



**University Hospitals Birmingham**  
NHS Foundation Trust



# Home Nebuliser Patient Instructions - Bronchodilators

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[www.uhb.nhs.uk/patient-information-leaflets.htm](http://www.uhb.nhs.uk/patient-information-leaflets.htm)

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## What is a compressor and how does it operate?

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A compressor converts a liquid medication into an aerosol or mist that can then be inhaled via a nebuliser mask or angle mouthpiece. This provides a more efficient way of delivering higher doses of medications that are designed to relax and open the airways (bronchodilators) than using an inhaler. As a consequence, there is a higher risk of side effects using nebulised medication, including muscle tremors and palpitations. Please contact your GP/consultant if you experience any side effects.

### **Common examples of bronchodilators include:**

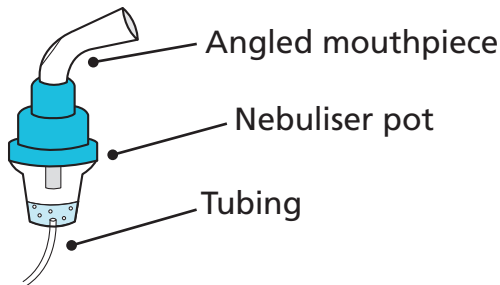
- Ventolin (salbutamol)
- Atrovent (ipratropium)
- Saline
- Hypertonic saline

## Equipment

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All air compressors provided will be mains-operated and suitable for UK voltage of 220-240V. The department currently hold three different types of air compressor. Each nebuliser is suitable for the administration of bronchodilators, and the type of compressor issued will depend on current stock availability.

The compressor will be issued with a nebuliser kit comprising of:



Either a mouthpiece or a mask may be issued, depending on patient preference.

**Please note:** There are certain nebulised medications where a mask is not advised – the physiologist issuing the nebuliser will advise if this applies to you

## How to use the nebuliser

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This information is designed to support the advice provided at the time of nebuliser issue.

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## Safety advice

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- Do not immerse the compressor machine in water
- Never leave the compressor unattended when plugged in and operating
- To only be used with prescribed medication
- Do not use more frequently than prescribed
- Never use the compressor if the plug or electrical cord is damaged/faulty
- Keep away from sources of heat
- Do not use if you are feeling drowsy or sleepy

## Operational instructions

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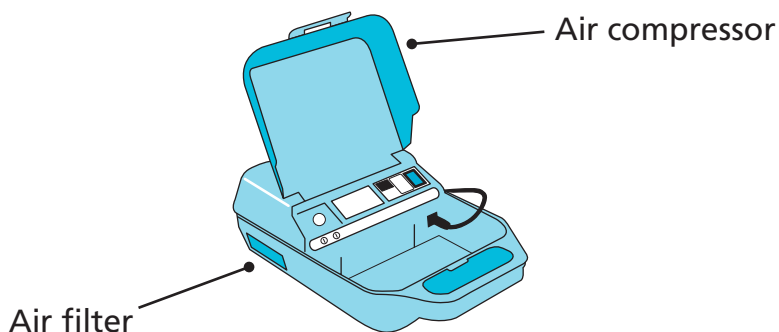
### Setting up your nebuliser

1. Check the electrical cord and plug are not damaged
2. Connect the plug to the mains power supply
3. If the electrical cord is not integrated into the compressor unit, push the cable into the mains socket of the nebuliser
4. When you are ready, use the on/off switch (position I is on, position O is off) to check the compressor is working

## Filling the nebuliser chamber

Always check your medication and expiry dates before using

1. Connect one end of the clear tubing to the airflow outlet of the nebuliser, and attach the other end to the bottom of the medication chamber



2. Unscrew and remove the top of the medication chamber
3. Twist the top of the tube of medication and pour around the side of the medication chamber, avoiding the centre piece
4. Screw the top of the medication chamber back into place and connect either the mouthpiece or mask
5. Turn on the nebuliser for a few seconds and if it is producing a fine mist from the mouthpiece or mask it is ready to use. If there is no mist, please refer to the troubleshooting section of this leaflet

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## Administering the medication

1. Sit comfortably in an upright position and turn on the compressor
2. Place the mouthpiece into the mouth with lips sealed around it and the medication chamber held straight, or secure the mask over the nose and mouth
3. Breathe in a relaxed manner, slowly and deeply for five to ten minutes, until the nebuliser starts to make a 'spitting' noise and the mist has stopped. It is normal for there to be a drop of medication left in the medication chamber at the end

## Cleaning and maintenance

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- The compressor **MUST** be kept clean and dust free
- Disconnect from power supply before cleaning
- Wipe the machine regularly with a damp cloth, and clean any spillages immediately
- Periodically check the plug and electrical lead for damage
- To ensure your compressor works efficiently and provides the greatest benefit, please follow the cleaning advice below:

**The equipment must be kept clean and dry to minimise the risk of chest infections**

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## Every day

- Dismantle nebuliser kit
- Unscrew the two halves of the medication pot and remove the mouthpiece or mask

**NOTE:** do not lose the baffle that sits inside the bottom half of the medication pot

- Wash the mouthpiece/mask and medication pot with warm soapy water

## **DO NOT immerse the tubing in water**

- Rinse thoroughly with water and leave to air dry
- Run the nebuliser with just the tube attached for 10 seconds to remove any residual fluid

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## Every week

- Wipe inside and outside of the compressor casing with a damp cloth to remove any marks
- Dismantle the nebuliser kit, wash with hot soapy water and rinse thoroughly
- Immerse in cold Milton solution (prepared as per manufacturer's directions) for 30 minutes

**NOTE: do not boil nebuliser pots/mouthpieces**

- Rinse thoroughly in water and leave to air dry

## Filters

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The air filter should be checked on a regular basis. If these become dirty or blocked the compressor may not operate properly. Once the filter is no longer clean, it will need to be replaced (approx. every three months). You will be shown how to check and change the filter for your machine when issued with the nebuliser, and provided with spare filters. Please contact the department for any further advice.

## Travel nebulisers

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The department also has a **limited supply** of travel- sized nebulisers with a battery available for loan. These are ideal for taking on holiday and can be operated directly or charged using a car 12V port or the mains. Travel nebulisers **MUST** be booked in advance, it is strongly recommended to provide as much notice as possible of the dates required, particularly during peak holiday times. Please contact the department for further details or to book a travel nebuliser.



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## Compressor servicing

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All compressors are serviced every **TWO** years by the medical engineering department. An appointment will be posted to you when your nebuliser is due for service. Alternatively, you can book your nebuliser service in at the same time as your consultant appointment. To do so, please telephone the department.

## Troubleshooting

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### **The compressor does not run**

- Check that the main lead is connected to the nebuliser
- Check that the plug is in the socket and the power is on
- Check the filter and replace if required

### **The compressor is running but makes only a little mist**

- Clean the medication chamber and mask/mouthpiece as directed in the 'cleaning and maintenance' section
- If this does not work, try a new medication chamber

### **The compressor is running, the medication chamber bubbles but makes no mist**

- Clean as directed in the 'cleaning and maintenance' section

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## Help and advice

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Should the nebuliser make an unusual noise or take longer than 15 minutes to deliver the medication, please contact the department to arrange an appointment to get a replacement. Please call the Lung Function and Sleep department on 0121 371 3870 - we are open Monday to Friday between 09:00 -17:00.

We do not provide an out of hours service, so if your nebuliser fails to provide the usual relief or the effect is shorter than normal, you should seek urgent medical advice from your GP or contact your out of hours service provider.

Replacement nebuliser consumables (masks, tubing, mouthpieces and filters) can be obtained from the department – please contact us and request for these to be posted or to arrange a convenient time for collection.

**If you no longer require the use of your nebuliser and/or compressor, please return it to the Lung Function and Sleep department as equipment is limited. If you are unable to return it yourself, someone may do this on your behalf. Alternatively call us on 0121 371 3870 to discuss.**





The Trust provides free monthly health talks on a variety of medical conditions and treatments. For more information visit [www.uhb.nhs.uk/health-talks.htm](http://www.uhb.nhs.uk/health-talks.htm) or call 0121 371 4323.

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