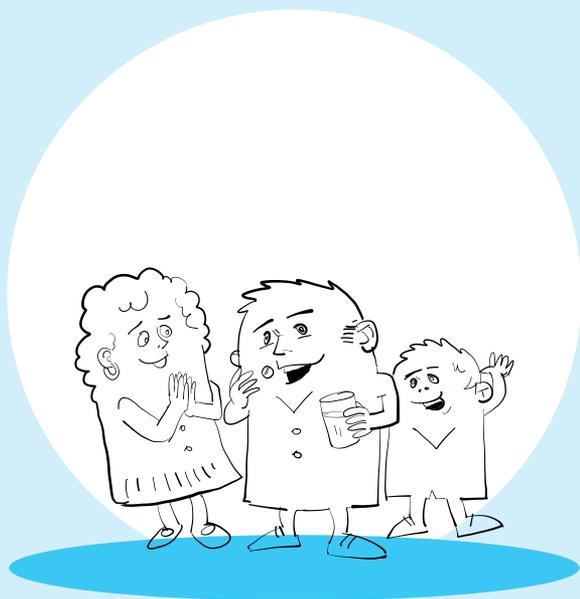


TUBERCULOSIS IN THE COMMUNITY



WHAT IS TUBERCULOSIS (TB)?

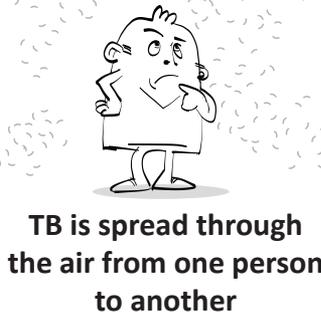
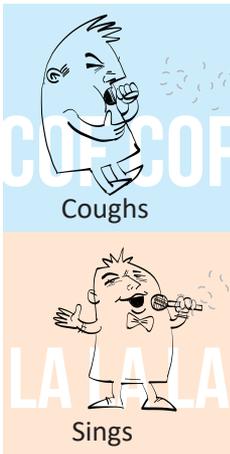
- TB is a disease caused by a bacteria called *Mycobacterium tuberculosis*
- The bacteria, or germ, that causes TB is spread through the air
- TB is a serious disease that, if untreated can cause a person to become very sick or even die
- TB most commonly affects the lungs but can be found anywhere in the body including:

- ~ Lungs
- ~ Bones
- ~ Spine
- ~ Brain
- ~ Intestines
- ~ Liver
- ~ Kidneys



HOW IS TB SPREAD?

- The TB bacteria travel through the air when someone who is sick with TB disease in the lungs:



- If you breathe this bacteria in, you can get TB

HOW IS TB **NOT** SPREAD?

- You cannot get TB germs from:



Sharing drinking/eating containers



Saliva from kissing



Smoking or sharing cigarettes



Sharing towels and clothes



Casual contact



Sharing or handling food



Touching or sharing bed linens



Shaking someone's hand



Sharing toothbrushes



Toilet seats

- Remember, since TB is spread through the air, if you are in close contact with someone with TB disease in the lungs, you **can** breathe in the TB bacteria

~ Close contact means someone you spend a lot of time with, like family members, classmates, co-workers, etc.

TB INFECTION VS. TB DISEASE

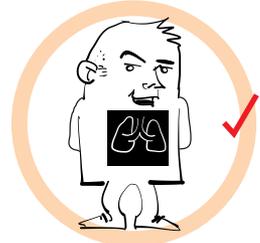
- There are two kinds of TB, TB infection and TB disease
- If you have **TB infection**:
 - ~ You have TB bacteria in your body but they are contained by your immune system
 - The bacteria are alive but are not active
 - Without treatment to kill the bacteria, they can get out and make you sick with TB disease



You do not feel sick and **CANNOT** spread TB to others



You usually have a positive skin or blood test

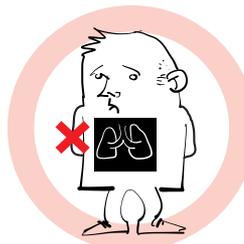


You have a normal chest X-ray

- If you have **TB disease**:
 - ~ Your body's immune system cannot contain the TB bacteria and they get out and multiply, causing you to become sick
 - ~ TB disease is a serious illness that could kill you if untreated, but it can be cured with the right medicine
 - ~ You are usually sick and **CAN** spread the disease to others
 - It is important to cover your mouth with a tissue when you cough or sneeze to help stop the spread of TB
 - You may also be asked to wear a mask



Usually have a positive skin and/or blood test



May have an abnormal chest X-ray

WHAT ARE THE SIGNS AND SYMPTOMS OF TB DISEASE?



Prolonged cough



Coughing up blood



Chest pain



Night sweats



Weakness/Feeling very tired



Weight loss



Fever/Chills



Loss of appetite

TELL YOUR DOCTOR IF YOU HAVE SIGNS OR SYMPTOMS OF TB DISEASE

WHO IS AT RISK FOR TB?

- Anyone can get TB infection or disease, but some people are at higher risk
- Some people are at higher risk for **EXPOSURE** to TB. They are more likely to have inhaled the bacteria and to have TB bacteria in their body. This includes:
 - ~ Someone who has been in close contact with a person with TB disease (like family members, classmates, co-workers, etc.)
 - ~ People who come from or travel to areas where TB is common such as Asia, Africa, Russia, Eastern Europe, and Central/South America
 - ~ Those who spend time in settings where people are close together, such as residents and employees of:
 - Nursing homes and hospitals
 - Prisons and jails
 - Homeless shelters
 - ~ Persons with substance/alcohol use disorders
- Other people are more likely to **DEVELOP** TB disease **IF** they have TB bacteria in their body. This includes:



Children exposed to adults or adolescents with TB disease*



People without insurance, access to medical care or housing, or people with low incomes



People with certain other medical conditions



Transplant recipients



Persons living with HIV

**children can get very sick with TB disease very quickly, so children who are close contacts to someone with TB should be tested right away*

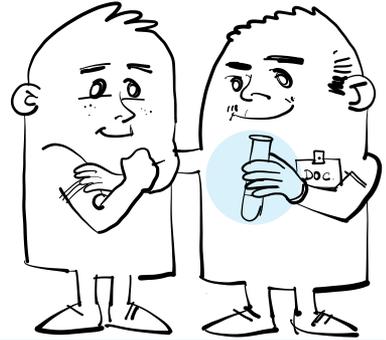
HOW ARE YOU TESTED FOR TB?



Skin Test

(also known as a TST)

- ~ Given on the arm
- ~ You have to return to the clinic within 48-72 hours
- ~ A healthcare worker will measure the bump



Blood Test

(also known as an IGRA)

- ~ Blood is taken
- ~ Sent to the laboratory
- ~ Results are usually ready within 48-72 hours

- You will not know if you have TB unless you have been tested
- You may be tested with a skin test (also known as a TST) or blood test (also known as an IGRA)
- Skin Test:
 - ~ A healthcare worker will administer an injection on your inner forearm
 - ~ You have to return to the clinic to have the test read by a healthcare worker within 48-72 hours
 - ~ The healthcare worker will look at your arm and measure any bump that appears
- Blood test:
 - ~ Blood is taken
 - ~ Sent to the laboratory
 - ~ Results are usually ready within 48-72 hours
- Some people who are born in other countries may have had the BCG vaccine for TB; this vaccine is not given in the U.S.
 - ~ BCG vaccine is given to children to prevent them from getting very sick with TB disease
 - ~ The vaccine **does not** provide lifelong immunity against TB
 - ~ The TB blood test is **NOT** affected by the BCG vaccine
 - ~ The skin test can be affected by the BCG vaccine, but the effect fades over time. A positive skin test is more likely due to TB infection

WHAT IF YOUR SKIN OR BLOOD TEST IS POSITIVE?

- Someone from the health department will complete a medical exam, ask you about signs and symptoms of TB, and send you for a chest X-ray
- Children ages 5 and younger will receive an exam



- You may also need additional tests to help determine if you have TB infection *or* TB disease
- Depending on the results of your tests, you may need treatment for TB infection *or* TB disease

WHY SHOULD YOU BE TREATED FOR TB INFECTION?

- You have TB bacteria in your body, but they are contained by your immune system and are not active now
- You are not sick and cannot spread TB to others, but the bacteria *can become* active and begin to multiply, which can make you sick with TB disease
- The medication for TB infection kills the TB bacteria and will stop you from becoming sick
- If you are not treated for TB infection and you develop TB disease, you can spread the bacteria to others around you, and then they may become sick



To kill the bacteria in your body



So that you don't become sick with TB disease and spread it to others

HOW DO YOU PROGRESS FROM TB INFECTION TO TB DISEASE?

- Untreated TB infection can lead to TB disease
- If you have a weakened immune system, you are more likely to develop TB disease
 - ~ Your immune system is your body's way of fighting infection
- If your medication for TB infection is not taken as directed, you could develop TB disease
 - ~ It is important to take **ALL** your medication the way your healthcare worker tells you to



You have a weakened immune system



Your TB is untreated or the medication is not taken correctly

WHAT CAUSES A WEAK IMMUNE SYSTEM?



Poor nutrition/being underweight



Certain medications



Stress



HIV, or medical conditions such as diabetes or cancer



Substance/alcohol use disorders



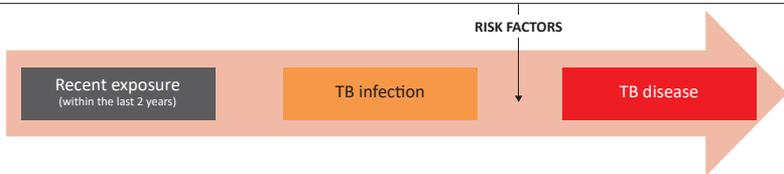
Older age



Young age (5 years or younger)

WHO IS AT THE HIGHEST RISK FOR DEVELOPING TB DISEASE FROM TB INFECTION?

- Someone recently infected (in the last two years)
- Children ages 5 years or younger who have been exposed to an adult or adolescent with TB disease
- Someone living with HIV
- Someone with medical conditions that weaken the immune system, such as diabetes, or who is on medications that weaken the immune system
- A person who has end-stage kidney disease
- A person with a substance/alcohol use disorder
- Someone whose previous TB infection was untreated or poorly treated



TREATMENT FOR TB INFECTION

- If you have TB infection, you can take medication to prevent you from getting TB disease in the future; this is known as preventive treatment
- There are several different treatments for TB infection; your doctor will talk to you about what treatment is right for you based on your circumstances, such as other health conditions or medications that you already take
- You will need to take **ALL** of your medicine the way it is prescribed and *avoid alcohol*; the three most common treatments for TB infection are:

Medication

Schedule

Length of Time

Isoniazid (INH)
and
Rifapentine

Weekly

3 months
(12 weeks)

-OR-

Rifampin (RIF)

Daily

4 months

-OR-

Isoniazid (INH)

Daily *OR*
Twice
Weekly

6 months

DOES MEDICATION FOR TB INFECTION HAVE SIDE EFFECTS?

- Like all medications, TB medications can have side effects, but most are minor and many can be treated
- Rifampin has some common side effects that are expected but are not usually serious:
 - ~ Body fluids like urine, sweat, or tears may turn red or orange; this is normal and will go away after you finish your treatment
 - ~ Birth control pills or contraceptive medicine will not work as well
- Tell your doctor or nurse right away if you have any of these side effects:
 - ~ Fever or chills
 - ~ Nausea or vomiting
 - ~ Yellow skin or eyes
 - ~ Light colored stools
 - ~ Fainting or dizziness
 - ~ Bruising or easy bleeding
 - ~ Upset stomach
 - ~ Less appetite
 - ~ Dark urine
 - ~ Rash
 - ~ Numbness or tingling in your fingers or toes
- You will have monthly visits at the clinic where a healthcare worker will examine you and ask about side effects and signs and symptoms of TB disease



Your urine, sweat, or tears may turn orange



You may have other side effects

MOST SIDE EFFECTS CAN BE TREATED!

WHAT SHOULD YOU EAT?

- Nutrients help your body fight off infection, and your body needs healthy nutrients now more than ever so try to eat healthy foods
- You can get Vitamin A from foods like eggs, cheese, fish, mangos, and avocados
- You can get Vitamin C from food such as potatoes, limes, lemons, and oranges
- You can get Vitamin D from milk, multi-grain bread, butter and cheese
- **The sun is also an excellent source of vitamin D, so try to get outside to get fresh air and exercise!**



TREATMENT FOR TB INFECTION PREVENTS TB DISEASE

- Even though you are not sick now and cannot spread TB to others, you **DO** have TB bacteria in your body
- Taking all your medication for TB infection as prescribed will kill the TB bacteria
- Treatment for TB infection will prevent you from becoming sick and spreading TB to others

Remember...

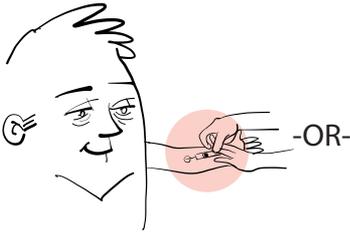


Medications for TB infection will kill the bacteria in your body

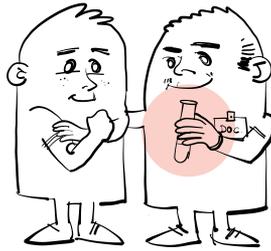


Treatment prevents you from becoming sick and spreading TB to others!

HOW DO YOU KNOW IF YOU HAVE TB DISEASE?



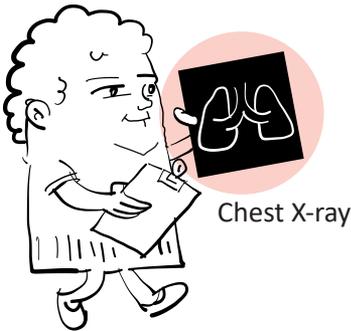
Skin Test
(also known as a TST)



Blood Test
(also known as an IGRA)



Sputum sample



Chest X-ray



Medical exam

- You will need to be tested to find out if you have TB disease
- You may be tested with a skin or blood test, which is usually positive in someone with TB disease
- You will be sent for a chest x-ray, which may be abnormal in someone with TB disease
- A healthcare worker may ask you to cough sputum into a container; the sputum will be sent to a lab to see if there are TB bacteria
- A doctor will examine you and ask about signs or symptoms of TB, like cough (including coughing up blood), chest pain, fever or chills, weakness, night sweats, or weight loss
- Based on the results of your tests and exam, a doctor can tell if you have TB disease

WHY YOU MUST BE TREATED FOR TB DISEASE

- TB disease is a very serious illness that can make you very sick or even die
- When you have TB disease in your lungs, the bacteria can be spread through the air to others, such as your family and friends, and they could become sick
- If you do not take all your medication for TB disease, in the future your treatment may be longer and include more medications
- Treatment for TB disease will kill the bacteria in your body so you can get better!

TREATMENT FOR TB DISEASE

- TB disease is treated by taking several medications for an average of 6 to 9 months
 - ~ Treatment usually starts with 4 medications and then changes to 2 medications later
 - ~ This is the most common treatment plan, but treatment can change with different types of TB or TB that has become hard to treat
- The most common medications are:
 - ~ Rifampin
 - ~ Isoniazid
 - ~ Pyrazinamide
 - ~ Ethambutol
- TB treatment is given by Directly Observed Therapy, or DOT, which means that someone from the health department will observe you taking your medications



- Drinking alcohol during treatment for TB disease can make you sick; **DO NOT DRINK ALCOHOL WHILE TAKING THESE MEDICATIONS**

DOES MEDICATION FOR TB HAVE SIDE EFFECTS?

- Like all medications, TB medications can have side effects, but most are minor and can be treated
- Rifampin has some common side effects that are expected, but are not usually serious:
 - ~ Body fluids like urine, sweat, or tears may turn red or orange; this is normal and will go away after you finish your treatment
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 - ~ Yellow skin or eyes
 - ~ Light colored stools
 - ~ Fainting or dizziness
 - ~ Bruising or easy bleeding
 - ~ Changes in your vision or hearing
 - ~ Aching joints
 - ~ Upset stomach
 - ~ Less appetite
 - ~ Dark urine
 - ~ Rash
 - ~ Numbness or tingling in your fingers or toes
- You will have monthly visits at the clinic



Your urine, sweat, or tears may turn orange

MOST SIDE EFFECTS CAN BE TREATED!



You may have other side effects

WHAT WILL HAPPEN AT YOUR MONTHLY CLINIC VISITS?

- A healthcare worker will examine you to assess your improvement
 - ~ The healthcare worker will ask about side effects and signs and symptoms of TB disease
- You may have sputum collected
 - ~ Results of the sputum test help your doctor determine if you are still contagious
- You may have other tests such as chest x-rays or blood tests, if needed



WHAT WILL HAPPEN IF YOU STOP TAKING YOUR MEDICATIONS?

- If you stop taking the medications too soon, you can become sick again
 - ~ If you are sick you can spread the disease to others
- If your medications are not taken correctly, you can become resistant to the medication, and it will become much harder to treat and will take much longer than the normal treatment plan
- In order to prevent TB disease from developing into drug-resistant TB disease, it is important to take **ALL of your medications as prescribed for the length of time it was prescribed**



HOW CAN YOU HELP STOP THE SPREAD OF TB?

- Follow the health departments instructions:
 - ~ Stay home and **DO NOT** go to public places until the health department says it's okay (when you are no longer able to spread TB)
 - ~ Do not allow visitors into your home
 - ~ Cover your mouth with a tissue when you sneeze or cough
 - ~ Wear a mask when you visit the doctor
 - ~ **TAKE ALL OF YOUR MEDICATIONS CORRECTLY**



- Open your windows to let fresh air in whenever possible
- Someone from the health department will ask you about who you have spent time with
 - ~ The people you live with and other close contacts will need to be tested so they can be treated if they have TB infection or TB disease
 - ~ Follow instructions on how to protect others in your home



TB CAN BE CURED!

- You can be cured of TB and live a normal life!
- To be cured of TB you need to:
 - ~ Follow the doctors instructions
 - ~ Follow instructions from the health department
 - ~ Keep all of your medical appointments
 - ~ **TAKE ALL OF YOUR MEDICATIONS CORRECTLY**



INFANTS AND CHILDREN WITH TB

- TB disease can be very dangerous for children, especially infants and children ages 5 years or younger
 - ~ Children can have different symptoms than adults and are more likely to have TB in other parts of the body, like the brain
 - ~ Children with TB disease must be treated **RIGHT AWAY**
 - ~ If not treated, TB can attack the brain or any part of the body very quickly and the child could get brain damage or even die
- Children with TB infection can get sick with TB disease very quickly
 - ~ Children who are contacts to someone with TB disease should be tested for TB infection **as soon as possible**
 - ~ Children with TB infection **must** be treated to prevent TB disease



PREGNANCY AND/OR BREASTFEEDING WITH TB



- Pregnant women who have TB disease must be treated
 - ~ Women with TB disease can pass the disease to their babies during pregnancy or after birth
 - ~ The baby can be born very sick with TB
- Pregnant women who have TB infection should be treated **IF** they are at high risk of developing TB disease
- Women may still breastfeed if they are on TB medications
- TB medications are safe for pregnant and breastfeeding women and their babies

HIV AND TB

- Persons living with HIV and TB infection are at **VERY HIGH RISK** of getting TB disease
 - ~ If you have TB infection, you need treatment **AS SOON AS POSSIBLE** so that you don't get TB disease
 - ~ If you have TB disease, you must take medications to cure the disease
- **If you are living with HIV** and your TB disease is untreated, or is not treated correctly, you could die

