

Genetic Disorder Prediction Report

Patient Age: 5

Gender: Female

Predicted Disorder: Genetic Disorder

Subclass: Cystic fibrosis

Date: 14-02-2026

Description:

Overview

Cystic fibrosis (CF) is a genetic disorder that affects the lungs and digestive system. It causes the body to produce thick, sticky mucus that can clog the lungs and digestive tract.

Causes

Cystic fibrosis is caused by a mutation in a gene called the CFTR gene. This gene helps control the movement of salt and water in and out of cells.

Symptoms

Symptoms of cystic fibrosis can vary from person to person, but common signs include:

- Frequent coughing or wheezing
- Shortness of breath or difficulty breathing
- Frequent lung infections, such as pneumonia
- Poor growth or weight gain despite a good appetite
- Difficulty digesting food, leading to greasy, bulky stools
- Salty-tasting skin (parents may notice this when they kiss their child)

Diagnosis

Cystic fibrosis is usually diagnosed through a combination of tests:

- **Newborn Screening**: Most babies are screened for CF shortly after birth using a blood test.
- **Sweat Test**: This test measures the amount of salt in sweat. People with CF have higher levels of salt in their sweat.
- **Genetic Testing**: A blood test can check for mutations in the CFTR gene.

Treatment

While there is no cure for cystic fibrosis, treatments can help manage symptoms and improve quality of life.

- **Medications**: To help thin mucus and make it easier to clear from the lungs, as well as antibiotics to treat infections.
- **Chest Physiotherapy**: Techniques to help clear mucus from the lungs.
- **Nutritional Support**: Special diets, supplements, and enzymes to help with digestion and absorption of nutrients.
- **Lung Transplant**: In severe cases, a lung transplant may be considered.

Follow-up Advice

If you or your child has cystic fibrosis, regular follow-up care is essential. This may include:

- Routine check-ups with a CF specialist to monitor lung function and overall health.
- Regular lung function tests to track breathing.
- Ongoing nutritional assessments to ensure proper growth and health.
- Staying up to date with vaccinations to prevent infections.