

General Information on Jet Nebuliser Use

Patient Information Leaflet

Introduction

A nebuliser is a machine that converts liquid medication into a fine mist to be inhaled into the lungs. Your child is prescribed with the following medications to be administered with a nebuliser to treat his/her lung condition. Operate the nebuliser machine following the manufacturers' instructions

Drug Name: _____

Drug Dosage & Frequency: _____



- Wash your hands with soap and water. Rinse and dry your hands.
- Use a syringe to measure the exact amount of medication as prescribed by your doctor.
- Put the measured medication into the nebuliser cup.
- You may need to add in sodium chloride 0.9% solution to make up to a final total volume of 4-5ml if instructed by your doctor.
- Close the nebuliser cap tightly and attach the mouthpiece / facemask to the nebuliser cup.
- Plug the air compressor into an electrical outlet.



- Connect one end of the tubing to the nebuliser cup and other end to the air compressor.
- Turn on the air compressor and check to ensure you can see the mist of medication.
- Place the mouthpiece in your child's mouth or the facemask over your child's face. Ensure a good seal.
- If possible, ask your child to breathe in and out deeply to allow better delivery of medication into lungs. If not possible, just ask your child to breathe normally.
- Your child should stay seated in an upright position during the whole treatment until the full dose is completed and you can no longer see the mist of medication.

Tips: You can distract your child by watching TV or or doing an activity to occupy them during the nebulizer treatment. Puzzles, books or coloring may help the child sit still. Ideally, hold the child in your lap since the child should be sitting upright to receive the optimal dosage of medication.



- Turn off the nebuliser and clean up your nebuliser as per manufacturer's manual or as per KKH "General Information On Jet Nebuliser Cleaning" information leaflet

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General Instructions for Cleaning of Jet Nebuliser Parts

To ensure safety and increase the effectiveness of the treatment, it is important to keep the nebuliser clean.

Follow the manufacturer's cleaning instructions after each use to prevent drying out of any remaining medication in the cup which can affect the effectiveness of the nebuliser.

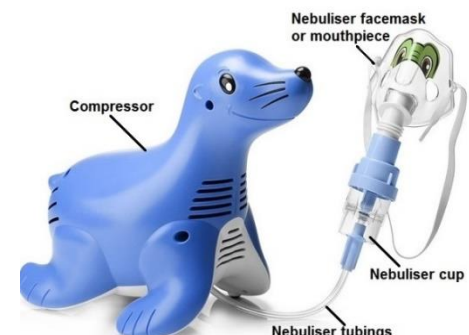
Note: The cleaning steps of your nebuliser may differ depending on the brands & models. Always refer to the manufacturer's manual for the specific cleaning instructions.

Before each treatment:

- ◆ Add cooled boiled water to the medication cup and turn on the unit till the mist is completed. The water mist will help rinse the medication cup. Then add medication to the cup for treatment.

After each treatment:

- ◆ Wash hands thoroughly.
- ◆ Disassemble the nebuliser parts. Discard any remaining medication from the medication cup.
- ◆ Rinse the mask/mouthpiece and nebuliser cup with cooled boiled water for at least half a minute.
- ◆ Shake off excess water and place nebuliser parts on a clean towel for air drying.
- ◆ Reassemble the nebuliser parts and turn on the compressor for a few seconds to dry.
- ◆ **Do not wash the nebuliser tubing or compressor.**



Disinfection (at least once a week):

- ◆ Wash hands thoroughly.
- ◆ Disassemble the nebuliser parts.
- ◆ Clean the nebuliser cup & mask/mouthpiece with dishwashing detergent and water
- ◆ Disinfect the nebuliser cup & mask/mouthpiece using either the **cold soak*** or **heat methods**** (depends on manufacturer's recommendations and patient's preferences).
- ◆ Reassemble the nebuliser parts and tubing and turn on the compressor briefly for further drying.
- ◆ **Do not disinfect the nebuliser tubing or compressor.**
- ◆ **Consult nebulizer manufacturer's manual for specific disinfection instructions.**

* Cold soak methods:

- 1) Soak in 70% isopropyl alcohol for 5 min **OR**
- 2) Soak in 3% hydrogen peroxide for 30 min
After cold soak disinfection, rinse nebuliser parts with cooled boiled water and allow the parts to air dry on a clean towel.

** Heat methods:

- 1) Boil for 5-20 mins (duration depends on manufacturer's recommendations) **OR**
- 2) Microwave (in water) for 5 min **OR**
- 3) Use an electric steam steriliser (~6-8 mins)
After heat disinfection, carefully remove nebuliser parts and shake off excess water. Allow the parts to air-dry.

Taking Proper Care of Medications and Nebuliser

Proper use and care of the nebuliser and prescribed medications is essential to maintaining good health.

Before using a nebuliser, please note the following:

- ◆ Do not use a nebuliser against medical advice. Nebulisers should only be used by the intended patient.
- ◆ Always wash hands before using a nebuliser to prevent the spread of germs.
- ◆ Make sure all medicine has not expired. Check to see that medication is clear and not discolored
- ◆ Only use medicine that is intact and undamaged.
- ◆ The prescribed medications should be kept in a safe and cool place, away from direct sunlight unless otherwise stated.
- ◆ Wash, dry, and store equipment according to manufacturer instructions after each use.
- ◆ Check filter weekly and change the air filter at least once a month or more often if required.




Troubleshooting Nebuliser Problems

To help avoid problems, always clean the nebuliser according to the manufacturer's instructions after treatment. It is important to store it in a cool, dry place and keep it out of reach of children and pets. Please call the vendor for routine servicing as per vendor recommendations.

Common problems include:

- ◆ **Loss of power:** If the nebuliser uses batteries, test the batteries to be sure they are still charged.
- ◆ **Clogged unit:** If the unit stops working or appears to be clogged (powder/particles present in nebuliser parts), clean the mesh cap or filter according to instructions. The mesh cap should last for up to six months before needing replacement and filter life depends on the model.
- ◆ **No mist:** If the nebuliser seems to slow down or does not produce a fine mist after a certain period, it is time to change your nebuliser set. Be sure to change the nebuliser regularly to ensure effective treatment.

Examples of Jet Nebuliser Brands available in Singapore*

Brand and Model	Nebuliser (For illustration purposes)	Company/ Contact information	Estimated Retail Price (subject to changes without prior notice by retailers)
Philips Respironics InnoSpire Elegance Nebuliser		Junnimed Services Pte Ltd 15 Changi North St 1, #01-20, I-Lofts @ Changi, Singapore 498765 Tel. 6546 7737 Contact person: Ms Angel Chan Tel. 8268 4520	S\$90
Nidek Medical Pulmo-mist Compressor		Somnotec (s) Pte Ltd 50 Ubi Crescent, #01-03, Ubi Tech Park, Singapore 408568 Tel 6844 0002 Contact person: Mr. Aloysius Chung Tel. 9115 2008	S\$250
Bremed BD5002 Compressor Nebuliser		Rainbow Care Blk 3007 Ubi Road 1 #02-410, Singapore 408701 Tel. 6223 0904 Contact person: Mr Lin Shijie Tel: 9773 3000	S\$130

The above list is not exhaustive, other brands of nebulisers are also available at external retail pharmacies.

*All information contained herein is intended for your general information and is not a substitute for medical advice for any lung conditions. Please note that the above list does not constitute endorsement of the abovementioned products by KK Women's & Children's Hospital. If you have any specific questions on medical care, please consult your doctor.