Cystic fibrosis is a progressive, genetic disease that affects the lungs, pancreas, and other organs.

There are close to 40,000 children and adults living with cystic fibrosis in the United States (and an estimated 105,000 people have been diagnosed with CF across 94 countries), and CF can affect people of every racial and ethnic group.

In people with CF, mutations in the cystic fibrosis transmembrane conductance regulator (CFTR) gene cause the CFTR protein to become dysfunctional. When the protein is not working correctly, itâ€™s unable to help move chloride â€” a component of salt â€” to the cell surface. Without the chloride to attract water to the cell surface, the mucus in various organs becomes thick and sticky.

In the lungs, the mucus clogs the airways and traps germs, like bacteria, leading to infections, inflammation, respiratory failure, and other complications. For this reason, avoiding germs is a top concern for people with CF.

In the pancreas, the buildup of mucus prevents the release of digestive enzymes that help the body absorb food and key nutrients, resulting in malnutrition and poor growth. In the liver, the thick mucus can block the bile duct, causing liver disease. In men, CF can affect their ability to have children.

Learn how the cystic fibrosis transmembrane conductance regulator affects the digestive system.

Understand how the cystic fibrosis transmembrane conductance regulator (CFTR) affects the GI system.

Today, because of improved medical treatments and care, more than half of people with CF are age 18 or older. Many people with CF can expect to live healthy, fulfilling lives into their 30s, 40s, and beyond.

Read the Foundation's Patient Registry Reports.

Reference

LIGHT MEDICINE: A New Paradigm â€” The Science of Light, Spirit, and Longevity

Critical Thinking: Understanding and Evaluating Dental Research, Third Edition