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## Care and Use of Nebulisers



### **NOTES**

Please use this space to makes any notes or questions you may have.

This leaflet has been written to provide information about the use and maintenance of nebuliser compressors. We hope it answers some of the questions or concerns you may have. It is not intended to replace talking with medical or nursing staff.

## What is a nebuliser compressor?

A nebuliser is a small chamber into which the liquid medicine is put and through which the air is blown to make a mist which you can then inhale.



A **compressor** is an electrical or battery powered device that is the driving force behind the aerosol delivery.





What are the benefits of using a nebuliser compressor? Nebuliser's are able to deliver a larger amount of medication than the amount you would receive from several puffs of your inhaler.

They are useful when patients are too ill or otherwise unable to use handheld inhalers and when drugs are not available in handheld inhalers.

Nebulisers are also used to provide symptomatic relief from breathlessness in palliative care.

Are there any risks involved with using the nebuliser? Nebulisers should only be used on the advice of your doctor or nurse. The high doses of medication that are given by the nebuliser can cause side-effects, depending on the medication.

Tremor to the hands, palpitations and muscle cramps are some of the more common side effects that can be experienced, but please refer to the drug information leaflet for the potential side-effects to your specific drug.

Caution is also required when using nebuliser therapy in the elderly, particularly if they also have heart disease.

If your nebuliser equipment is dirty you can put yourself at risk of developing a chest infection from it so it is important to follow the cleaning instructions carefully.

### Are there any alternatives to using a nebuliser?

Yes, in some cases alternative options are available. Hand held inhalers can be used with a spacer device to deliver higher doses of standard treatments of your reliever therapy, such as Salbutamol (Ventolin) or Ipratropium bromide (Atrovent).

Your doctor or nurse should have ensured that the full range of hand held inhalers has been tried before opting for nebuliser therapy.

### How do I use the nebuliser compressor?

You should always read the instructions on your compressor before using the device.

- Place the prescribed amount of medicine into the nebuliser chamber. If you are using 2 different types of relievers, such as Salbutamol and Ipratropium Bromide, you can put them in the chamber together.
- Connect the nebuliser to the tubing and attach it to the compressor unit. Attach the mouthpiece or mask to the nebuliser and switch on the compressor.

## What should I do if the nebuliser compressor breaks down?

It is important to remember that the nebuliser is delivering the equivalent of lots of puffs of an inhaler. In an emergency an inhaler can be converted into a temporary nebuliser to tide you overnight or over a weekend.

## To do this you should have an ordinary reliever inhaler

(Salbutamol) and a spacer. The spacer can be prescribed by your GP if you do not have one. It is a good idea to be prepared and have a spacer at home if you should ever need it.

## How to use the spacer in an emergency

You can use between 10 – 15 puffs of your reliever inhaler through your spacer as follows;

- Shake the inhaler and put 1 puff of your medication into the spacer.
- Breathe in and out through your mouth slowly and steadily five times.
- Wait 30 seconds and repeat the procedure until you have taken the 10-15 puffs. You can do this each time you would normally have used your nebuliser.

## What should I do if I am not getting any relief after using the nebuliser?

If you are having difficulty breathing, you are becoming worried by a change in your symptoms or you are not getting the usual relief after using the nebuliser you should continue to use the nebuliser and urgently contact your GP or dial 999 and attend your nearest Accident and Emergency department.

### Who do I contact if I need further advice?

For further information or advice please call the respiratory nurse specialist between the hours of 9am – 4pm, Monday-Friday on 0151 600 1172 or 0151 600 1537.

Alternatively contact NHS direct 24 hours a day on 0845 46 47

### **Compressors**

Problem	Possible solution
The compressor is taking longer than usual (more than 10-15 minutes)	Change the filter or service the compressor
The compressor does not run	<ul> <li>Push the plug firmly into the socket and ensure connections are secure</li> <li>Make sure all switches are on</li> <li>The fuse in the plug may need replacing</li> <li>Return the machine for servicing</li> </ul>
Inlet filter looks dirty	Change 3 monthly or when discoloured
The compressor is too noisy	<ul> <li>Service the compressor or replace with a new model</li> </ul>
Difficult to transport or take on holiday	Ask for advice about a portable type from Respiratory Nurse.
Servicing/electrical check required	<ul> <li>Annually or according to manufacturers instructions. See page 4 re replacing parts and servicing</li> </ul>

## **Tubing**

Problem	Possible solution
The tubing is dirty	<ul> <li>Change 3 monthly or annually if durable</li> </ul>

- Sit comfortably in an upright position.
- If you are using a mouthpiece, seal your lips around it and breathe through your mouth, not your nose. If you are using a mask place it over your mouth and nose.
- Breathe normally and take an occasional deep breath.
- Do not talk whilst using the nebuliser.
- Keep the nebuliser chamber upright whilst in use.
- When mist is no longer coming from the mouthpiece or mask, after approximately 10 – 15 minutes, the treatment is finished. A small amount of medicine may be left at the bottom of the chamber, which is quite normal.

#### How do I care for the nebuliser?

### Cleaning

It is important to keep your nebuliser clean and dry to stop germs growing which could cause an infection.

Each time you use the nebuliser you should;

- Disconnect the tubing from the mouthpiece or facemask and nebuliser, as this should not be washed.
- If the tubing becomes damp inside attach it to the compressor and turn it on to let the air which is pumped through dry it out.
- Unscrew the nebuliser and wash it along with the facemask or mouthpiece in warm soapy water.
  Rinse under warm running water.
- Dry thoroughly before reassembling. Switch the nebuliser on for a few minutes to ensure any remaining moisture is dried.

 Once per week, disconnect the compressor from the mains and wipe over the compressor and the tubing with a clean damp cloth.

### Replacing parts and servicing

The respiratory nurse will inform you how often your individual nebuliser equipment will need replacing.

The tubing and mouthpiece or facemask should be changed every 3 months.

The compressor should be kept off the floor and the filter changed every 3 months or sooner if it becomes discoloured.

You should avoid using the nebuliser in a smoky room as this will cause the filter to clog up and need changing sooner.

Your own compressor needs to be serviced at least once a year, either by the supplier or at the medical engineering department at the Liverpool Heart and Chest Hospital. If you wish to use this service please telephone the medical engineering dept on 0151 600 1215 to confirm a suitable time to have this done. This will generally be between the hours of 1pm-3.30pm. The medical engineers request that you thoroughly clean your compressor prior to bringing it in for a service as dirty compressors may be refused a service.

Often yearly packs, which include replacement masks, mouthpiece, nebuliser and tubing are available from your supplier.

# What should I do if my nebuliser system is not working properly?

Below is a guide to the most common problems and possible solutions concerning the use of nebulisers and compressors.

### **Nebulisers**

Problem	Possible solution
The nebuliser makes no mist	<ul> <li>Check the plastic tubing is connected properly</li> <li>Clean the nebuliser and ensure all the parts are put back correctly</li> <li>If unsuccessful you may need to replace the nebuliser.</li> </ul>
The nebuliser leaks	<ul> <li>Hold the nebuliser upright and check that connections are well fitted</li> <li>Replace the nebuliser if there is no improvement</li> </ul>
The nebuliser is dirty, despite regular cleaning	<ul> <li>Change the         disposable         nebuliser every         3 months. If         you have a         durable         nebuliser you         should change it         annually.</li> </ul>
Nebuliser is taking longer than usual (more than 10-15 minutes)	Clean the nebuliser or replace with a new one.