

Frequently Asked Questions (FAQ) About TB

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What is tuberculosis (TB)?

Tuberculosis (TB) is a contagious disease caused by bacteria that kills nearly 2 million people every year and infects 1% of the world's population every year. Although it can cause disease in any part of the body, TB usually affects the lungs. Someone in the world is infected with TB every second: almost 1/3 of the world's population is infected with TB.

You can have TB infection and not have any symptoms (TB disease) because the germs that cause TB disease can remain dormant, or inactive, in the body for many, many

years. People with TB infection whose immune systems are weakened are more likely to develop TB disease. 5-10 % of people who have TB infection develop TB disease at some point in their lives.

What is the difference between TB infection and TB disease?

TB infection means that the TB germ can be found in your body, but it doesn't make you feel sick. A healthy immune system can't destroy the TB germ by itself if you get infected with TB, but it can keep the TB germs trapped in your lungs and unable to spread. But because the TB germ is strong and protects itself with a thick coating, it can remain in an inactive state in the body for many years.

TB disease occurs when the immune system can't keep the TB germs trapped anymore. The TB germs can attack the lungs, or even go to the kidneys, brain, or spine.

What are the symptoms of TB disease?

Usually, TB disease affects people's lungs. People with TB often have a cough that won't go away for months. Eventually, the cough often brings up mucus or blood. They often feel very weak. People with TB disease may also suffer weight loss, but this usually happens very slowly, so they may not notice. Sweating during the night and feeling tired all the time are other common symptoms. Depending on the way TB spreads through the body, symptoms of TB disease can vary. Sometimes people experience joint pain like arthritis if the TB is in their bones. If people with TB disease don't get medical help, they could die.

How does a person get infected with TB?

Like the germs that cause a cold or the flu, TB germs spread through the air. Only people who have TB disease have symptoms. They carry the TB germs in their lungs or their throat, and can spread the TB germs to other people. Coughing, sneezing, talking, and salivating by people who are infected spreads TB germs through the air. If another person inhales these germs, they can become infected with TB.

Without treatment, a person who has TB disease will infect an average of 10 -15 people with TB every year. (Most of these people who become infected with TB will not get sick with the disease.)

Why is the number of TB disease cases increasing every year?

Every year, more and more people die of TB. Badly funded and operated health services, the spread of HIV/AIDS, and multidrug-resistant TB are contributing to the growing number of cases of TB. Global trade, large numbers of refugees (who are often infected), and fast, easy travel by airplane also contribute to the spread of TB.

What makes TB infection turn into TB disease?

People whose immune systems or bodies are weaker are more likely to have their TB infection turn into TB disease. People who are more likely to have TB infection turn into TB disease are people who drink too much alcohol, people with

diabetes or cancer, people who are very thin, and people with HIV infection.

What is the relationship between HIV and TB?

Together, HIV and TB are a deadly combination, each disease making the other disease progress faster. HIV makes the immune system weak, so that someone who is HIV-positive and also infected with TB becomes much more likely to get sick with TB than someone infected with TB who is HIV-negative. In Ethiopia , TB is the leading cause of death among people who have HIV. HIV is the single major reason why there has been such a large increase in cases of TB over the past decade.

How can I find out if I have TB disease?

The first thing your doctor will do if you have any of the symptoms of TB is to take a chest X-ray. TB usually damages the inside of the lungs and this can show up on an X-ray. TB disease is confirmed through analysis of a sample of saliva from your mouth. If TB germs can be seen when the sample is looked at under a microscope, this means that the TB germs have escaped from your lungs, and you will be diagnosed with TB disease. This analysis requires a laboratory and can take several days to several weeks to confirm TB disease.

How is TB treated?

The recommended treatment and cure for TB is a strategy called DOTS (directly observed treatment, short course).

DOTS cures TB up to 95% of the time, even in very poor countries.

People with TB disease need to take anti-TB drugs every day for at least six to eight months. Because it can be very hard to remember to take the right amount of medication every day for a long time, the DOTS method recommends that people go to a health center for treatment every day to make sure that the person with TB swallows the correct dose of the right anti-TB medicines.

Usually, a person with TB will be given a combination of more than one of the following anti-TB drugs:

- ethambutol;
- isoniazid;
- pyrazinamide;
- rifampicin; and/or
- streptomycin.

Often, the drugs are conveniently combined into a single tablet, such as RMZ, which makes them easier to take.

After two months of treatment, another saliva sample is analyzed to make sure the drugs are working. At the end of treatment, a final saliva sample is analyzed to make sure the germs are gone.

Even if DOTS is not available in your area to give you medical support to follow the treatment schedule, remember that taking the correct dosage of the anti-TB drugs every day for the whole prescription period is very important if you want to be cured.

Why is TB becoming harder to treat?

Over time, the TB germ slowly figures out how to resist being killed by the major TB drugs, especially when the drugs are not taken properly. Some strains, or specific varieties, of TB have become resistant to at least one of the major anti-TB drugs, meaning that fewer weapons are available to fight the infection. These strains are called drug-resistant TB .

There are two kinds of TB drug resistance.

The first, called acquired drug resistance , is usually caused by improper treatment of TB disease. Improper treatment results from one or more of four different causes:

1. patients do not take all their drugs every day for the required period because they start feeling well,
2. only one drug (see the list above) was used for treatment,
3. doctors prescribe the wrong treatment, or
4. the drug supply is poor and it runs out during treatment.

The second, called primary drug resistance , happens when a person becomes infected with a strain of TB that is already

resistant to anti-TB drugs. The resistant strain probably originated in someone who had previously had improper treatment for TB. As a result, their TB is difficult to treat.

A particularly dangerous form of drug-resistant TB is multidrug-resistant TB (MDR-TB), which is resistant to more than one anti-TB drug, especially the two most powerful anti-TB drugs, isoniazid and rifampicin. Multidrug-resistant TB is very difficult to treat and the risk of dying from this form of TB is much greater than with other kinds of TB.

How long does treatment take to cure TB disease?

It varies. Treatment length depends on the strain, or specific variety, of TB a person has. If the strain is not drug-resistant, the treatment course may be as short as six to eight months. However, a person with resistant TB may require treatment every day for up to two years in order to be cured of the infection.

Why is it important to take medication for TB every day for the whole treatment period?

Even if a person feels better after taking TB drugs for a short time, they can remain infected if they stop taking the drugs before all the germs have been killed. If they stop taking the medicines too early, some of the TB germs in their lungs will survive the attack by the TB drugs and become resistant to anti-TB drug treatment. Even though a person might start to feel well again, stopping the drugs too early will make the TB come back and the person will feel sick again. This time, the TB will be much harder to treat. Even worse, the people they infect will have the same drug-

resistant strain. Treatment of drug-resistant TB is much longer, much more expensive, and much more toxic to the patient's body than treatment of non-drug-resistant TB disease.