

## Cystic Fibrosis Symptoms and Complications

Cystic fibrosis is a hereditary disease leading to problems with Cl<sup>-</sup> channels in the body. It is the most common lethal genetic disease in the Caucasian population. Patients develop recurrent pulmonary infections, bronchitis, infertility, pancreatic insufficiency, steatorrhea and malabsorption.



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### Recurrent Pulmonary Infections

#### [Recurrent-clock at Lungs with Bacteria](#)

A very serious complication of CF is pulmonary infection. Viscous mucus secretions lead to obstruction and infection, and sometimes abscesses. Staph aureus, H. influenza and Pseudomonas are the most common organisms causing disease in CF patients.

### Chronic Bronchitis

#### [Crone Broccoli-on-fire](#)

Bronchioles often become distended with thick mucus, with hyperplasia and hypertrophy of the mucus secreting cells. Along with superimposed infections, patients often develop chronic bouts of bronchitis.

### Nasal Polyps

#### [Nose Polyps](#)

The pathogenesis of nasal polyps is mostly unknown, but it is understood that in the nasal mucosa oedematous fluid collects, causing polypoidal change, sometimes leading to metaplastic changes in the epithelium. This is highly associated with CF, along with other pathologies.

### Pancreatic Insufficiency

#### [Damaged Pancreas](#)

Due to accumulation and plugging of mucus in the small ducts of the pancreatic exocrine glands, patients may experience pancreatic atrophy and fibrosis. This leads to pancreatic insufficiency and digestive problems.

### Intestinal Obstruction

#### [Intestines Obstructed](#)

A common finding in newborns with CF is intestinal obstruction. Meconium ileus is the stasis of newborn's meconium, which is not passed in the first 24-hours of life.

### Malabsorption and Diarrhea

#### [Intestinal-mallet and Toilet](#)

Due to pancreatic insufficiency, many patients experience malabsorption and diarrhea, and often steatorrhea.

### **Vitamin Deficiencies**

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With impaired pancreatic exocrine function, patients have impaired fat absorption, which leads to avitaminosis and possible deficiencies in fat-soluble vitamins (A, D, E, and K).

### **Chronic Hepatic Disease**

#### **Crone Liver**

As bile canaliculi are plugged with mucinous material, portal inflammation, and later, hepatic steatosis may occur. Many patients can develop biliary cirrhosis and diffuse hepatic nodularity.

### **Infertility in Males**

#### **Limp Male-sign**

95% of males who survive to adulthood with CF are infertile. This is often because of a congenital bilateral absence of the vas deferens.