Cystic Fibrosis

&

Tuberculosis

Cystic Fibrosis

Cystic Fibrosis (CF)is a genetic disorder that is passed down through genes. It causes severe damage to the lungs, digestive system and other organs in the body.

It affects the way the body produces mucus; mucus is a substance in your body that helps with regulating our organs and internal systems. It also affects the sweat and digestive fluids, these secreted fluids are thin and slippery but if a person has CF the fluids become sticky and thick.

As time goes on these fluids start to build up which then continues to block the airways thus making it hard to breathe. As the secreted fluids thicken and start to build up it begins to trap germs and bacteria which then leads to infections. This can cause severe lung damage like cysts (fluid-filled sacs) and fibrosis (scar tissue).

How is cystic fibrosis caused ?
Cystic fibrosis is caused by a change or mutation in a gene called CFTR (cystic fibrosis trans-membrane conductance regulator).

Symptoms of cystic fibrosis include :
- Trouble with bowel movements or frequent greasy stools
- Wheezing or trouble breathing
- Multiple occurrences of lung infections
- Infertility, especially in men
- Trouble growing or gaining weight
- Skin that tastes too salty

Treatment for cystic fibrosis
There is no cure for cystic fibrosis but medications and help from treatment can ease the symptoms.

Can cystic fibrosis be prevented ?
Cystic fibrosis is unpreventable, it is the product of faulty genes. If a a copy of CF is inherited, you will not appear to have any symptoms but will unfortunately be a carrier of the disease. Which means that you could potentially pass it onto your children.

Cystic fibrosis diagnosis
Early diagnosis means early treatment and although it unfortunately does not get rid of the disease it does ease the symptoms and set the carrier up for a healthier life in the future.

Tests to detect whether or not you have cystic fibrosis
- Blood test

When tested specifically for cystic fibrosis, it will appear in the blood work due to their being high levels of it in the blood

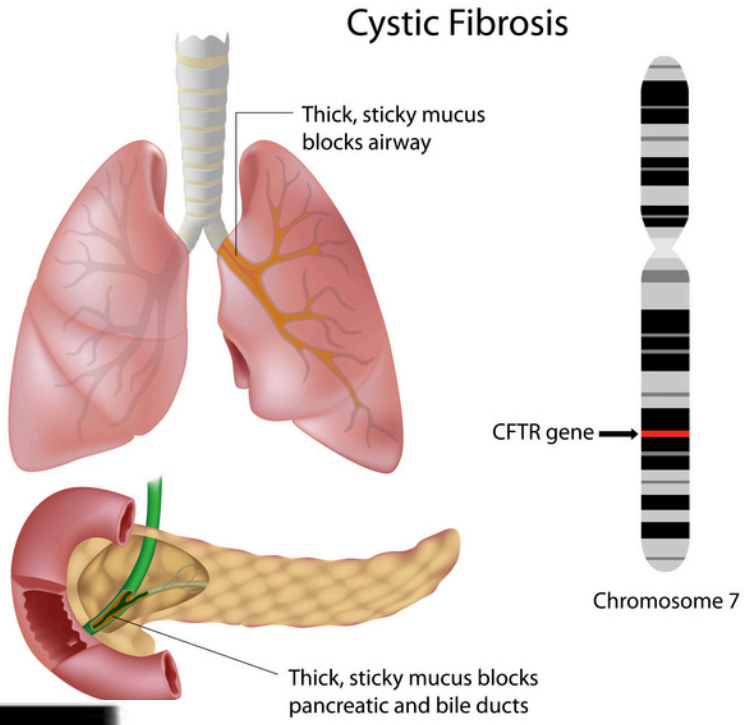
- DNA test

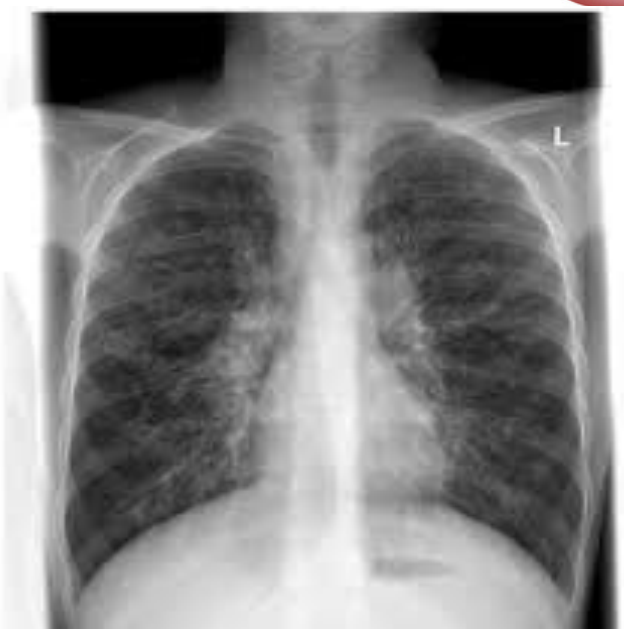
A DNA test looks for mutations that could be the potential CFTR gene

- Sweat test

This test measures the salt in your sweat and if higher than normal results suggest CF

Diagrams for cystic fibrosis





Tuberculosis

What is tuberculosis ?
Tuberculosis is a potentially serious infectious disease that mainly affects the lungs.

How is tuberculosis caused ?
The bacteria that causes tb is spread from one person to another through tiny droplets released into the air via coughs and sneezes. Tuberculosis is caused by the bacterium (germ) mycobacterium tuberculosis.

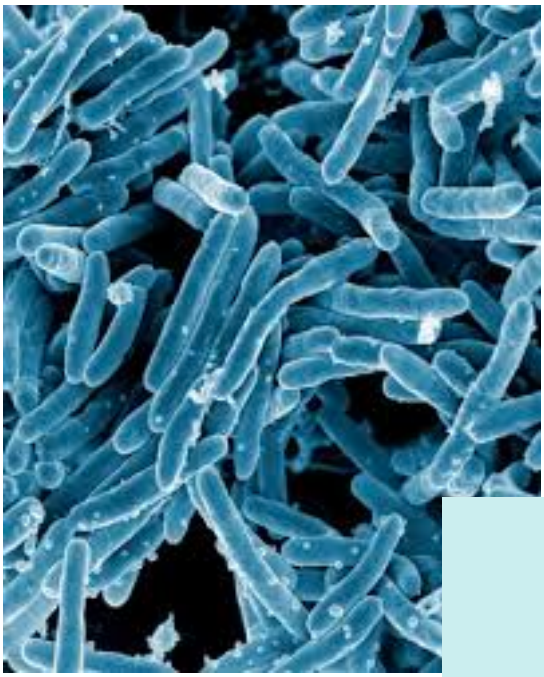
Symptoms of tuberculosis include :
- Tiredness and feeling unwell
- A bad ongoing cough
- Weight loss
- Fever and night sweats
- Coughing up blood
- Chest pains
- Swollen lymph glands

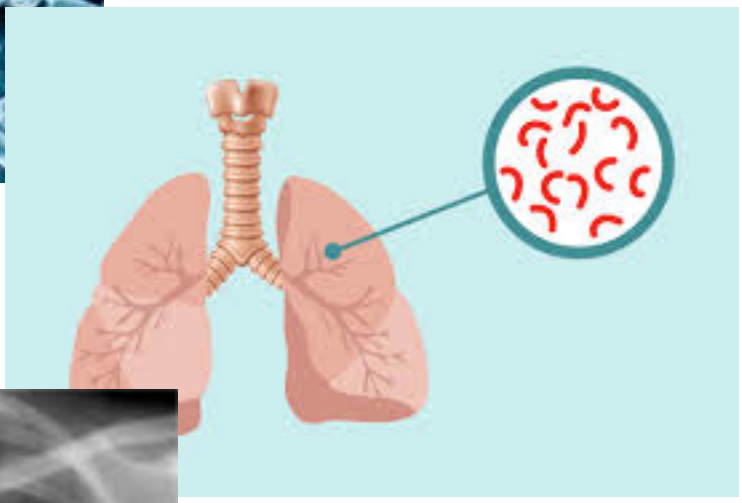
Treatment for tuberculosis
Tablets that are prescribed by a doctor can help reduce the chances of a person developing an active case of tuberculosis.
For an active case of tuberculosis prescribed antibiotics re to be taken for 6 months.
If full treatment in hospital is completed then tuberculosis can be cured.

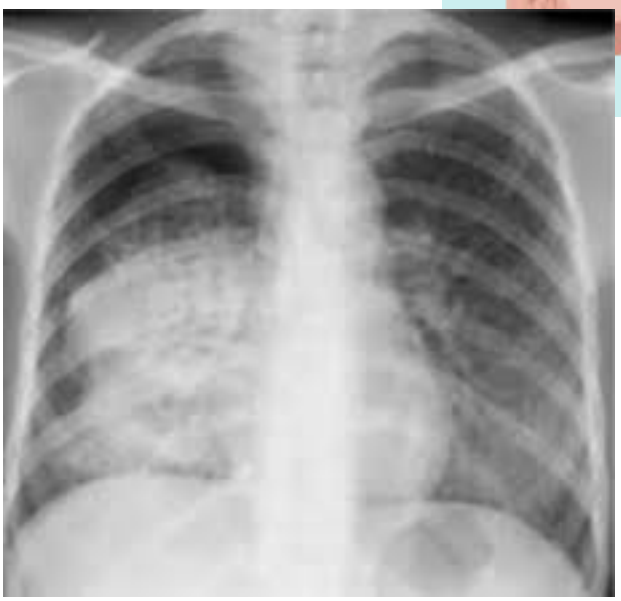
Tuberculosis diagnosis
If a person is suspected of having tuberculosis, then a doctor may order TB skin and blood tests, sputum tests and chest x-rays

Tuberculosis prevention
If you have a case of active tuberculosis it is advised that you keep your germs to yourself, it takes a few weeks of treatment before you are deemed not contagious.
Vaccinations
Finish the entire course of medication

Diagrams for tuberculosis







References

Cystic Fibrosis

- https://www.mayoclinic.org/diseases-conditions/cystic-fibrosis/symptoms-causes/syc-20353700#:~:text=Cystic%20fibrosis%20(CF)%20is%20an,are%20normally%20thin%20and%20slippery.

- https://www.webmd.com/children/what-is-cystic-fibrosis

Tuberculosis

- https://www.healthdirect.gov.au/tuberculosis#symptoms

- https://www.healthline.com/health/tuberculosis#treatment