



# LEARN ABOUT TUBERCULOSIS

What Everyone Should Know



We are all connected by the air we breathe



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# Learn About Tuberculosis

## What Is Tuberculosis and How Does It Spread?

Tuberculosis (TB) is a serious disease caused by bacteria. It's spread from person to person through the air and usually affects the lungs. When a person who is sick with TB coughs, sneezes, or speaks, they put TB germs in the air. Other people may breathe in the TB germs, and some may become sick.

Brief contact with people who are sick with TB (such as on trains or buses) is unlikely to give a person TB. TB is not spread by shaking hands, sharing food, or having sex.

People usually get TB germs in their bodies only when they spend a long time around someone who is sick with TB — for example, if they live or work with someone with TB every day.

Most people don't know they have TB until they become sick. That's why it's a good idea for people at high risk for TB (see page 5) to get tested. With proper care and treatment, **TB can be prevented and cured.**

## How the Body Fights TB

People usually get TB germs in their bodies only when they spend a long time around someone who is sick with TB. Even then, the body can usually fight off the germs.

### Latent TB

Most people who breathe in TB germs do *not* get sick. When a person's immune system is strong, it builds a wall around the germs so they can't spread and hurt the body. These walls are called *tubercles* — that's how tuberculosis gets its name. Once the germs are trapped inside the tubercles, they slow down and stop activity, as if they went to sleep. This is called **latent (sleeping) TB.**



### TB in the World

Globally, TB affects about 9 million people each year, killing about 2 million. In New York City, 2 in 3 cases occur among people born in countries with a lot of TB, such as China, the Dominican Republic, Ecuador, Guyana, Haiti, Honduras, India, Mexico, Pakistan, Peru, Philippines, South Korea, and all of Africa.

As long as the immune system stays strong, people with latent TB don't feel sick, and they can't spread their TB germs to others. But if the immune system becomes weak, people with latent TB can become sick. The TB germs wake up and begin to spread. That's why many people with latent TB take medicine to kill the TB germs.

If you have latent TB, your health care provider will tell you if you need to take medicine. See page 7 for more information about taking TB medicine.

## Active TB

When a person can't fight TB germs, they become sick. The TB germs multiply and do a lot of damage to the body. This is called **active TB**. People with active TB usually have symptoms:

- Coughing for more than 3 weeks
- Heavy sweating at night
- Feeling tired all the time
- Loss of appetite
- Weight loss
- Fever
- Chills

People with active TB must take medicine to kill the germs and prevent damage to the lungs and other parts of the body, including the brain, spine, and kidneys. Until they take medicine, people with active TB in their lungs are contagious. They can spread the disease to others when they speak, cough, or sneeze.

**To get well and protect others from getting the TB germs, people with active TB must take medicine.** If they don't, they will not get well. They may even die.



### What If I Have Spent a Lot of Time Around Someone With Active TB?

Ask your doctor or other health care provider for a TB test.

Sometimes people don't know they've been exposed to active TB until the Health Department tells them. If this happens to you, don't worry. The Health Department will explain how to get tested. You can go to your own provider, or visit a Chest Center for free.



## What's the Difference Between Latent TB and Active TB?

### Latent TB



TB germs in the body are walled off (sleeping)



Person can't spread TB germs to others



Person does not feel sick



TB test result usually positive



Chest X-ray usually normal



Sometimes has to be treated with medicine to prevent active TB

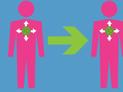


Usually treated with 1 medicine, for 4–9 months

### Active TB



TB germs in the body are active and spreading



Person can spread TB germs to others



Person usually feels sick



TB test result usually positive



Chest X-ray usually shows damage to lungs



Always has to be treated with medicine to cure the disease and prevent spread to others



Usually treated with 3 or 4 medicines, for 4–9 months



TB medicine has to be taken for several months to work. People with active TB feel better once they start taking medicine — symptoms usually go away quickly. The TB germs may come back, though, if a person doesn't take their medicine long enough. If this happens, the TB germs may be stronger and much harder to kill.

If you have active TB, your health care provider will tell you what medicines you need to take, and how long to take them. You have to take TB medicine until you're cured — usually 4–9 months. Only your health care provider can tell you when it's safe to stop taking medicine. See page 8 for more information about taking TB medicine.



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I got a call from a nurse at the Health Department. She said that somebody I sit next to at work has active TB. I was really freaked out, but she said, 'Don't worry — even if you have TB germs in your body, you can take medicine and not get sick...just get tested and we'll take it from there.'

I don't have health insurance, but she said I could get tested for free at a Chest Center. Turns out I was able to get a test for HIV, too. Both tests were negative. And free! I'm glad I went and found out.

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# Learn About Testing

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## Who Should Always Get Tested

Some people are at higher risk for getting TB. These people should get tested.

### People who have spent a long time around people with active TB

- Family members, friends, and co-workers of people with active TB
- People who have recently immigrated to the US from countries with a lot of TB (see page 1)
- People who have recently spent more than 1 month in a country with a lot of TB
- People who have worked or stayed in hospitals, prisons, homeless shelters, or nursing homes

### People with certain medical conditions

- People with weak immune systems, especially those with HIV infection, or very young children
- People with diabetes, chronic kidney failure, some cancers, or other medical conditions
- People who are injection drug users
- People who have received an organ transplant
- People who take certain medicines that suppress the immune system, such as chemotherapy for cancer, steroids, or TNF alpha blockers
- People who have a chest X-ray with evidence of old TB disease



### Should I Get Tested Even If I've Had the BCG Vaccine?

People at higher risk for TB (see above) should be tested even if they got the BCG vaccine as children, because it doesn't usually protect adults.

### Will My TB Skin Test Always Be Positive If I've Had the BCG Vaccine?

No. The TB skin test is usually negative after a year in most people who get the BCG vaccine. If you have a positive TB test, you probably have TB germs in your body, whether you were vaccinated or not.



## Two Ways to Test for TB

There are 2 tests for TB — a skin test and a new blood test. Your health care provider will talk to you about the tests and choose the right one for you.

### The Skin Test

When you get a TB skin test, your doctor or other health care provider will use a small needle to put a few drops of test solution under your skin. You'll be asked to return after 2–3 days. Your health care provider will examine the test site and give you the results.

### The Blood Test

When you get a TB blood test, your health care provider will collect a small sample of your blood. The blood sample will be sent to a laboratory and tested for TB. Your provider will give you the test results in 2–3 days.

## What TB Test Results Mean

### Negative Results

A negative test result usually means **you do not have TB germs in your body**. Sometimes, the test may not work if the TB germs are new in your body, or if your immune system is weak (for example, if you have HIV). In this case, you may need a chest X-ray. Your health care provider will use the test results as part of a complete medical exam to determine if you have TB germs in your body.

### Positive Results

A positive test result usually means **you have TB germs in your body**. But it doesn't always mean you have active TB (see page 2). Your health care provider will use other tests, such as a chest X-ray or sputum cultures (a test on mucus coughed up from your lungs), to look for signs of active TB.



### Take Care of Your TB Skin Test

When you get a TB skin test, the test area may swell and feel uncomfortable. The swelling usually goes away in about 2 weeks. If the skin test area itches, put a cold compress on it. Never scratch the test area or cover it with a bandage.

Remember! Go back to your provider in 2–3 days. They will examine the skin test and give you the results.

### One Positive Test Is Enough

If you test positive for TB, you do not have to keep getting tests — one positive test is enough! Your health care provider will tell you if you need additional tests during your treatment.

# Learn About Treatment

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## Taking Medicine for Latent TB

Not everyone with latent TB needs to take medicine. People with latent TB who are more likely to get sick usually take medicine to kill TB germs and prevent active TB. These people include:

### People who have had latent TB for only a short time

- People whose TB test changed from negative to positive recently (within the past 2 years)
- People who have recently spent a long time around someone who has active TB
- People who have recently immigrated to the US from countries with a lot of TB (see page 1)

### People with latent TB who have certain medical conditions

- People with weakened immune systems, especially those with HIV infection or very young children
- People with diabetes, chronic kidney failure, some cancers, or other medical conditions
- People who are injection drug users
- People who have received an organ transplant
- People who take medications that suppress the immune system, such as chemotherapy for cancer, steroids, or TNF alpha blockers
- People who have a chest X-ray with evidence of old TB disease

Your doctor will recommend a treatment that's right for you, based on your individual health needs and a complete medical exam. Latent TB is usually treated with 1 medicine for 4–9 months.

### Having HIV Makes It Easier to Get TB

Do you know your HIV status? Everyone should! Because HIV weakens the immune system, it makes it easier for a person to get TB. Get tested for HIV. It's important for your health.

In many parts of the world, TB is the #1 cause of death in persons with HIV. If a person with HIV gets TB, the 2 diseases can work together to make the person very sick, very quickly. Today's medicines can prevent and cure TB, and that's especially good news for people with HIV.

**If you have HIV and TB, proper care and treatment can protect your health.**

## Tips to Help You Remember to Take Your Medicine



Take your medicine at the same time every day.



Keep your medicine in one place so you can always find it.



Use a calendar — mark each day after you take your medicine.



Write yourself a reminder note — put it on your bathroom mirror or your refrigerator.



Wear a watch with an alarm. Set the timer to take your medicine.



Ask a family member or friend to remind you to take your medicine.



Use a 7-day pill box — fill it once a week.



Enroll in directly observed therapy.

## Taking Medicine for Active TB

**People with active TB must take medicine to get well and prevent others from getting their TB germs.** Even though TB is hard for a person to get rid of, it can be cured with proper care and medicine. Active TB is usually treated with 3 or 4 medicines for 4–9 months.

When you first begin taking your medicine, you will still be able to give the TB germs to other people. After a few weeks, you won't be able to spread the TB germs anymore. Your doctor will tell you how to protect friends and family (see page 10). Once you are no longer contagious, you can usually live at home, go to work, or attend school during your treatment.

Remembering to take your TB medicine every day can be hard. We can help you through a special program called **directly observed therapy (DOT)**. In a DOT program (see page 9), a health care worker makes sure you take your TB medicine every day. It's a proven way to stay on schedule with your TB medicine, and it's free!



## Possible Side Effects From TB Medicine

Today's TB medicines are safe and effective — most people take them without having any problems. Some people, though, may have side effects. Like all medicines, TB medicine can sometimes affect people in different ways.

If you need to take TB medicine, your doctor will tell you about possible side effects. Be sure to tell your doctor if you take other medicines. Remember, if you have any problems while taking your TB medicine, contact your health care provider immediately.

## How to Stay On Schedule With Your TB Medicine

It's very important to take all your TB medicine as prescribed, until your doctor tells you to stop. **Even when you begin to feel better, don't stop taking your medicine!** If you miss a couple of days or stop taking the medicine before you're supposed to, the TB germs can get stronger. And that could mean taking more medicine for a longer period of time.

## Ask About Directly Observed Therapy

Life can be complicated – especially in New York City! It can be hard sometimes to remember to take every single dose of TB medicine.

Directly observed therapy, also called DOT, makes it a lot easier to stay on schedule. **Ideally, all patients with active TB should receive DOT.**



### What Happens If I Skip a Dose or Stop Taking My Medicine Too Soon?

It takes a long time for your body to get rid of TB. To be cured, you have to take all your medicine as prescribed for 4–9 months.

If you skip doses or stop your medicine too soon, your TB germs can become resistant to the medicine you take. These resistant TB germs can also be spread to other people.

Drug-resistant TB is difficult to treat — it can take much longer to cure (up to 24 months). It also requires you to take medicines that have more side effects.

Avoid drug-resistant TB by taking all your medicine as prescribed until your TB treatment is finished. Your doctor will tell you when you're cured and it's safe to stop taking medicine.



Once you enroll, you'll meet with a health care worker to take your medicine. The health care worker, along with your doctor, will make sure you're taking the right medicine, and that you're feeling better. Best of all, the health care worker will meet you where it's convenient and confidential for you:

- At any of the Chest Centers in New York City
- At home
- At work
- At some hospital clinics

DOT is a proven way to help you get better. You can start the program at any time.

Ask your doctor or health care worker about DOT.

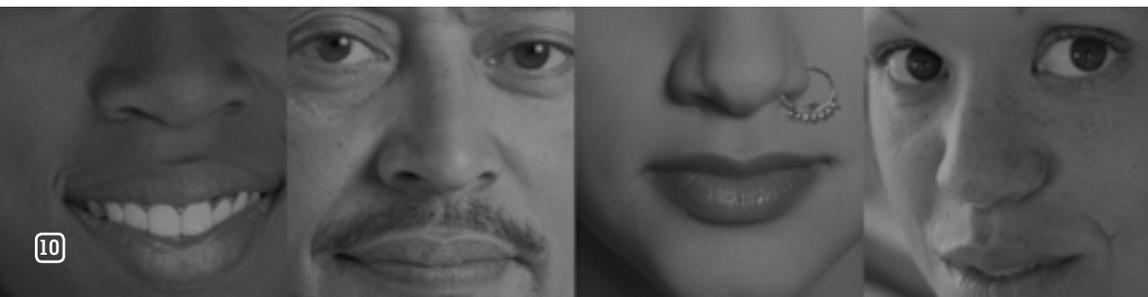
### Some Benefits of Directly Observed Therapy

- It makes it easier to take your medicine
- Most people on DOT take medicine only 2 or 3 times a week (instead of every day)
- It helps you get better as fast as possible
- It's convenient, private, and free
- It also includes the following free services:
  - Free TB medicines
  - Help with transportation to and from Chest Centers in New York City
  - Free MetroCards and food vouchers
  - Free social services

## How to Protect Your Contacts

If you have active TB, a specially trained health care worker will ask you to name people you spend a lot of time with. This is a normal part of treatment for TB, and it's the best way to make sure others don't get sick from your TB germs. These people include your family, friends, and co-workers, and are called **contacts**.

Until you take TB medicine, you can pass the TB germs to your contacts. Your health care worker will talk to some of your contacts, especially those people you spent a lot of time with before you started taking medicine. This is so they can get tested for TB and avoid getting sick.



It's important to know your privacy will be protected. Even if one of your contacts knows you have TB, the health care worker will not use your name when talking to them. In some cases, the health care worker may need to talk to your supervisor at work. The health care worker will tell your supervisor your name so that the right co-workers can get tested. But your supervisor will be asked not to tell other people you have TB.

It's important to talk to your health care worker about contacts. It helps keep the people you care about — your family and friends — from getting sick with TB.

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I didn't know I had active TB until I started feeling sick, but by then I had already given it to my 4-year old son. I felt so guilty. But my doctor said that anybody can get TB — it wasn't my fault. That made me feel a lot better.

The Health Department was really helpful. They came to my house and tested the whole family for TB. Now I'm taking medicine, my boy is taking medicine, and I'm not contagious anymore.

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# Learn Where to Get Information, Testing, and Treatment

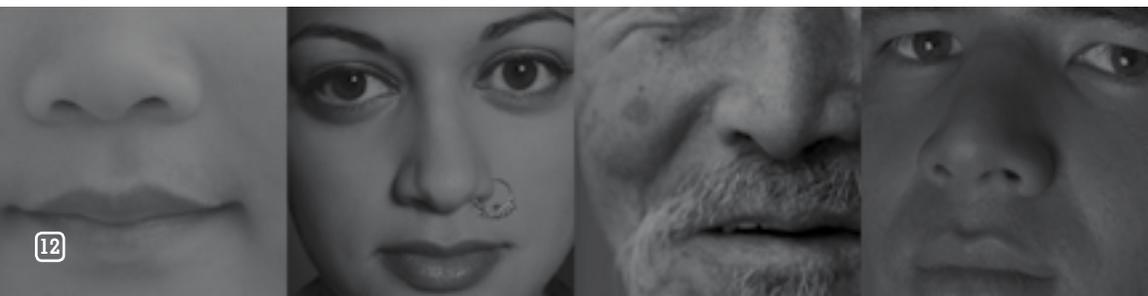
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## More Information About TB

For more information from the Health Department, visit [www.nyc.gov/health/TB](http://www.nyc.gov/health/TB), or call 311 and ask about TB.

### Additional TB resources:

- **Centers for Disease Control and Prevention**  
[www.cdc.gov/nchstp/tb/faqs/qa.htm](http://www.cdc.gov/nchstp/tb/faqs/qa.htm)
- **Charles P. Felton National TB Center**  
[www.harlemtbcenter.org/tb101/tb101\\_index.htm](http://www.harlemtbcenter.org/tb101/tb101_index.htm)
- **TB Education & Training Resources Website**  
[www.findtbresources.org](http://www.findtbresources.org)
- **World Health Organization**  
[www.who.int/health\\_topics/tuberculosis/en](http://www.who.int/health_topics/tuberculosis/en)



## Chest Centers in New York City

All Chest Centers:

- Provide excellent, free care
- Provide interpretation services in more than 170 languages
- Do not require health insurance
- Do not ask about immigration status

### Bronx

Morrisania Chest Center  
1309 Fulton Avenue, 1st Floor  
Bronx, NY 10456

### Brooklyn

Fort Greene Chest Center  
295 Flatbush Avenue Extension,  
4th Floor  
Brooklyn, NY 11201

### Manhattan

Washington Heights Chest Center  
600 West 168th Street, 3rd Floor  
New York, NY 10032

### Queens

Corona Chest Center  
34-33 Junction Boulevard, 2nd Floor  
Jackson Heights, NY 11372

### Staten Island

Richmond Chest Center  
51 Stuyvesant Place, 4th Floor  
Staten Island, NY 10301

**Call 311 for more information, including hours of operation.  
Telephone interpretation is available in more than 170 languages.**



**PROTECT YOURSELF**  
**PROTECT YOUR FAMILY**

