



Nebulisers

What is a nebuliser?

A nebuliser is a machine that helps you to breathe in a medicine as a mist through a mask or a mouthpiece.

What does a nebuliser do?

A nebuliser converts a solution of a drug into a fine spray. You then breathe in the spray. Nebulisers use oxygen, compressed air or ultrasonic power to break up the liquid drug to deliver the dose you need.

What's a nebuliser used for?

If you live with a lung condition, you may inhale medications to clear your airways, relieve your symptoms and prevent flare-ups. Inhaled medications can relieve:

- wheezing
- breathlessness
- chest tightness

and help control build-ups of phlegm and mucus.

Most people use handheld inhalers to take their drugs. You may use a nebuliser to inhale medication to clear your airways or to treat infections:

- in an **emergency**, if you are struggling to breathe and need a high dose of your reliever medicine, or you need antibiotics to treat an infection. Paramedics and hospital staff may give it to you through a nebuliser.
- at home **if your condition is very severe**, and inhalers are not as effective as nebulised medicine.
- if you **can't use an inhaler** – because of another health condition, such as arthritis. Nebulisers are also used for babies and very small children.

For most people with lung conditions, especially for people living with COPD and asthma, using a handheld inhaler is easier and just as effective. But if you live with cystic fibrosis or bronchiectasis, your health care professional may arrange for you to use a nebuliser at home.

Only use the nebuliser to take the medicine prescribed specifically for you to use in it.

What are the different types of nebulisers?

There are a many different types of nebulisers available, such as jet nebulisers and ultrasonic nebulisers. Ultrasonic nebulisers can be expensive and are not often used outside hospitals.

Medications are usually administered through a mask. For a few, you may be advised to use a mouthpiece. This may be the best way to deliver the maximum amount of medication. For example, if you live with bronchiectasis, to get the most hypertonic saline solution into your lungs to help clear mucus. Or it may be to avoid the possible side effects if a medication gets in your eyes. Check with your health care professional if you're not sure.

Who can benefit from using a nebuliser?

As part of your treatment, you might be offered medications delivered by a nebuliser.

They will be specific to your condition. If you have:

- **bronchiectasis** - nebulisers can be used to deliver medications to help reduce the thickness of your phlegm so it's easier to cough it out, and to deliver antibiotics if you have a bacterial infection.
- **cystic fibrosis** - nebulisers are used to deliver medications to control the build-up of mucus and other symptoms if you have cystic fibrosis.
- **COPD** - There is no evidence that nebulisers are more effective at delivering drugs than handheld inhalers as part of your usual treatment. But you may use a nebuliser in hospital if you have a severe flare-up. Your consultant may decide to arrange a nebuliser for you to use at home in some circumstances.

Nebulisers can also be used in palliative care and to give drugs to very young children, such as those with viral bronchiolitis.

If you have **asthma**, your health care professional is unlikely to say you need to use a nebuliser at home. The latest research shows using a **reliever inhaler with a spacer is easier and just as effective**.

What medications are delivered by nebulisers?

A number of different medications can be given using a nebuliser, including:

- bronchodilators - drugs that open up your airways
- hypertonic saline solutions (medical grade salt water solutions) - that loosen mucus in your airways and make it easier to cough up
- antibiotics to treat and prevent infections

If your health care professional prescribes you nebulised antibiotics alongside other nebulised medication, they will give you the specialist equipment you need (such as tubing and filters) and tell you how to use it. Don't use the same mouthpiece, mask or tubing as for your other medications.

Can I get a nebuliser from the NHS to use at home?

We recommend that you use a nebuliser at home only if:

- your health care professional has recommended one for you
- your health care professional prescribes medications to use with it
- you and your carer are trained to use it
- you and your carer understand the risk of infection, and know how to clean and dry the nebuliser parts thoroughly to avoid infection

Medications used with a nebuliser can be provided on prescription, but the nebuliser itself isn't always available on the NHS.

In some areas, if your consultant or specialist respiratory clinic decides you would benefit from using a nebuliser at home, they may arrange this for you. In this case, you may be loaned a nebuliser by the hospital or a community respiratory service. They will usually be responsible for its service and maintenance – do check.

Sometimes a local respiratory service may provide the device without charge, but if this isn't an option, you may have to pay for a device.

If your health care professional arranges a nebuliser for you, it is important they arrange for you and your carer to be trained to use it. You should also be shown how to look after it and how to make sure it is working properly.

Your health care professional may agree you need a nebuliser and agree to supply the medication. If you have to buy it yourself, get one from a reputable manufacturer or dealer and make sure:

- you know how to service it
- you understand how you must clean it to prevent infection

Get advice from your hospital or the manufacturer about cleaning and maintenance before you buy.

Make sure you have a plan agreed with your health care professional about when to use a nebuliser. You should also discuss possible side effects. Your plan should also cover what to do in an emergency, if the nebuliser breaks down, or is very slow.

Travel nebulisers

If you need a nebuliser when you are away from home, tell your health care professional you plan to travel. Ask about getting a travel nebuliser and about a prescription for the medication you will need. You may need to buy one from a reputable supplier if a travel nebuliser isn't available in your area.

Have a look at our information about going on holiday with a lung condition for more tips.

Cleaning your nebuliser

All nebulisers need to be maintained and cleaned. If your health care professional arranges one for you, make sure they give you information about this.

Always follow the instructions from the nebuliser's manufacturer.

It can be time-consuming to clean and maintain your machine, so you'll need to build this into your routine. It's important to clean and dry your nebuliser thoroughly every day if you use one regularly.

Wash your nebuliser after each use by:

- washing your hands
- disconnecting the mask, mouthpiece and chamber
- washing the individual parts in warm soapy water
- shaking off excess water and leaving the parts to air dry on a clean tissue or kitchen paper towel

You may also be advised to disinfect the nebuliser regularly.

Parts such as mouthpieces, masks, tubing, filters and the nebuliser's chamber need to be changed regularly, at least every three to four months.

To avoid cross infection, you should never use other people's mouthpieces, masks or tubing.

Risk of infection from nebulisers

Hospitals assess the risk of infections caused by using nebulisers and have clear procedures to avoid spreading infections. These may include using nebulisers or their parts only once, and processes to clean and decontaminate them. At home, you should also be aware of the risk of infection. Nebulisers can be contaminated by infections in your airways and bacteria in the environment. Any fluid left in a nebuliser can easily grow bacteria. So it is very important you know how to clean and dry your nebuliser after every use.

Aquilon nebulisers

If you have a nebuliser in the Aquilon series, the Medicines and Healthcare products Regulatory Agency advised to stop using it in February 2018.

Get in touch with us to find support near you.

Helpline: 03000 030 555

Monday to Friday, 9am-5pm

Ringing our helpline never costs more than a local call and is usually free, even from a mobile.

helpline@blf.org.uk

blf.org.uk

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

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Code: IS16

Version: 5

Last medically reviewed: August 2018

Due for medical review: August 2021

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**