



Montreal Chest Institute

Chest Physiotherapy //

How to use a Positive Expiratory Pressure (PEP) device

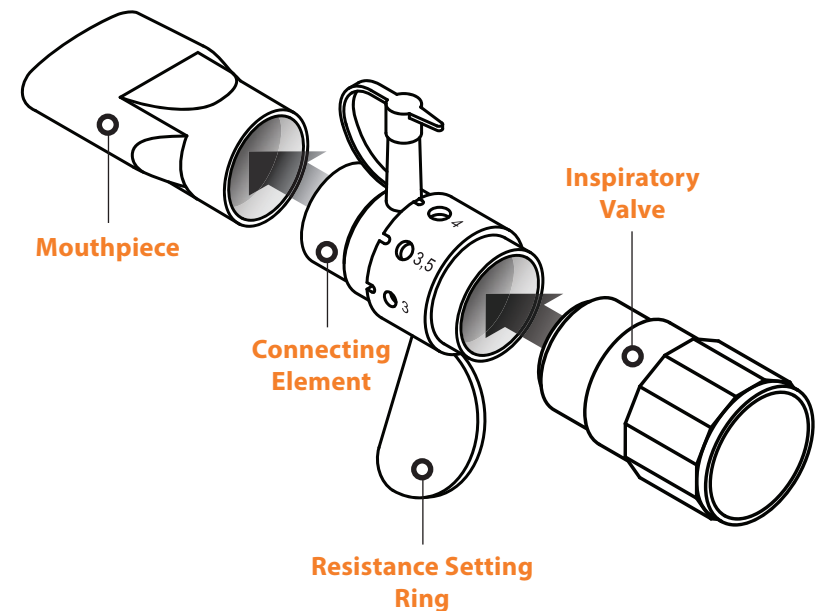


This pamphlet explains how to use and clean your chest physiotherapy device.

// What is a PEP device?

PEP stands for Positive Expiratory Pressure. It is a treatment that helps to get rid of mucus in the lungs. It can help to open parts of your lungs that have closed up or prevent this from happening.

PEP therapy or treatment is done by breathing into a small handheld device, called TheraPEP™ or PariPEP™.



The PEP device creates positive pressure in the lungs and keeps them open better. The air flowing through the PEP device helps move the mucus from the smaller, distal airways into the larger airway, making it easier to bring up and cough out. A huffing maneuver (*see page 3*) afterward will help move the mucus out of the airways.

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// How to use the PEP device?

Before starting, wash your hands with soap and warm water, or use anti-bacterial hand gel, to reduce the risk of infection. Make sure that the dial is set to the correct range on your PEP device. This is usually set based on assessment by your healthcare provider.

Start by sitting, with your elbows resting on a table, or sit upright, then follow the steps described below:

1. Put the mouthpiece in your mouth, making a tight seal around it. If you are using a PEP device with a mask, put the mask tightly over your nose and mouth.
2. Breathe in through the PEP device by filling your belly with air ((deep breath coming from the belly, using the diaphragm muscle). The breath should be slightly larger than a normal one, however be careful not to hyperventilate by taking too many deep breaths.
3. Hold your breath for about 3 seconds.
4. Breathe out through the PEP device. You should push a bit when breathing out, but it should not feel forced
During the time that you are breathing out, you will feel resistance. This is positive pressure in your airways. This resistance should be between 10-20 cm H₂O throughout most of the expiration. This resistance level is measured by your healthcare provider and set using the dial around the device.
5. Repeat steps 2 to 4 for 15 breaths, or approximately 2 minutes.

5. Repeat the above steps (steps 2 to 4) for 15 breaths, or approximately 2 minutes.

6. Take the PEP device out of your mouth and put it aside. Do a "huff maneuver" or forced expiration. Repeat the huff procedure 2-3 times.

The huffing maneuver

- 1- Take a breath in a little deeper than usual.
2. Use your abdominal (belly) muscles to forcefully breathe out 3 times. Don't inhale (breathe in) in between these three efforts. To do this well, think about wanting to fog up a mirror or a window, it is important not to breathe in between the expiration
3. After this, resume breathing normally.

7. Cough. Try to bring the mucus up and out of your airways.

8. Try to spit the mucus out and try not to swallow it.

9. You can repeat the coughing as needed.

10. Relax with slow breaths.

Repeat the above steps (steps 1 to 10) for 6 cycles, or for a total duration of 15 to 20 minutes.

You can use your PEP device as often as you need during the day. However, to avoid getting too tired, limit the length of your PEP sessions to a maximum of 20 minutes each.



Pause for a few seconds between breaths. If you feel dizzy or get a headache while using the PEP device, you may be breathing too fast.

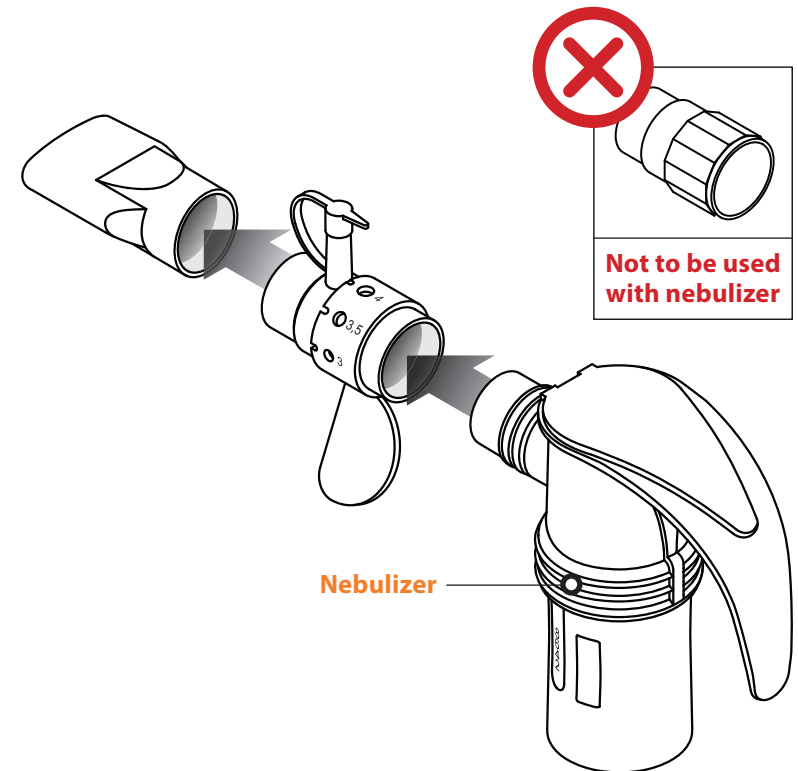
If you get these symptoms, stop using the PEP device for a few minutes and breathe as normal. When you begin to use the PEP device again, take more time between breaths.

// How to use the PEP device with a nebulizer?

A nebulizer is a machine that changes a liquid medication into a mist that you can breathe in.

Your PEP device can be combined with certain aerosolized treatment, such as hypertonic saline or inhaled antibiotics, to increase the efficacy of the treatments. This allows you to combine both treatments to save time.

To attach your nebulizer to the PEP device, follow the set-up picture below.



// How to maintain the PEP device?

CLEANING THE PEP DEVICE

The PEP device should be cleaned after each use.

1. Take the PEP device apart and soak all the pieces except the tube and the manometer (small blue indicator column) in warm soapy water for five minutes.

Please note that not all PEP devices come with a small manometer, only the TheraPEP™ does.

2. Rinse all of the parts with hot tap water.
3. Leave the pieces to air dry on a paper towel or clean cloth.

DISINFECTING THE PEP DEVICE

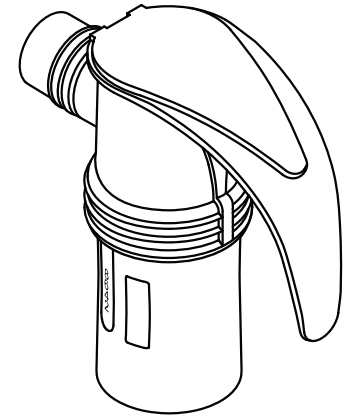
You should sterilize your device with alcohol twice weekly or more often if it is dirty. You can buy 70% isopropyl alcohol at your pharmacy without a prescription.

1. Take the PEP device apart and soak all the pieces except the tubing and the manometer in enough isopropyl alcohol to fully cover the device for five minutes.
2. Remove the PEP device from the alcohol and rinse with sterile water. Do not use water from the faucet, bottled or distilled water.

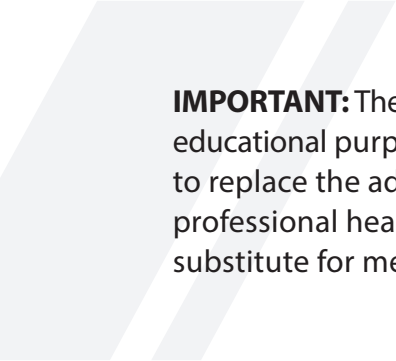
You can make water sterile by boiling it for 5 minutes and allowing it to cool. Use this water once, then throw it out
3. Place all of the parts on a paper towel or clean cloth to air dry.

CLEANING YOUR NEBULIZER

If you are using the PEP device with a nebulizer, please clean the nebulizer at the same time as you clean your PEP device, using the same procedure as the device.



// Notes



IMPORTANT: The information provided is for educational purposes only. It is not intended to replace the advice or instruction of a professional healthcare practitioner or to substitute for medical care.

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