

Chest
Heart &
Stroke
Scotland



LIVING WITH BRONCHIECTASIS



ESSENTIAL GUIDE

This Essential Guide is about bronchiectasis.

It explains:

- What bronchiectasis is.
- What causes bronchiectasis.
- How bronchiectasis is diagnosed and managed.
- How to live well with bronchiectasis.

What is bronchiectasis?

Bronchiectasis is a long-term chest (lung) condition in which one or more sections of the airways become damaged and inflamed, causing them to become wider than normal.

Extra **mucus** is produced, which becomes difficult to clear, so it collects in the widened parts of the airways.

This build up of mucus in the airways can become infected by bacteria. Bacterial infection causes further inflammation and damage to the airways, which in turn causes more mucus to be produced that becomes more difficult to clear.

This creates a 'cycle' of infection, inflammation and damage.

How do lungs work?

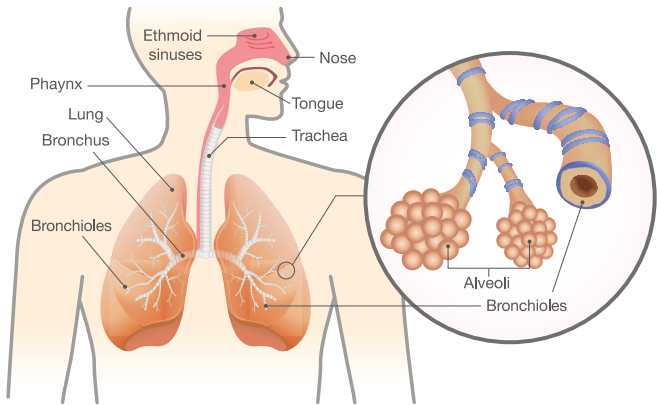
Air reaches the lungs through the **trachea** (windpipe), which divides into two branches called **bronchi**. These bronchi then branch off into smaller tubes - **bronchioles** - which end in tiny air sacs called **alveoli** in the lungs.

Oxygen that you breathe passes through the thin wall of alveoli into small blood vessels called **capillaries** to be carried to the rest of the body. At the same time, carbon dioxide passes from the capillaries out into the alveoli and is breathed out.

The airways are lined with glands to produce **mucus** (also called **sputum** or **phlegm**).

Mucus is a thick fluid that keeps the airways moist, and helps to protect the lungs by trapping particles such as dust, allergens and bacteria before they reach the lungs.

The airway is lined with fine hairs called **cilia**, which push mucus back up the airways to be coughed up or swallowed.



How does bronchiectasis affect the lungs?

In bronchiectasis, parts of the airways are damaged and inflamed (swollen).

This triggers extra mucus to be produced. This mucus is difficult to clear, so it builds up in the airways, and can block the bronchioles.

This mucus can also act as a reservoir for bacteria and other particles, making you more prone to chest infections.

What causes bronchiectasis?

In about half of all people with bronchiectasis the cause of the damage to their airways cannot be found. In the other half, a cause can be identified. Common causes include:

- A severe lung infection like pneumonia, tuberculosis or whooping cough.
- Chronic obstructive pulmonary disease (COPD).
- An obstruction or blockage of the airway.
- Acid from the stomach (acid reflux).
- Conditions which affect the immune system, causing infections.
- Conditions that cause inflammation, such as rheumatoid arthritis, ulcerative colitis or Crohn's disease.
- Inherited conditions like cystic fibrosis.
- Ciliary defects.

Who gets bronchiectasis?

Bronchiectasis can occur at any age, but is more common in older adults.

It is more common in women than men, although it is not known why.

The number of people living with bronchiectasis is increasing:

For every 1,000 people in the UK, between 2 and 3 have bronchiectasis. That means that between 12,000 to 18,000 people in Scotland are currently living with bronchiectasis.

About 3 out of every 10,000 people in the UK are newly diagnosed with bronchiectasis each year. That means that about 1,800 people each year in Scotland receive a diagnosis of bronchiectasis.

What are the symptoms?

The main symptoms of bronchiectasis are coughing up sputum (phlegm) and repeated chest infections.

Other symptoms include:

- Tiredness.
- Breathlessness.
- Coughing or wheezing.
- Coughing up blood (usually small amounts, but sometimes more).
- Joint pain and chest pain.

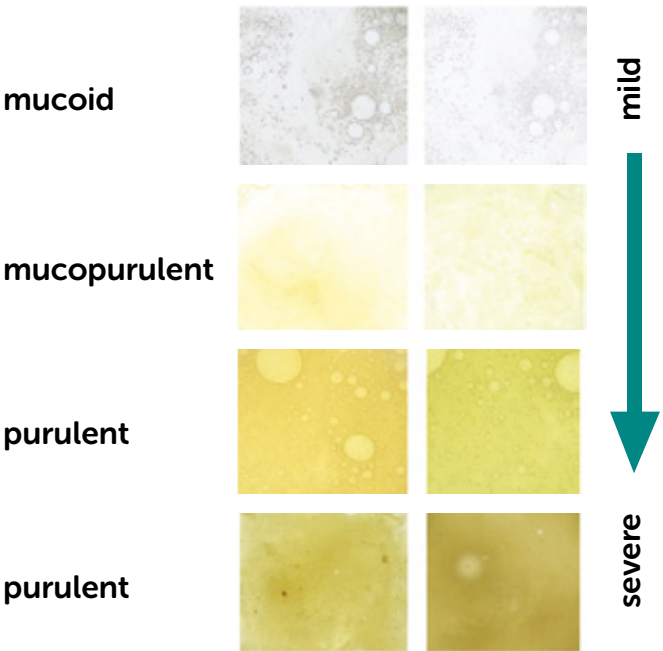
Symptoms depend on disease severity:

Mild disease:

Occasional cough producing small amounts of sputum. Occasional chest infections (less than 2 per year). Sputum is usually clear or light in colour.

Severe disease:

Coughing up large amounts of sputum most days. Frequent chest infections. Sputum is usually dark yellow, green or brown and bacteria are found in the sputum even when the person is well.



What is the outlook?

Once a diagnosis of bronchiectasis has been confirmed, the outlook for most people with bronchiectasis is good.

Prompt treatment with antibiotics when an infection occurs (or with regular antibiotics if needed) can reduce further damage and help to keep you well.

However, in some people, symptoms will gradually get worse over time as more of the airways become damaged.

More severe disease results in daily symptoms, reduced lung function and a reduced life expectancy.

Bronchiectasis can also cause additional health complications.

Complications of bronchiectasis



Bleeding from a damaged airway – this is usually just a small amount, but (very rarely) can be life-threatening.



Pneumothorax or 'collapsed lung'.



Heart failure (when your heart does not pump blood as well as it should).



Anxiety and low mood.



Self-consciousness, urinary incontinence, or sexual problems caused by chronic cough.



Chronic tiredness.



Poor appetite and weight loss.



Respiratory failure (when your lungs cannot exchange oxygen and carbon dioxide properly).

How is bronchiectasis treated?

There is no currently-known cure for bronchiectasis. However, there are ways it can be managed.

You will be supported in this by a range of clinical staff, which might include:

- GPs and practice nurses
- Respiratory nurses
- Respiratory specialists
- Physiotherapists

There are five main approaches to managing bronchiectasis:

Treating underlying causes

If your bronchiectasis is caused by an underlying condition, such as a lung infection, inflammatory disease, or acid reflux, treating this underlying condition can prevent further damage from bronchiectasis.

Airway clearance techniques

There are techniques you can use to clear excess mucus from your airways, including:

- Specific breathing techniques.
- Positioning to help the mucus drain.
- Using hand-held devices.

Your physiotherapist will work with you to decide which technique will be best for you and how often you should use these techniques. It is important that you are able to continue these on your own at home, so finding the right technique for you is vital.

Do these exercises regularly, even when you feel well. Usually they should be done for 20 to 30 minutes once or twice a day. If you only cough up sputum occasionally, you may need to do them less frequently.

For more information and short video clips visit **www.chss.org.uk/chest-information-and-support**.

Pulmonary rehabilitation

Pulmonary rehabilitation is a structured programme of physical activity and education specifically designed for people with long-term chest conditions.

It is designed to improve your level of fitness and quality of life and can help you manage your symptoms of breathlessness, cough and tiredness on a day-to-day basis. If you are having difficulty with daily tasks because of your breathlessness you should be referred for pulmonary rehabilitation.

Pulmonary rehabilitation courses usually last for 6 to 8 weeks, with sessions once or twice a week.

For more information on this, you can read Chest Heart and Stroke Scotland's booklet on **Pulmonary Rehabilitation**.

Treatment to open your airways

For some people with bronchiectasis, using an inhaler to open up your airways can help to improve symptoms.

You may be offered a trial of an inhaler called a **bronchodilator**, which opens up (dilates) the airways (bronchi) by relaxing the muscle, making it easier to breathe.

Your doctor, nurse or pharmacist should show you how to use your inhaler and make sure that you can use it properly, even under stress. If you find your inhaler difficult to use or you feel it is not working, tell your doctor or nurse. They will help you find a device that is more suitable for you.

For more information, see the My Lungs My Life self-management website (**www.mylungsmylife.org**) or our CHSS factsheet on **Safe Use of Inhalers and Nebulisers**.

Lung surgery

Very occasionally, lung surgery may be an option for people with a small local area of lung damage whose symptoms are not controlled by usual treatment. Your respiratory consultant will discuss the options with you.

Unfortunately, this does not often help in cases where the damage is more significant or more widespread.



Chest infections

Chest infections are common in people with bronchiectasis, and usually cause your symptoms to get much worse for a time.

This means it is important to recognise and treat chest infections early.

If you notice any of the following, contact your GP as soon as possible so that treatment can be started if necessary:

- Increased coughing or breathlessness.
- Sputum becomes darker, usually yellow or green. There may be blood in your sputum.
- Increase in the amount or the thickness of sputum you are producing.
- Generally feeling unwell - fever, aches and pains, increased tiredness and lethargy.

Treating chest infections

If your GP thinks you have a chest infection, they will take a sputum sample to confirm, and may prescribe you a course of antibiotics. This course of antibiotics will usually last for 14 days. **It is important to keep taking the antibiotics as prescribed until the course has finished.**

If your symptoms do not begin to improve within 48 hours of starting to take the antibiotic, or you are feeling worse, contact your GP for further advice.

Even if you have access to antibiotics at home, you must not take them until a sputum sample has been taken and processed - not all infections will respond to antibiotics.

You can take a sputum sample at home. You need a sterile specimen pot, form and specimen bag, which you can get from your doctor's surgery. If you cannot return the sample that day, keep it in the fridge overnight and take it to the surgery as soon as possible.

Managing symptom flare-ups

Other things that you can do to help manage a flare-up of symptoms include:

- Increasing the use of your bronchodilator inhaler (if you have one) to help control your symptoms.
- Using your airway clearance techniques more often to clear extra mucus from your airways.
- Resting more if you feel tired.
- Making sure you drink plenty of fluids (but if you have another medical condition that means you need to limit your fluid intake, seek advice from your doctor or nurse).

Most people can be treated at home if they have a chest infection, but some people will need to go into hospital.

Where you are treated will depend on how severe your symptoms are and how well you would be able to cope at home.

Preventing chest infections

If you have more severe bronchiectasis, you may have more frequent chest infections, which may return quickly once the antibiotic course is finished.

If this is the case, you may need to take regular antibiotics to prevent infections from recurring. There are several ways that you can do this:

- **Pulsed antibiotics:** regular short courses of antibiotics with breaks in between courses.
- **Regular oral antibiotics:** a low dose of an antibiotic taken every day or every second day.
- **Daily nebulised antibiotics:** a nebuliser is a device that turns the antibiotic into a fine mist that you can breathe in using a mouthpiece or a face mask. This means that the antibiotic goes directly into your airways, reducing side effects.

Follow-up and review

Your bronchiectasis should be reviewed at least once a year.

If your disease is stable this may be done at your GP surgery. However, in some cases where the condition is more severe or your symptoms are changing, a respiratory specialist should review your bronchiectasis.

You may find it helpful to keep a diary of the chest infections you have had, when they were and what medication you took.

At your review appointment, your doctor or nurse may ask you about your flare-ups, your normal symptoms, how well you are coping, and/or your medications.

You should also take these follow-ups as an opportunity to raise any concerns that you may have.



Taking care of your health

While there is no cure for bronchiectasis, there are lots of things that you can do to manage your bronchiectasis and live an active life.

- Monitor your symptoms and know when to get help.
- Reduce your risk of getting a chest infection.
- Keep as active as you can.
- Stop smoking.
- Eat healthily and keep up your fluid intake.
- Keep your your chest as clear as you can.
- Avoid air pollution.

Monitoring your symptoms

It is important to know what is 'normal' for you, so that you can recognise when you have an infection and be treated quickly.

Warning signs of a chest infection include:

- Feeling increasingly unwell over a few days.
- Change in sputum colour, quantity or thickness.
- Increased coughing and difficulty clearing your chest.
- Feeling more breathless than usual.
- Increased tiredness and lethargy.

If you have any of these symptoms it is likely that you have a chest infection - speak to your GP or health team as soon as you can.



Reducing the risk of chest infections

There are ways to reduce your risk of infection, avoiding further damage to your airways.

Make sure you are up to date with your vaccinations.

- Flu vaccine – you should have this every year.
- Covid vaccine – you should be contacted when boosters are available.
- Pneumococcal vaccine – this is usually a single one-off injection.

Try to avoid contact with people with colds and chest infections.

Get into the routine of good hand hygiene and encourage people around you to do the same.

Exercise frequently, as this can boost your immune system, which will help avoid infections.

Keeping active

Exercising can be difficult when you feel breathless, but it is worth it. Keeping physically active helps to:

- Clear sputum from your lungs.
- Improve breathing control.
- Increase your general strength and fitness, reducing overall fatigue.
- Improve general health, mood, and sleep.

It is important to be careful when exercising. Try to do activities that you enjoy and that do not exacerbate your symptoms. If you are unsure what exercises would be suitable, you can ask your physiotherapist.

Stop smoking

Smoking does not directly cause bronchiectasis, but does damage your lungs, making your symptoms worse. Stopping smoking can help to prevent further damage to your lungs, improving your symptoms.

Eating and drinking well

A good diet not only helps you to keep strong, fit and healthy but it will also help you to be better at fighting and avoiding infections. Aim to eat a healthy balanced diet and drink plenty of fluids (at least 6-8 glasses a day). Keeping well-hydrated helps to loosen sputum and make it easier to breathe.

Keeping your chest clear

Use your airway clearance techniques daily, as advised by your respiratory physiotherapist. If you are having difficulty clearing your airways and you have not seen a respiratory physiotherapist, ask your GP about referral.

For more information on healthy lifestyle, you can also read CHSS' booklets on:

Physical Activity

Stopping Smoking

Healthy Eating

Alcohol

Avoiding air pollution

Air pollution is particularly harmful to people living with a long-term chest condition like bronchiectasis. High levels of pollutants can irritate the lungs and increase symptoms such as breathlessness and cough.

Examples of air pollutants include:

- Wood or coal smoke.
- Traffic pollution.
- Industrial pollution, e.g. from factories.

To reduce your exposure to air pollutants:

- Try to avoid busy areas at rush hour, when traffic pollution will be highest.
- Avoid main roads and busy junctions.
- When you cycle, run or walk, try to take the back roads where there is less traffic.
- Avoid spending long periods of time near sources of industrial pollution.
- If you have a wood or coal fire, make sure that the room is well ventilated.

Managing coughs

Constant coughing in public can make you feel self-conscious. However, you can often manage this by planning ahead - for example, by doing chest-clearing exercises right before meeting people.

When you cough, the pressure on your bladder increases suddenly. For many people this is not a problem, but for some people, the combination of a persistent severe cough and weak bladder muscles can mean that urine leaks out. Although this can be embarrassing to talk about, speak to your GP, physiotherapist or other member of your healthcare team, as there are a number of things that can help.

For more information on managing coughs and breathlessness, you can also read CHSS' booklet on **Breathlessness**.

Living life with bronchiectasis

Most people with bronchiectasis are able to carry on working, travelling, and living their lives without too much difficulty.

If you are struggling with everyday activities, or having difficulty with work, help is available. Speak to your doctor or health team for advice and support, or call the Advice Line to find out what support is available near you.

For more information on managing life with a long-term health condition, CHSS also have booklets and factsheets on:

Returning to Work

Employment Rights

Holiday Information

Financial Services

Educational Support

Advice and support

Besides your health team, friends and family, you can find advice and support through:

Chest Heart and Stroke Scotland

Call 0808 801 0899 to speak to one of our trained Advice Line practitioners.

www.chss.org.uk

Email: advice@chss.org.uk

CHSS also offers a wide range of booklets on related topics which may be helpful, including:

Breathlessness

Oxygen Therapy

Physical Activity

Pulmonary Rehabilitation

Return to Work

Safe Use of Inhalers and Nebulisers

Stopping Smoking

You can find all of these online at

www.chss.org.uk/resources-hub

Call our Advice Line FREE on 0808 801 0899

Bronchiectasis Guide

A self-management guide produced by NHS staff and bronchiectasis patients.

www.bronchiectasis.scot.nhs.uk

Cystic Fibrosis Trust

Cystic Fibrosis (CF) often causes bronchiectasis. You can find support and guidance on managing CF through the Trust.

www.cysticfibrosis.org.uk

Email: helpline@cysticfibrosis.org.uk

Asthma + Lung UK

A UK-wide charity offering information, support, and resources for a range of respiratory conditions, including bronchiectasis.

www.asthmaandlung.org.uk

Tel: 0300 222 5800

Our publications are available for free to anyone in Scotland who needs them. Go to www.chss.org.uk/resources-hub for all our resources, including other Essential Guides in this series.

For free, confidential advice and support from our **Advice Line nurses**, call: 0808 801 0899 (Mon-Fri 9.30am-4pm), text: NURSE to 66777 or email: adviceline@chss.org.uk.

Across Scotland, over one million people – that's one in five of us – are living with the effects of a chest, heart or stroke condition. We are here to help everyone who needs us. But we need your support to do this. Go to www.chss.org.uk/supportus to find out how you can help more people in Scotland.

If you would like this resource in an alternative format, please contact our Advice Line nurses.

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NO LIFE HALF LIVED

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