



Pseudomonas infection

Pseudomonas is a type of bacteria that can cause lung infections. It mainly affects people who already have a lung condition or who have a problem with their immune system. It doesn't respond to commonly-used antibiotics, which means infections can be hard to treat.

If you have a lung condition and have repeated chest infections, or chest infections that don't go away with your usual treatment, ask your health care professional about having a test to see if you have Pseudomonas in your sputum.

If you have [cystic fibrosis](https://blf.org.uk/cystic-fibrosis) (blf.org.uk/cystic-fibrosis) or [bronchiectasis](https://blf.org.uk/bronchiectasis) (blf.org.uk/bronchiectasis), it's important to have effective antibiotic treatment as soon as Pseudomonas is found to prevent it from becoming long-term.

What is Pseudomonas?

Pseudomonas is a common type of bacteria usually found in soil and water. It rarely causes problems in people with healthy lungs.

Pseudomonas can be difficult to treat, [link down to treatment] as it's resistant to commonly-used antibiotics, like penicillin, doxycycline and erythromycin. You may need to take different antibiotics if you have Pseudomonas.

Sometimes antibiotics are unable to clear Pseudomonas from the lungs. When this happens, you may need to have long-term oral or inhaled antibiotic treatment to keep the bacteria at a low level.

What infections does Pseudomonas cause?

Pseudomonas bacteria can cause a variety of infections, not limited to lung infections, including:

- [pneumonia](https://blf.org.uk/pneumonia) (blf.org.uk/pneumonia)
- urinary tract infections
- wound infections
- septicaemia
- gastro-intestinal system infection

Sometimes people without existing lung conditions carry Pseudomonas in their lungs without causing an infection. This means it's not always necessary to have treatment.

Who is at risk of a Pseudomonas infection?

People more likely to get a Pseudomonas infection include those with long-term conditions like:

- [cystic fibrosis](https://www.blf.org.uk/cystic-fibrosis) ([blf.org.uk/cystic-fibrosis](https://www.blf.org.uk/cystic-fibrosis))
- [bronchiectasis](https://www.blf.org.uk/bronchiectasis) ([blf.org.uk/bronchiectasis](https://www.blf.org.uk/bronchiectasis))
- [chronic obstructive pulmonary disease \(COPD\)](https://www.blf.org.uk/copd) ([blf.org.uk/copd](https://www.blf.org.uk/copd))

It can also cause an infection in people with problems with their immune system. Pregnant women are at a greater risk of getting a Pseudomonas infection. This is due to hormone changes affecting their immune system.

How is a Pseudomonas infection diagnosed?

A sample will be taken from your lungs to see if Pseudomonas is present. This is usually through a sputum sample. But occasionally you may have a [bronchoscopy](https://www.blf.org.uk/support-for-you/breathing-tests/other-tests) ([blf.org.uk/support-for-you/breathing-tests/other-tests](https://www.blf.org.uk/support-for-you/breathing-tests/other-tests)), when a narrow tube is inserted through your nose or mouth, down into your lungs, while you are sedated.

How is a Pseudomonas infection treated?

If you have a Pseudomonas infection, it can usually be treated effectively with antibiotics. But sometimes the infection can be difficult to clear completely.

This is because many standard antibiotics don't work on Pseudomonas. The only type of tablet that works is [ciprofloxacin](https://www.bnf.nice.org.uk/drug/ciprofloxacin.html) ([bnf.nice.org.uk/drug/ciprofloxacin.html](https://www.bnf.nice.org.uk/drug/ciprofloxacin.html)). Other antibiotics in the same group whose names end in -floxacin are also effective. This kind of antibiotic can occasionally cause tendon problems – if you start to get heel pain while taking it, stop the medication and let your health care professional know immediately.

It's important to finish your antibiotic course

- it becomes harder to treat as the bacteria can become resistant to the antibiotics you were taking
- you may need to take more medication
- you may need to have injections as well as tablets

If your infection is resistant to this antibiotic, or you can't take it because of side effects, you may need to have intravenous antibiotics, and may need to be admitted to hospital for this.

If you have a long-term Pseudomonas infection that persists despite antibiotics, you may need to take antibiotics regularly. This is to keep the infection at a low level and to prevent flare-ups of your symptoms. This is usually prescribed by a consultant and you'll have regular reviews. This might include tablets or inhaled antibiotics taken through inhalers or a nebuliser.

Pseudomonas grow in mucus so keeping your airways clear makes it harder for the bacteria to grow. Ask your health care professional about seeing a physiotherapist who can recommend [airway clearance techniques](https://www.blf.org.uk/support-for-you/bronchiectasis/treatment) ([blf.org.uk/support-for-you/bronchiectasis/treatment](https://www.blf.org.uk/support-for-you/bronchiectasis/treatment)).

How can I avoid a Pseudomonas infection?

The main thing you can do is follow good hygiene rules. Regularly wash your hands with soap and water, always cough into a tissue, clean contaminated surfaces with a bleach-based cleaner, and wash contaminated clothes and sheets separately at the highest possible temperature. If you smoke, it's important to **stop** (blf.org.uk/smoking) as smoking damages your lung's immune defences.

Get in touch with us to find support near you.

Helpline: 03000 030 555

Monday to Friday, 9am-5pm

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

helpline@blf.org.uk

blf.org.uk

British Lung Foundation
73-75 Goswell Road
London EC1V 7ER

Registered charity in England and Wales (326730), Scotland (038415) and the Isle of Man (1177)

Code: IS38 **Version:** 3

Last medically reviewed: October 2019

Due for medical review: October 2022

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**