



Using The Aerobika® with a Manometer

People with some lung conditions such as cystic fibrosis, bronchiectasis with nontuberculous mycobacterial (NTM) disease and COPD often produce a large amount of mucus. If the mucus is allowed to collect in the airways, breathing may become difficult and infection may occur.

The Aerobika® airway clearance device is a technique to help mobilize mucus from the airways. The manometer is an attachment with a green, yellow and red indicator that is used to provide visual feedback when you exhale.



How to Use the Aerobika®

- **Assure proper setting of the resistance indicator on the Aerobika®.** This is on the same side as the mouthpiece. Your health care provider will set the indicator when you get your Aerobika®. Move the resistance indicator toward the + to increase resistance. Shift the indicator toward – to decrease resistance.
- **Sit up with good posture to use the Aerobika®.** Sometimes we may have you lie in a postural drainage position to use the Aerobika®. Postural drainage positions include lying flat on your back, and alternating right and left sides. Your health care provider will show you postural drainage positions to use if these are recommended.
- **Place the Aerobika® mouthpiece in your mouth.** Seal your lips tightly around the mouthpiece.
- **Take in a fairly deep breath and hold it for about 2-3 seconds.**
- **Exhale actively (but not too forcefully) through the mouthpiece until you no longer hear the flutter.** Keep your cheeks as firm as possible when you exhale.
- **Manometer:** When you exhale (not forcefully) keep the red indicator in the green zone.
- **Repeat this maneuver for 10-20 breaths.** Try to resist coughing during this phase.

Daily Therapy

- **Follow this cycle:**
 1. **10-20 blows or as tolerated**
 2. **2-3 huffs**
 3. **One big cough to bring the sputum up and out. Try not to swallow the mucus.**
- **Huff coughing** is a type of coughing if you have trouble clearing your mucus. Take a breath that

is slightly deeper than normal. Use your stomach muscles to make a series of 3 exhalations with the airway open, making a "ha, ha, ha" sound. Follow this by normal breathing and a deep cough if you feel mucus moving.

- **Repeat cycle for 10-15 minutes 2 to 4 times a day** (or as prescribed by your health care provider).
- Your health care provider will tell you how many times a day to use the Aerobika®. If you use a short acting inhaled bronchodilator, use the Aerobika® 15 minutes after you inhale the medicine.
- **Postural Positions: Complete 2 cycles with each position.**
 - Sitting upright
 - Laying on back
 - Laying on right side
 - Laying on left side

How to Use Your Aerobika® with your Nebulizer

The Aerobika® device may also be used with a nebulizer. Your healthcare provider will advise which medicine to use for combined treatments.

- Medicines which open your airways (e.g. albuterol) or help to thin mucus (e.g. hypertonic saline) may be used with your Aerobika® because they help remove or thin the mucus in your lungs.
- Medicines you want to stay in your lungs, like antibiotics, are not recommended to be used with your Aerobika/ Nebulizer.
- Remove the mouthpiece (or mask) from the nebulizer.
- Attach the nebulizer to the open end of the Aerobika®.
- Place the medicine or hypertonic saline in the nebulizer cup.
- Ensure your nebulizer is set-up correctly and medication has been added to the nebulizer cup.
- Switch on the compressed air source, and complete your combined treatment using the breathing technique outlined above.
- Make sure you have read and understood instructions provided prior to your treatment.



Daily Cleaning

The manometer should not be submerged. Take the manometer off the Aerobika® before cleaning and wipe with a disinfectant cloth.

Wash your device (except the manometer) with warm soap and water at the end of each day.

- Soak the five disassembled parts of the device for 15 minutes. Agitate gently.
- Rinse the parts in warm water.
- To dry, shake the parts to remove any excess water.

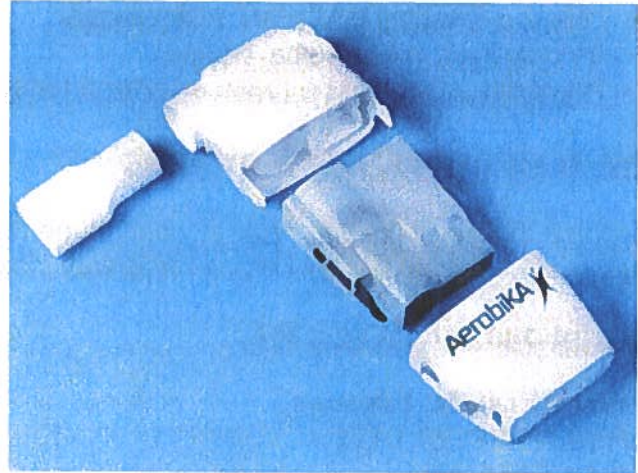
Dishwasher (cleaning with overly dirty dishes is not recommended)

- The five disassembled parts may be washed in a dishwasher by securing the parts in a basket

- on the top rack. Wash them in a normal wash cycle with dishwasher detergent and rinse aid.
- **Always allow parts to air dry thoroughly before you reassemble the device.**

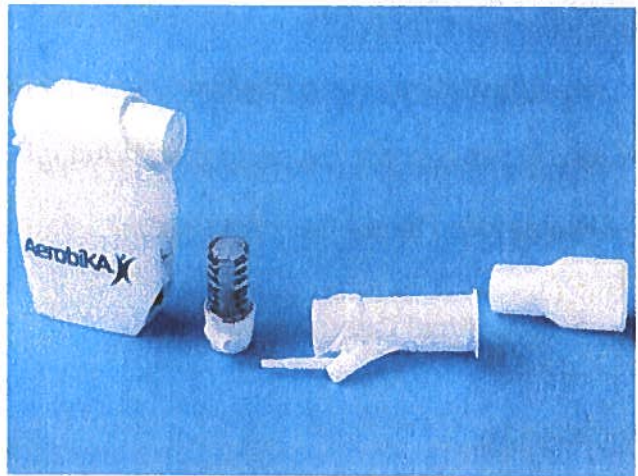
Reassembling the Device

- Insert the valve cartridge into the bottom case. If it does not slip easily into place, rotate 180° and try again.
- Connect the top and bottom cases until you hear both Attachment Tabs “click” (this may occur simultaneously).
- Ensure the tabs are engaged by firmly pressing the two halves together.
- Reattach the mouthpiece and manometer.



Disinfecting the Device

- The manometer should be wiped with a disinfectant cloth.
- The Aerobika® should be disinfected weekly by using any of the methods listed below.
- If considered clinically necessary for the patients' disease state, the device may be sterilized after each use.
- Prior to disinfection, follow cleaning instructions.
- **Distilled water can be used to avoid build-up from mineral rich tap water.**



Boiling

- Place the disassembled parts in a colander to prevent plastic parts from coming in contact with the hot bottom and gently place into boiling water for 5 minutes.
- Carefully remove parts from the water and allow to cool.

Microwave Steam Bag

- The disassembled parts may be disinfected in the microwave in a steam cleaning bag (i.e. Quick-Clean MicroSteam bag) following the manufacturer's instructions using distilled water.
- Carefully remove from bag and allow parts to cool.

Isopropyl Alcohol (70%)

- The disassembled parts may be soaked in 70% isopropyl alcohol for 5 minutes, rinse well.

Hydrogen Peroxide (3%)

- The disassembled parts may be soaked in 3% Hydrogen Peroxide for 30 minutes, rinse well.

Always allow parts to air dry thoroughly before you reassemble the device.

CAUTION: Failure to follow the cleaning or disinfecting instructions may have an adverse effect on device performance.

NOTES:

- This is a **SINGLE PATIENT USE** device.
- Do not share this medical device.
- This product should be replaced after 6 months of use or immediately if damaged.

How to replace the Aerobika®:

To replace the Aerobika you need a prescription from your health care provider. The prescription should read: "Aerobika PEP Device for airway clearance."

Prescriptions can be sent to:

ALLIED MEDICAL *Express*

Toll Free #: 833.961.0122

Fax #: 913.451.9521

www.alliedmedexpress.com

- **Aerobika®** Oscillating Positive Expiratory Pressure Therapy System
- **AeroEclipse® XL** Reusable Breath Actuated Nebulizer (R BAN)
- **Ombra e®** Table Top Compressor

Monaghan Medical Customer Service

800.833.9653

PARI Products

- Acapella e® DH, Acapella e® DM

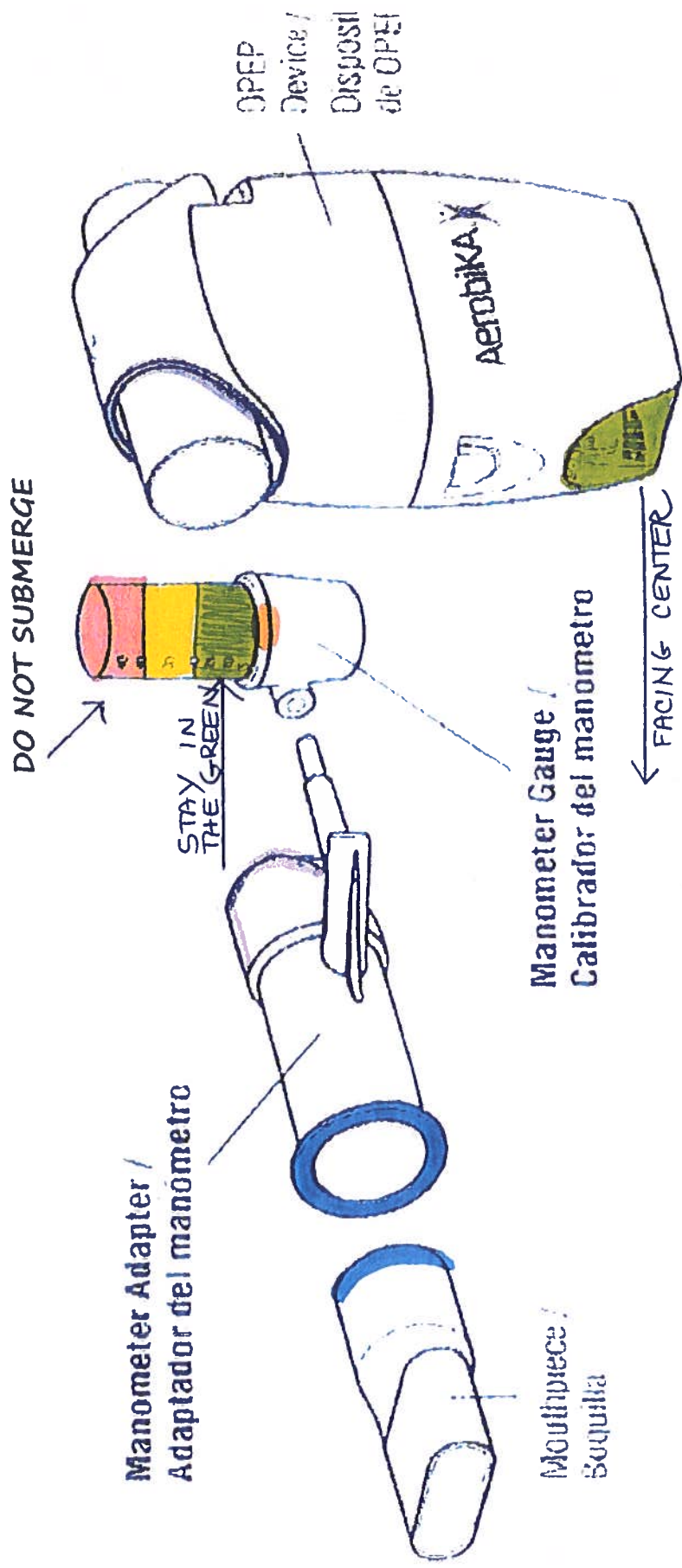
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Manometer Adapter for the Aerobika®



MEDfacts

An Educational Health Series From National Jewish Health®



Using An AeroEclipse® XL Reusable Nebulizer

Many medications are available as inhaled treatments. Inhaled methods deliver medication directly to the airway, which is particularly useful for respiratory problems. The patient and health care provider can choose from a variety of delivery systems for inhaling medication.

A nebulizer delivery system consists of a nebulizer (small plastic medication cup with a lid that drops into the cup and twists) and a source for compressed air. The air flow from the compressor to the nebulizer changes the medication solution to a mist. When inhaled correctly, the medication has a better chance to reach the small airways. This increases the medication's effectiveness.



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Assembling the AeroEclipse® Nebulizer and Air Compressor

1. Place the compressor and nebulizer on a clean, flat, hard surface. The compressor should be placed where it can safely reach its power source and where you can reach the ON/OFF switch.
2. Connect the air tubing from the compressor to the nebulizer base.

Preparing the Medication

1. Wash your hands prior to preparing each treatment.
2. Always use a clean nebulizer.
3. Untwist and remove the medication cup from the nebulizer unit.
4. Measure the correct dose of medication and other solutions prescribed by your health care provider.
5. Put the medication and other solutions into the medication cup.
6. Replace the top of the nebulizer. Gently twist the top to tighten.
7. Ensure the nebulizer is kept in an upright position so your medicine doesn't spill.

8. If using a mouthpiece, attach the mouthpiece to the front of the nebulizer. The green exhalation valve on the mouthpiece should be pointing down.
9. If using a mask, attach the mask with the elbow adaptor to the front of the nebulizer.
10. Connect the tubing to the bottom of the nebulizer.
11. Rotate the Mode Selector on the top on the nebulizer to the breath actuated position. The green button will be in the up position.



12. If the mode selector is in the continuous position the green button will be in the down position.



13. Turn the compressor on and check the nebulizer for misting.

If the nebulizer is not misting

1. Check all of the connections.
2. Refer to the manufacturer's instructions.

Taking A Nebulized Treatment Using A Mouthpiece or a Mask

1. **Sit comfortably.** Position yourself in an upright, sitting position that will allow you to take a deep breath.
2. **If using a mouthpiece, put the mouthpiece in your mouth between your teeth and close your lips around it.**
3. **If using a mask, secure the mask on your/your child's face and inhale with your mouth open.**
4. **Gently breathe in and out slowly.** As you breathe in the green button on top of the nebulizer will move to the down position. As you breathe out the green button will move to the up position.
5. **Hold the nebulizer in an upright position.** This prevents spilling and promotes nebulization.
6. **Assure deep breathing throughout the treatment.** This allows the medication time to deposit in the airway.
7. **Continue these steps until the onset of inconsistent nebulization, i.e., sputtering.**

Care and Cleaning of Nebulizer Equipment After Each Use

Please follow the manufacturer's instructions for cleaning the nebulizer equipment. Some suggested guidelines include the following:

1. Rotate the mode selector to the breath activated position before cleaning (green button up).
2. Take apart the nebulizer. Wash all parts (except tubing and mask) in liquid dish soap and water. Rinse with water.
Or
3. Place the nebulizer parts (except tubing and mask) in a dishwasher basket and place on the top rack of the dishwasher.

4. After washing the nebulizer shake off any excess water.
5. Reattach the nebulizer pieces and tubing to the air compressor and turn on the compressor to dry the nebulizer quickly. **Make sure the nebulizer is completely dry before storing the nebulizer.**

Care and Cleaning of Nebulizer Equipment Every Other Treatment Day

Disinfect and sterilize your nebulizer also.

Boiling Water

1. Wash your hands.
2. Take the nebulizer apart.
3. Put all the parts except the tubing and mask in boiling water for 10 minutes.
4. After boiling the nebulizer shake off any excess water and allow to cool.
5. Reattach the nebulizer pieces and tubing to the air compressor and turn on the compressor to dry the nebulizer quickly. **Make sure the nebulizer is completely dry before storing the nebulizer.**

The tubing is replaced every two weeks because it is difficult to clean and dry properly.

Care of the Compressor

Check the manufacturer's instructions for cleaning and care of other compressor you are using.

Note: This information is provided to you as an educational service of National Jewish Health.

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