

TUBERCULOSIS

A GUIDE FOR ADULTS AND ADOLESCENTS WITH HIV



U.S. Department of Health and Human Services
Public Health Service





- Tuberculosis (TB) is caused by a germ called *Mycobacterium tuberculosis*.
- TB is spread through the air. You need to have close contact with a person who has TB to get it.
- Get tested for TB as soon as possible after learning you have HIV. Go to your doctor or your health department for a skin test for TB.
- You can take medicines to prevent and to treat TB.

What is tuberculosis?

Tuberculosis (TB) is a disease caused by a germ called *Mycobacterium* (my-ko-bak-TEER-I-um) *tuberculosis*. TB most often affects the lungs, but TB germs can infect any part of the body. TB may be latent or active TB. “Latent” means that the germs are in the person’s body but are not causing illness. If you have latent TB you will not have symptoms and cannot spread TB. However, if HIV has made your immune system too weak to stop the TB germs from growing, they can multiply and cause active TB (also called TB disease).

In people with HIV, TB in the lungs or anywhere else in the body is called an AIDS-defining condition. In other words, a person with both HIV and *active* TB has AIDS.

How is TB spread?

TB is spread from one person to another through the air. When a person who has TB disease of

the lung or throat coughs, sneezes, or sings, tiny, moist drops that contain TB germs are sent into the air. A person who breathes air that contains these drops may get TB. People with TB disease are most likely to spread it to people they spend time with every day, such as family members, friends, or coworkers.

You can't get TB from shaking hands, sitting on a toilet seat, or sharing dishes or utensils.

How can I avoid TB?

Some activities and jobs may increase your chances of spending time with people who have TB and getting TB. These include working in a health care setting (a hospital, a clinic, a doctor's office), in jails and prisons, and in shelters for homeless people. You and your doctor should decide whether you should work in such a place. If you do things that may increase your chances of getting TB, you and your doctor may decide that you need to be tested for TB more often than once a year.



If you can, avoid spending time with someone who has active TB but is not taking medicine or has just started taking medicine. A person who has been taking medicine for a few weeks can normally no longer spread TB to you.

That person's doctor will say when it's safe for other people to spend time with him or her.

If you are exposed to a person with active TB, you should ask your doctor about getting treatment, even if your skin test was negative for TB.

How do I know if I might have active TB?

Your symptoms depend on where in your body the TB germs are growing. TB germs usually grow in the lungs. TB in the lungs may cause:

- a bad cough that lasts longer than 3 weeks
- pain in the chest
- coughing up blood or phlegm from deep inside the lungs

Other symptoms are:

- weakness or fatigue
- weight loss
- no appetite
- chills
- fever
- sweating at night

Does TB affect only the lungs?

No. Active TB most often affects the lungs. But it can also affect almost any other body organ, such as the kidneys or the spine. A person whose TB is *not* in the lungs or throat usually cannot give TB to other people.



If you have a positive test result (which usually means you have latent TB), you may need other tests to see whether you have TB disease (active TB). These tests usually include a chest x-ray and a test of the phlegm you cough up. Because TB can grow somewhere else in your body, other tests may be done.

If you have a negative test result you should be tested again at least once a year, depending on your chances of getting TB. Discuss your chances of getting TB with your doctor.

Am I at greater risk of getting TB because I have HIV?

Yes. Latent TB is much more likely to become active TB in someone with HIV. This is because HIV weakens the immune system, which makes it harder for the body to fight off diseases like TB.

If you are an HIV-infected mother whose baby was born after you got HIV, have your baby tested for TB when the baby is 9 to 12 months old.

Since I have HIV, should I be tested for TB?

Yes. If you have not already had TB or if you had a positive result from a skin test for TB in the past, get a tuberculin skin test, or TST at the health department or your doctor's office.

When you have the test, a health care worker will inject a small amount of testing fluid (called tuberculin) just under the skin on the lower part of your arm. After 2 or 3 days, the health care worker will check your arm to see whether you had a positive reaction to the test.

If I have latent TB, can drugs help prevent it from becoming active TB?

Yes. The drug isoniazid can help prevent latent TB from becoming active TB. People with HIV infection who need to take isoniazid are also given a vitamin called pyridoxine to prevent peripheral neuropathy (a disorder of the nervous system).

Get tested for latent TB, with a TST, as soon as possible after



you learn you have HIV. If your skin test result is positive (but you do not have active TB), you will most likely be given 12 months of treatment with isoniazid to prevent active TB. You need to take your medicine for the full 12 months because TB germs die very slowly. Take your medicine exactly as your doctor or nurse tells you.

If you are a woman who is pregnant, you may still take isoniazid to fight TB. However, your doctor may tell you not to take the medicine until after the first 3 months of your pregnancy.

The germs that caused your latent TB might not be killed by isoniazid. In that case, you will be given another drug (probably rifampin) that is used to prevent TB.

If I have active TB, can it be cured?

Yes. The drugs that fight TB work as well as in people with HIV as they do in people who do not have HIV.

Several drugs are used to treat active TB. You will need to take more than one drug for several weeks. Your symptoms may go away within a few weeks after you start taking the medicine. *TB germs die very slowly, so you need to keep taking your*



medicine exactly as your doctor or nurse tells you (the right amount at the right time for the right length of time).

Can I give TB to other people ?

Yes. If you have TB disease of the lungs or throat, you can probably spread TB to other people. You may need to stay home from work or school or other activities for a few weeks. After you've taken your medicine for a few weeks, you will probably no longer be able to spread TB to others, but you need to continue taking your medicine for 6 to 9 months to be totally cured. Your doctor or nurse will tell you when you can return to work or school or other activities. The medicine should not affect your strength, your sexual function, or your ability to work. Taking the medicine as prescribed will keep you from again becoming sick with TB disease.

I am taking protease inhibitors to fight HIV infection. Can I also take medicine to cure TB?

Yes. But you should know that medicines for TB and the protease inhibitors affect each other. Your doctor will decide which combination of medicines will work best for you.

What is drug-resistant TB?

When TB germs are not killed by a certain drug, that TB is called “drug-resistant.” TB germs may become resistant when patients do not take their medicine long enough or in the right amount at the right times. Follow your doctor’s advice when taking medicines.

People who have drug-resistant TB can transmit it to others. Drug-resistant TB is found often in people who come from areas where TB is common (for example, Africa, Southeast Asia, Latin America) but it also occurs in parts of the United States.

When several different drugs can’t kill TB germs, the TB is called “multidrug-resistant” TB (MDR TB). A patient with MDR TB may need to see a doctor who is an expert on drug-resistant TB and who can recommend the best combination of drugs to fight the germs.

For more information, call:

Free referrals and information:

CDC National AIDS Hotline

English (800) 342-AIDS (2437)
[24 hours/day]

Spanish (800) 344-SIDA (7432)
[8 am-2 am EST] HIV and STDs

TTY (800) 243-7889
(Deaf and hearing impaired)
[Monday-Friday 10 am-10 pm EST]

Free materials:

CDC National Prevention Information Network
(800) 458-5231
1-301- 562-1098 (International)
P.O. Box 6003
Rockville, MD 20849-6003

Free HIV/AIDS treatment information:

AIDS Treatment Information Service (ATIS)
(800) 448-0440

Project Inform
(800) 822-7422

Drugs undergoing clinical trials:

AIDS Clinical Trials Information Service (ACTIS)
(800) 874-2572

Social security benefits:

Social Security Administration
(800) 772-1213

(You also may request a personal earnings and benefit estimate statement to help you estimate the retirement, disability, and survivor benefits payable on your Social Security record.)

CDC Division of HIV/AIDS Internet address:
http://www.cdc.gov/nchstp/hiv_aids/dhap.htm

Child Health Insurance Program
1-877-KIDS NOW (543-7669)

Other brochures in this series include:

Living with HIV/AIDS

Preventing Infections from Pets

Preventing Infections When You Travel

Safe Food and Water

You Can Prevent Cryptosporidiosis

You Can Prevent CMV

You Can Prevent MAC

You Can Prevent PCP

You Can Prevent PCP in Children

You Can Prevent Toxoplasmosis

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