, USA

***Corresponding author:** Jacob Kaleta, Department of Pulmonary Rehabilitation, St. James College and Hospital, Anguilla, USA, E-mail: jacob.k@gmail.com

Received date: September 8, 2021; **Accepted date:** September 22, 2021; **Published date:** September 29, 2021

Citation: Kaleta J (2021) Cystic Fibrosis: Diagnosis and Its Treatment. J Card Pulm Rehabil 5:148.

Description

Cystic fibrosis is a hereditary illness that causes thick, sticky mucus to build up in the lungs, causing damage to many of the body's organs. Progressive impairment to the respiratory system and persistent digestive system issues are two of the disorder's most prevalent indications and symptoms. The disorder's characteristics and severity differ from person to person.

Mucus is a slippery material that coats the linings of the lungs, digestive system, reproductive system, and other organs and tissues, lubricating and protecting them. The body generates excessively thick and sticky mucus in persons with cystic fibrosis. This abnormal mucus can block the airways, causing serious breathing difficulties as well as bacterial infections in the lungs. Coughing, wheezing, and inflammation are all symptoms of these illnesses. Mucus accumulation and infections cause persistent lung damage, including scar tissue (fibrosis) and cysts in the lungs, over time.

Diagnosis

Doctors usually do a physical exam, like analyzing the symptoms and conducting multiple tests to diagnose cystic fibrosis.

Newborn screening

Every state in the United States currently conducts regular Cystic Fibrosis (CF) screenings on newborns. Because of the early detection, therapy may begin right away.

A blood sample is examined for higher than usual amounts of Immuno-Reactive Trypsinogen (IRT), a substance produced by the pancreas, in one screening test. Because of early birth or traumatic delivery, a newborn's IRT levels may be elevated. As a result, further testing may be required to confirm a cystic fibrosis diagnosis.

Diagnosis of adults and older children

For older children and people who were not tested at birth, cystic fibrosis testing may be advised. If one has an irritated pancreas, nasal polyps, recurrent sinus or lung infections, bronchiectasis, or male infertility, the doctor may recommend genetic and sweat testing for CF.

Treatment

Although cystic fibrosis has no cure, therapy can help to alleviate symptoms, decrease complications, and enhance the quality of life. To decrease the course of CF, close monitoring and early, vigorous treatments are suggested, which can lead to a longer life.

Because cystic fibrosis management is complicated, one should seek treatment from a Centre that has a multispecialty team of doctors and medical experts who are trained in CF diagnosis and therapy.

The following are some of the therapy goals:

- Infections in the lungs can be prevented and controlled.
- Getting rid of and loosening mucus in the lungs
- Intestinal obstruction treatment and prevention
- Ensuring sufficient dietary intake

Medications include the following:

- Medications that target gene mutations, such as a new therapy that combines three medications to address the most prevalent genetic mutation that causes CF, which is seen as a big breakthrough in treatment.
- Antibiotics are used to treat and prevent infections in the lungs.
- Anti-inflammatory drugs can help reduce swelling in your lungs' airways.
- Mucus-thinning medications, such as hypertonic saline, can aid in coughing up mucus and enhance lung function.
- Bronchodilators are inhaled medicines that assist keep your airways open by relaxing the muscles around your bronchial passages.
- Oral pancreatic enzymes to aid nutrition absorption in the digestive tract
- To avoid constipation or bowel blockage, use stool softeners.
- Acid-reducing drugs can help pancreatic enzymes operate more efficiently.
- When diabetes or liver disease is present, certain medications are prescribed when necessary.
- Mucus is a slippery material that coats the linings of the lungs, digestive system, and other organs and tissues, lubricating and protecting them. The body generates excessively thick mucus in persons with cystic fibrosis. This abnormal mucus can block the airways, causing serious breathing difficulties.