What are mucus clearance devices?

Certain lung conditions lead to a lot of mucus in the airways.

If the mucus stays in the airways, it can make it hard to breathe. It can also lead to infection in the lungs.

Mucus clearances devices are small and handheld. They help to loosen mucus in the airways so you can cough it out.

Common types of mucus clearance devices include the Aerobika® and Acapella®.

How do mucus clearance devices work?

These devices work in two ways:

When you breathe into it, it causes vibrations that loosen the mucus in your airways.

When you breathe in, it provides resistance which keeps your airways open.

Both of these features help to open your airways and make it easier to cough mucus out.
How do I use the Aerobika®?

1. Look at the device for any defects.

2. Choose the preferred position of the device.

3. Put the mouthpiece in your mouth. Make a tight seal around it with your lips. Do not block the opening in the back of the device with your hand.

4. Breathe in through the device taking a deeper than normal breath. Hold your breath for 2-3 seconds.

5. Breathe out actively but not forcefully through the device. Breathe out 3 to 4 times longer than when you breathe in. Keep your cheeks flat and do not let them vibrate when you are breathing. Keep your lips sealed tightly around the mouthpiece.

6. Try not to cough until you finish.

7. After at least 10 breaths, perform 2 to 3 huff coughs to clear the mucus from your lungs.

8. Repeat steps 3-7 for 10-20 breaths or as directed by your healthcare provider.
How do I clean the Aerobika®?

The Aerobika® has 4 parts for cleaning: the mouthpiece, top case, the bottom case, and valve cartridge.

1. Take apart the device. Press the tabs on the side and gently pull up on the top case until the two parts separate.
2. Remove the valve cartridge. Do not take this piece apart.
3. Remove the mouthpiece. Grip it firmly. Turn it slightly while pulling it away from the device.
4. The device can be washed with soap and water or in the dishwasher.
   - **Washing in soap and water**: Put the four parts in lukewarm, clean water with liquid dish detergent. Let soak for 15 minutes. Rinse in warm water. Shake to remove the excess water. Let the parts air dry fully before putting the device back together.
   - **Dishwasher**: Place the parts in a basket on the top rack. Wash in a normal wash cycle with dishwasher detergent. Use a rinse aid like Jet Dry. Once the dishwasher stops, remove any excess water on the device. Let the parts air dry fully before putting the device back together. **DO NOT WASH WITH VERY DIRTY DISHES.**
5. Put the device back together by inserting the valve cartridge in to the bottom case. Attach the top case with the bottom case until you hear the attachment tabs click. Insert the mouthpiece.

**TIP:** Tap water can cause mineral build-up on your device. If you see this, take the device apart and put in 1 cup vinegar 1 cup water. Let soak for 1 hour. Then wash as normal.
How do I disinfect the Aerobika®?

The Aerobika® should be disinfected weekly. There are different ways to do this. Refer to your package insert for complete instructions on each method.

1. Boiling in water: Place a small rack in the pot to prevent the plastic device from touching the bottom of the pot. Place the four parts in boiling water. Let boil for 5 minutes. Remove the parts from the water. Allow them to cool and dry fully before putting the device back together.

2. Soaking in Alcohol (70%): Soak the four parts in 70% isopropyl alcohol for 5 minutes. Rinse well. Allow them to air dry fully before putting the device back together.

3. Soaking in Hydrogen Peroxide (3%): Soak the four parts in 3% hydrogen peroxide for 30 minutes. Rinse well. Allow them to air dry fully before putting the device back together.

Caution: Failure to follow the cleaning or disinfection directions may cause the device to not work properly.
How can I clear mucus from my lungs?

COPD can lead to extra mucus in the lungs. When extra mucus builds up, it can make it harder to breathe. This also increases the risk for lung infections.

Coughing is your body’s way of removing mucus from your lungs. Coughing can tire you out. Being tired can make it harder for you to clear the mucus.

Deep coughing

“Hacking” mucus out of your lungs can tire you out. This technique helps you to clear mucus from your lungs more easily.

Steps

1. Do pursed-lip breathing a few times to slow down your breathing.

2. Take a deep breath (almost fill up your lungs).

3. Hold your breath while counting “1, 2, 3, 4”.

4. Then tilt your chin up and open your lips.

5. Use your belly muscles to cough hard once.

6. Spit out the mucus.
What is huff coughing?

Huff coughing is a gentle way to clear the mucus from your lungs. Huff coughing lets air out steadily while you make a “huff” sound. This is the sound you make when you fog up a mirror. This forces the air and mucus from the small airways and can make your cough more effective.

How do I huff cough?

1. In a sitting position tilt your chin slightly upward.
2. Take 3 to 5 slow, deep breaths. Breathe in through your nose and out through pursed lips. As you breathe in, push your belly out.
3. Take a deep breath in and hold it for 1 to 3 seconds.
4. With your mouth open, use your belly to push the air out in a short, quick burst. Make a “huff” sound with each breath.
5. Repeat 2 or 3 times.
6. Cough when you feel the mucus in your airways.
7. Rest between huff coughs. Take many, slow, deep breaths before doing the huff cough again.