

TERRIBLE DISEASE

Tuberculosis (TB) is a potentially serious infectious disease that mainly affects your lungs. The bacteria that cause tuberculosis are spread from one person to another through tiny droplets released into the air via coughs and sneezes.[5]

Once rare in developed countries, tuberculosis infections began increasing in 1985, partly because of the emergence of HIV, the virus that causes AIDS. HIV weakens a person's immune system so it can't fight the TB germs. In the United States, because of stronger control programs, tuberculosis began to decrease again in 1993, but remains a concern.

Many strains of tuberculosis resist the drugs most used to treat the disease. People with active tuberculosis must take several types of medications for many months to eradicate the infection and prevent development of antibiotic resistance.

Symptoms and causes

Symptoms

Although your body may harbor the bacteria that cause tuberculosis, your immune system usually can prevent you from becoming sick. For this reason, doctors make a distinction between:

- **Latent TB.** In this condition, you have a TB infection, but the bacteria remain in your body in an inactive state and cause no symptoms. Latent TB, also called inactive TB or TB infection, isn't contagious. It can turn into active TB, so treatment is important for the person with latent TB and to help control the spread of TB. An estimated 2 billion people have latent TB.

- **Active TB.** This condition makes you sick and can spread to others. It can occur in the first few weeks after infection with the TB bacteria, or it might occur years later.

Signs and symptoms of active TB include:

- Coughing that lasts three or more weeks
- Coughing up blood
- Chest pain, or pain with breathing or coughing
- Unintentional weight loss
- Fatigue
- Fever
- Night sweats
- Chills
- Loss of appetite

Tuberculosis can also affect other parts of your body, including your kidneys, spine or brain. When TB occurs outside your lungs, signs and symptoms vary

according to the organs involved. For example, tuberculosis of the spine may give you back pain, and tuberculosis in your kidneys might cause blood in your urine.[5]

When to see a doctor

See your doctor if you have a fever, unexplained weight loss, drenching night sweats or a persistent cough. These are often signs of TB, but they can also result from other medical problems. Your doctor can perform tests to help determine the cause.

The Centers for Disease Control and Prevention recommends that people who have an increased risk of tuberculosis be screened for latent TB infection. This recommendation includes:

- People with HIV/AIDS
- IV drug users
- Those in contact with infected individuals
- Health care workers who treat people with a high risk of TB

Causes

Tuberculosis is caused by bacteria that spread from person to person through microscopic droplets released into the air. This can happen when someone with the untreated, active form of tuberculosis coughs, speaks, sneezes, spits, laughs or sings.

Although tuberculosis is contagious, it's not easy to catch. You're much more likely to get tuberculosis from someone you live with or work with than from a stranger. Most people with active TB who've had appropriate drug treatment for at least two weeks are no longer contagious.[4]

HIV and TB

Since the 1980s, the number of cases of tuberculosis has increased dramatically because of the spread of HIV, the virus that causes AIDS. Infection with HIV suppresses the immune system, making it difficult for the body to control TB bacteria. As a result, people with HIV are many times more likely to get TB and to progress from latent to active disease than are people who aren't HIV positive.

Risk factors

Anyone can get tuberculosis, but certain factors can increase your risk of the disease. These factors include:

Weakened immune system

A healthy immune system often successfully fights TB bacteria, but your body can't mount an effective defense if your resistance is low. A number of diseases and medications can weaken your immune system, including:

- HIV/AIDS
- Diabetes
- Severe kidney disease
- Certain cancers
- Cancer treatment, such as chemotherapy
- Drugs to prevent rejection of transplanted organs
- Some drugs used to treat rheumatoid arthritis, Crohn's disease and psoriasis
- Malnutrition

- Very young or advanced age

Traveling or living in certain areas

The risk of contracting tuberculosis is higher for people who live in or travel to countries that have high rates of tuberculosis and drug-resistant tuberculosis, including:

- Africa
- Eastern Europe
- Asia
- Russia
- Latin America
- Caribbean Islands

Diagnosis

During the physical exam, your doctor will check your lymph nodes for swelling and use a stethoscope to listen carefully to the sounds your lungs make while you breathe.

The most commonly used diagnostic tool for tuberculosis is a simple skin test, though blood tests are becoming more commonplace. A small amount of a substance called PPD tuberculin is injected just below the skin of your inside forearm. You should feel only a slight needle prick.[2]

Blood tests

Blood tests may be used to confirm or rule out latent or active tuberculosis. These tests use sophisticated technology to measure your immune system's reaction to TB bacteria. QuantiFERON-TB Gold in-Tube test and T-Spot.TB test are two examples of TB blood tests.

These tests require only one office visit. A blood test may be useful if you're at high risk of TB infection but have a negative response to the skin test, or if you've recently received the BCG vaccine.

Treatment

Medications are the cornerstone of tuberculosis treatment. But treating TB takes much longer than treating other types of bacterial infections.

With 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, the form of TB (latent or active) and the infection's location in the body.

Recent research suggests that a shorter term of treatment — four months instead of nine — with combined medication may be effective in keeping latent TB from becoming active TB. With the shorter course of treatment, people are more likely to take all their medication, and the risk of side effects is lessened. Studies are ongoing.

Preparing for your appointment

If you suspect that you have tuberculosis, contact your primary care doctor. You may be referred to a doctor who specializes in infectious diseases or lung diseases (pulmonologist).[1]

What you can do

- **Be aware of any pre-appointment restrictions.** At the time you make the appointment, be sure to ask if there's anything you need to do in advance.
- **Write down any symptoms you're experiencing,** including any that may seem unrelated to the reason for which you scheduled the appointment.
- **Write down key personal information,** including any recent life changes or international travel.
- **Make a list of all medications,** vitamins or supplements that you're taking.
- **Write down questions to ask your doctor.**

Preparing a list of questions can help you make the most of your time with your doctor. For tuberculosis, some basic questions to ask your doctor include:

- What's the most likely cause of my symptoms?
- Do I need any tests?
- What treatments are available? Which do you recommend?
- What if the treatment doesn't work?
- How long do I have to stay on the treatment?
- How often do I need to follow up with you?
- I have other health problems. How can I best manage these conditions together?

What to expect from your doctor

Your doctor may ask some of the following questions:

- What are your symptoms, and when did they start?
- Does anyone you know have active tuberculosis?
- Do you have HIV or AIDS?
- Were you born in another country, or have you traveled in another country?
- Have you ever lived with someone who had tuberculosis?
- Were you vaccinated against tuberculosis as an infant?
- Have you ever had tuberculosis or a positive skin test?
- Have you ever taken medicine for TB? If so, what kind and for how long?
- What kind of work do you do?
- Do you use alcohol or recreational drugs?[4]