



Tuberculosis

Tuberculosis (TB) is a disease caused by a bacterium called *Mycobacterium tuberculosis*. Learn about the symptoms and treatment, and how to prevent infection.

What is tuberculosis?

Anyone can catch TB by breathing in TB bacteria. These bacteria are in tiny droplets in the air coughed out by people with TB in their lung. In most people, if you breathe in TB bacteria your immune system – your body's natural defence - will control most of the bacteria and you will not get ill.

However, if you do become ill, which can happen weeks, months or even years after you breathe in TB bacteria, this is called **active TB**.

In most people, the body's immune system controls the TB bacteria, which stay in the body at a low level. You won't get ill and you're not infectious. This is called **latent TB**.

In about five to ten out of every 100 people with latent TB, the TB bacteria can start to multiply again or reactivate and lead to symptoms of active TB.

Who is most at risk of developing TB?

You're most at risk of developing active TB if your immune system isn't working well. For example, you may have a condition like diabetes or HIV. If you get a confirmed diagnosis of TB, you will usually have tests for these conditions too. Or you may have had an organ transplant or treatment for conditions like cancer and rheumatoid arthritis.

Excessive alcohol and drug use and smoking are also risk factors for developing active TB.

What are the symptoms and how is TB diagnosed?

If you develop TB symptoms, this is **active TB**.

TB can affect any part of your body, not just the lungs. In the UK, just over half of people with active TB have TB in their lungs. The most common symptom of TB in the lungs (pulmonary TB) is a persistent **cough**. You might cough up **phlegm**, also called **sputum**, and it may have blood in it.

TB can affect other parts of your body such as the lymph glands, bones, gut, kidney or brain. The second most common place for TB infection is in the lymph glands, often those in the neck. Lymph glands are small areas in your body that contain white blood cells that can swell up if they're infected.

Other possible symptoms of TB are:

- feeling generally unwell
- losing weight
- losing your appetite
- fever with sweating, particularly at night
- extreme fatigue

How is TB diagnosed?

Your doctor may refer you to a TB specialist for testing and treatment if they think you have TB.

Diagnosing active TB

Diagnosing active TB of the lungs can be difficult and you will usually need several tests. The most important first tests are a chest X-ray and examining samples of your phlegm. Your doctor may also ask you to have an IGRA.

If you might have active TB in another part of your body, you will usually have a small sample taken from the part affected. For example, if you have enlarged lymph glands in your neck, your doctor will take a sample using a small needle, often guided by an ultrasound machine. It's not painful – you'll have a local anaesthetic. You'll also have a chest X ray to see if you have TB in your lungs as well.

You should get initial results within a few days. It can take weeks to find out the full results, which show which medicines will be effective.

Diagnosing latent TB

There are some situations where you may need to have a test to check for latent or active TB. For example, if you have been in contact with someone who has TB in their lungs, if you've recently spent time in a country where TB levels are high or if you've just moved to the UK from a country where TB is common.

In these cases, you should be given information and advice about the need for testing. Your health care professional may suggest having a test when you register as a patient. Tests include (www.nhs.uk/conditions/tuberculosis-tb/diagnosis):

- a simple skin test called the Mantoux test
- a blood test called an interferon gamma release assay (IGRA) that tests if your immune system has been exposed to TB bacteria
- a chest X-ray

Can I infect other people?

If you have active TB in your lungs, you can be infectious.

How infectious you are depends on:

- if you are coughing
- how much of your lung is affected
- how many TB bacteria are in your phlegm

If your specialist doctor or health care professional says you have **sputum smear positive** TB, you have a lot of TB bacteria in your phlegm and you are very infectious.

How can I reduce the risk of passing TB onto other people?

Your specialist TB team will tell you how infectious you are and how to reduce the risk of infecting other people. Simple advice is to cover your mouth with a tissue when you cough, dispose of your tissues carefully and then wash your hands. You may be asked to stay at home and have no new visitors. This is usually for two weeks, but it can be longer. After two weeks of effective, modern treatment you are usually no risk to other people. But you should not return to work, school or college until your specialist confirms you can do so safely.

As TB bacterium are spread by breathing in droplets with TB bacteria, there is no need to use separate dishes or cutlery.

What about the people I live or work with?

TB is a notifiable disease. This means that if you are diagnosed with active TB, it's very important the people you spend a lot of time with are offered testing for active or latent TB. You'll be asked for details of people you live with and other people you spend a lot of time with, including work colleagues. It is important to give this information to reduce the risk of other people getting unwell.

Not everyone you may have been in contact with will require testing. Your specialist will determine this. Your details will not be shared with your contacts by your health care professionals.

If you have **active TB** but it is **not** in the lungs you are **far less likely to be infectious** to others. If you have **latent TB**, you are **not infectious**.

Tips for staying at home

If you need to stay at home, there are things you can do to prepare and limit the spread of TB:

- Plan ahead to make sure you have everything you need to stay at home for the full duration of isolation. For example, food and any medicines you take.
- Do not have any new visitors to your home.
- Reschedule any routine appointments, such as the dentist. If you think the appointment is urgent, you should phone them in advance to discuss.
- Avoid public transport and don't go to any public places.

It is generally OK to continue living with the same people as before your diagnosis. They'll automatically be contacted by your nurse for TB screening tests. However, you might need to isolate from your family if you live with young children or people with a weakened immune system. If this is the case, talk to your TB team about the best ways to do this.

While in home isolation, it's important you take care of your mental well-being:

- Stay in touch with friends and family over the phone or on social media
- Spend time doing things you enjoy. This could be reading, listening to the radio or watching TV
- If you feel well enough, try and do some physical exercise. Take a look at our **online exercise videos** ([blf.org.uk/support-for-you/keep-active/exercise-video](https://www.blf.org.uk/support-for-you/keep-active/exercise-video)) or the **NHS website** (www.nhs.uk/live-well/exercise/easy-low-impact-exercises)
- Try to eat healthily and drink plenty of water

What should I do if I think I've been exposed to TB?

If you think you've been exposed to TB, you should ask your health care professional to refer you to a TB specialist. To be infected, you would have to spend prolonged periods (several hours) in close contact with an infected person. You can only become infected by breathing in TB bacteria – you cannot get TB from someone's clothes, cutlery, glass, toilet, handshake or surfaces they've touched.

The BCG vaccination

The BCG vaccination helps your body's defences fight off TB. It is only given once. It is most effective at protecting young children from the severest forms of TB. Its protective effect wears off as you get older.

In the UK, highest priority is to vaccinate:

- all infants (aged 0-12 months) or previously unvaccinated children aged one to five years with a parent or grandparent born in a country with a high incidence of TB
- all infants (aged 0-12 months) living in areas of the UK with a high incidence of TB
- unvaccinated people going to a country with a high incidence of TB
- health care professionals who are likely to be exposed to TB bacteria, including medical students

How is TB treated?

Active TB can be completely cured if you take a course of antibiotics against TB for at least six months.

Very occasionally, the TB bacteria may be resistant to one or more of the usual antibiotics so you might have different treatment or treatment for longer. Before starting treatment, your TB specialist should check your risk of having multi-drug resistant TB (MDRTB). For example, a history of previous incomplete TB treatment or contact with a known case of multi-drug resistant TB.

At the beginning of your treatment, you'll need to take lots of tablets – make sure you know how to take them correctly. For the first two months of treatment you will need to take four different antibiotics, some of which can be combined into one tablet or capsule. It's important not to miss any of your tablets. You may be offered support to take your medication either directly from the clinic, or in your home or community by outreach workers.

If you have **latent TB**, you may be offered a shorter course of treatment with fewer tablets. This aims to reduce your risk of developing active TB in the future. Your specialist nurses and doctors will discuss the benefits with you.

Your care will be co-ordinated through the local multidisciplinary TB team. This will include a TB specialist nurse and a key worker, who will support you in completing the treatment successfully.

Treatment for TB in the UK is free for everyone, regardless of immigration status.

Remember:

- It's best to take your TB tablets all in one go.
- Try not to miss taking your tablets. If you do forget them in the morning, take them later in the day.
- Don't run out of tablets. Always get a new supply before they are finished.
- If you have any concerns about your medication, always discuss them with your TB specialist team.

TB can be cured completely but only if you take your tablets regularly and keep taking them for the whole course. Don't stop just because you are feeling well again. **Only stop when your TB team or doctor tells you it is safe to do so.** TB can become resistant to treatment if you stop taking your drugs too soon or do not take them regularly.

Help to stop smoking

If you smoke, stopping will help the drugs cure TB. The NHS offers a free stop smoking service – your GP can refer you. Find out more at [blf.org.uk/smoking](https://www.blf.org.uk/smoking)

What are the side effects of TB medication?

TB medication does not usually cause serious problems.

One of the medications commonly used to treat TB, called **rifampicin**:

- will give any bodily fluids including your urine and tears an orange-red colour – this happens to everyone who takes it
- might permanently discolour soft contact lenses
- will make the oral contraceptive pill less effective. If you're taking the pill, ask your doctor about other methods of contraception while you have TB treatment

Another drug called **ethambutol** can, very rarely, affect your eyes causing blurring or the way you see colour - difficulty in telling the difference between red and green. If you notice these symptoms, stop taking ethambutol and tell your TB specialist team or your doctor, nurse or pharmacist. Your GP or the specialist TB team should test your sight at the beginning during treatment, to have a baseline understanding of your vision.

An important possible side effect with some of TB medication is inflammation of the liver. You should tell your doctor, nurse or pharmacist immediately if you start vomiting, have abdominal pain or develop yellowness around your eyes or skin. This could be a sign of jaundice.

All TB medication can cause a skin rash. If you have any concerns about your medication, always discuss them with your specialist.

How long does treatment for TB last?

You'll have to visit the clinic until your 6 months of treatment are finished - and sometimes a little longer.

At the beginning of your treatment, you may need to visit the clinic every two to four weeks to make sure:

- you are getting better
- you have no side effects from your treatment
- you are on the correct tablets and doses
- you are taking your treatment regularly
- you have your blood taken to check your liver function

Once it's clear you're on the correct treatment and are improving, you'll need to go to the clinic less often.

Returning to work

If you have active TB in the lung, your specialist doctors and nurses will tell you when you are considered not infectious and can return to work. In the UK some organisations require an assessment by occupational health teams or local health protection teams to decide if the people you work with need to be tested for latent or active TB. This is all done in strict confidence.

If you do not have infectious TB, you can return to work as soon as you feel well enough.

Get in touch with us to find support near you.

Helpline: 03000 030 555

Monday to Friday, 9am-5pm

Ringling our helpline will cost the same as a local call.

helpline@blf.org.uk

blf.org.uk

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blf.org.uk/TB

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We value feedback on our information. To let us know your views, and for the most up to date version of this information and references, call the helpline or visit blf.org.uk