



# MARINA MEDICAL HMO

HEALTH TIP



24 MARCH

WORLD  
TUBERCULOSIS  
DAY

# TUBERCULOSIS



# TUBERCULOSIS.....WHAT YOU NEED TO KNOW

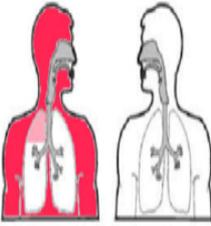
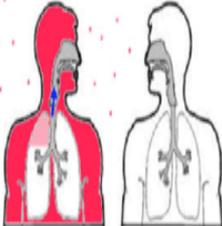
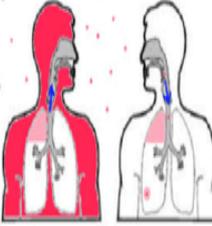
## WHAT IS TUBERCULOSIS

- It is an infectious disease caused by *mycobacterium tuberculosis* and characterized by the formation of hard nodules(tubercles) in the lungs.
- Tuberculosis may affect other part of the body e.g bones, kidneys, lymphnodes, abdomen etc.
- **LATENT TB:** Here, the bacteria remain in the body but they can be in an inactive state. They cause no symptoms and are not contagious.
- **ACTIVE TB:** The bacteria do cause symptoms and can be transmitted to others.

# DID YOU KNOW THAT...

- In 2019, an estimated 10 million people fell ill with tuberculosis (TB) worldwide. 5.6 million men, 3.2 million women and 1.2 million children. TB is present in all countries and age groups. (W.H.O)
- A total of 1.4 million people died from TB in 2019. Worldwide, TB is one of the top 10 causes of death and the leading cause from a single infectious agent (above HIV/AIDS).
- Tuberculosis is preventable and curable
- In 2019, 87% of new TB cases occurred in the 30 high TB burden countries. Eight countries accounted for two thirds of the new TB cases: India, Indonesia, China, Philippines, Pakistan, Nigeria, Bangladesh and South Africa.

# MODE OF TRANSMISSION

		
<p><b>Step 1: Contact</b></p>	<p><b>Step 2: Generation of Infectious Particles</b></p>	<p><b>Step 3: Infection and Disease Progression</b></p>
<p>A person with active TB and a susceptible person come into sufficiently close contact for airborne transmission of <i>M. tuberculosis</i> to occur.</p>	<p>The person with active TB aerosolizes particles of appropriate quality (size, etc.) containing bacilli of sufficient number and virulence to transmit infection.</p>	<p>The susceptible host has an immune background that facilitates initial infection, non-sterilization of the corresponding granuloma, and eventual progression to infectious disease.</p>
<p><i>Catalyst:</i> Increased contact rates</p>	<p><i>Catalyst:</i> Increased infectiousness</p>	<p><i>Catalyst:</i> Increased susceptibility</p>

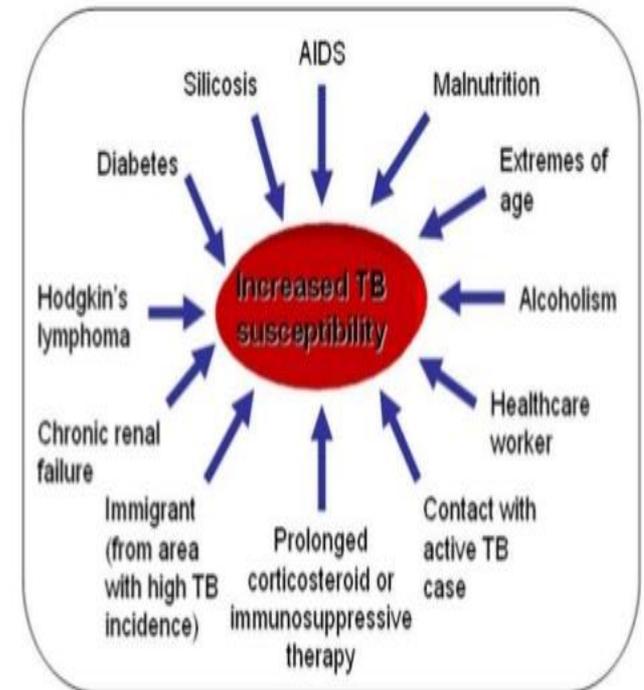
- Tuberculosis is transmitted via airborne respiratory droplets.
- When coughing , sneezing, talking, laughing or singing, an individual with active TB emits small droplets of saliva/phlegm containing tubercle bacilli. These are scattered and at a distance of up to 1.5m and are kept in of a suspension up to 30 minutes. These droplets are inhaled by susceptible individuals.

# MODE OF TRANSMISSION

- Because TB germs released into the air can linger for an extended period in locations with poor air conditioning or ventilation, there have been cases of the disease spreading even when the infected person is no longer present.

# WHO IS AT RISK ?

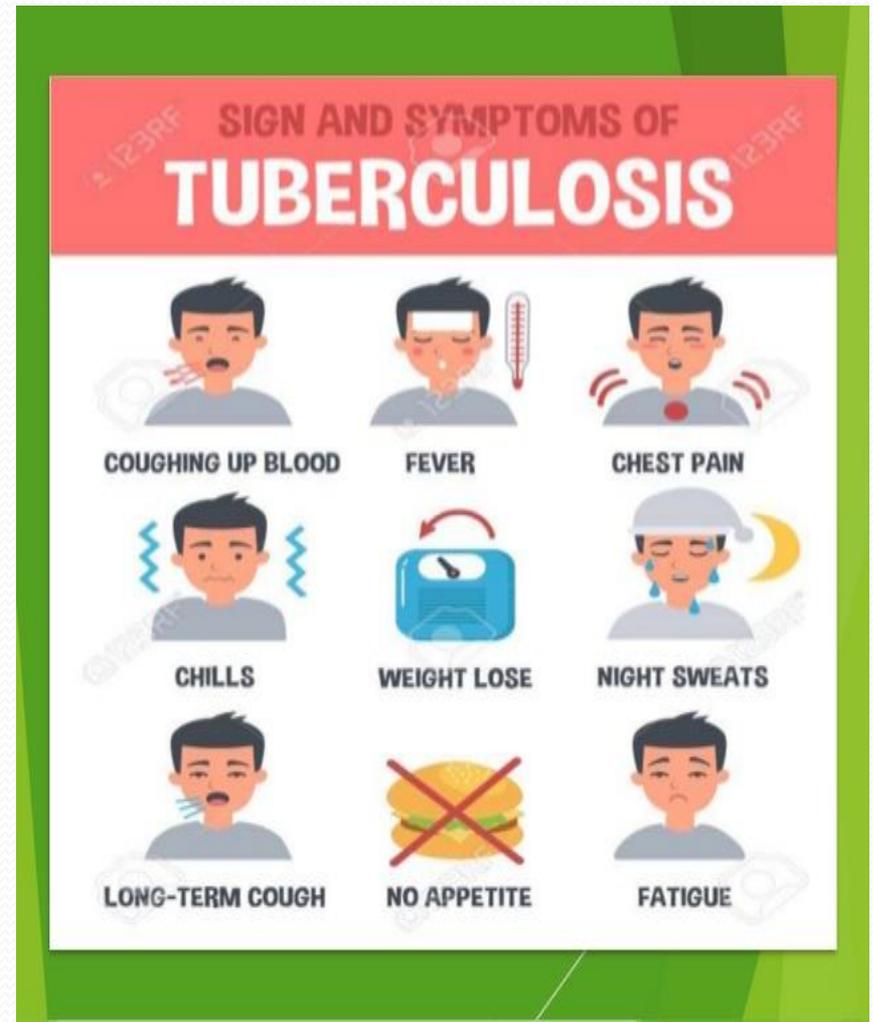
- Tuberculosis can affect all age groups but some people are more susceptible than others:



*Figure 1: Risk factors for pulmonary TB.*

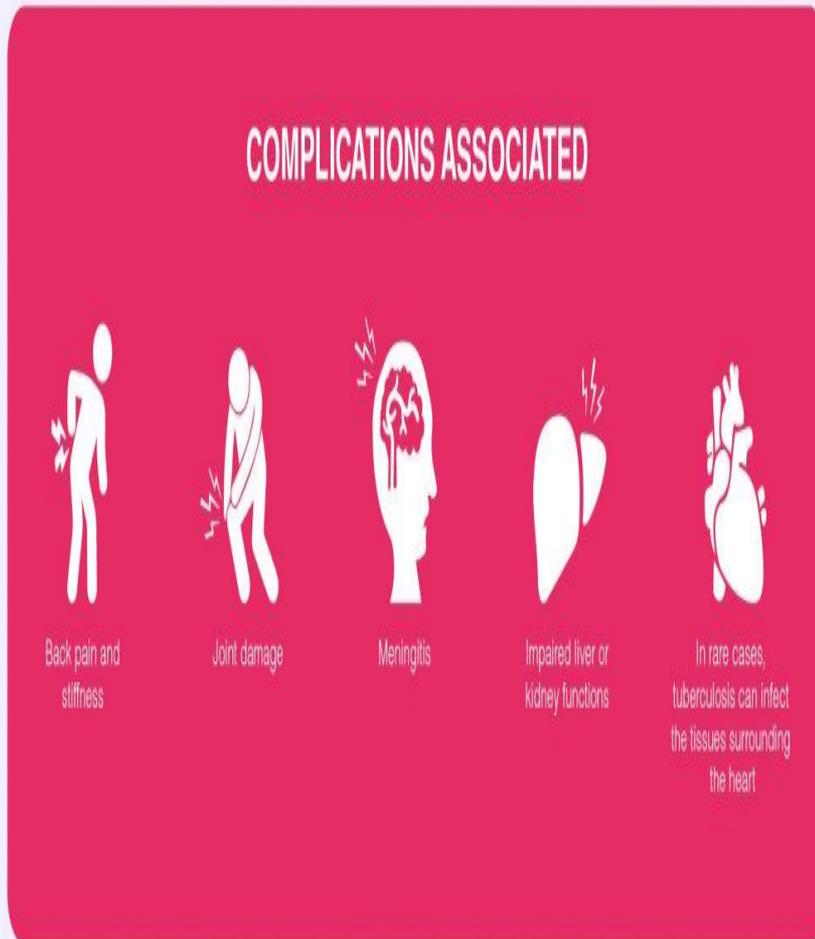
# SYMPTOMS OF TUBERCULOSIS

- Individuals with tuberculosis can present with any of these symptoms:
- Prolonged cough
- Weight loss
- Night sweats
- Fever
- Coughing up blood
- Chills
- Loss of appetite and malaise



# COMPLICATIONS

- Meningitis
- Kidney failure
- Liver failure
- Back pain and deformation
- Severe joint pain
- Heart failure



# DIAGNOSIS OF TUBERCULOSIS

- SKIN TEST

Mantoux test

- SPUTUM TEST

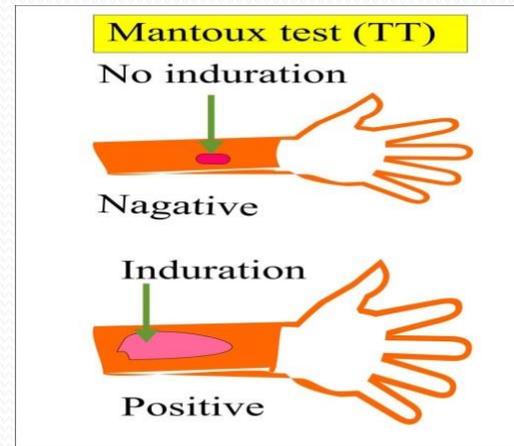
Sputum AFB

GeneXpert

- BLOOD TESTS

T.B Quantiferon Gold

- CHEST XRAY



## TREATMENT OF TUBERCULOSIS

- Medications are the cornerstone of tuberculosis treatment. But treating TB takes much longer than treating other types of bacterial infections.
- For active tuberculosis, you must take antibiotics for at least six to nine months. The exact drugs and length of treatment depend on your age, overall health, possible drug resistance and the infection's location in the body.



# PREVENTION OF TUBERCULOSIS

- Immunization with BCG at birth.
- Avoid close contact with someone who has been coughing for 2 weeks or more.
- Prompt diagnosis and treatment of patients already diagnosed with TB
- Wearing a mask, covering the mouth, and ventilating rooms can also limit the spread of bacteria.





THE CLOCK IS TICKING

# WORLD TB DAY 2021

2015

2021

2022

2030





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