Cough Assist Machine

Cough Assist Machine copies a natural cough by slowly sending a large volume of air to your lungs, like a normal deep breath, when you breathe in (positive pressure). Then it quickly reverses the flow of air and mucus (negative pressure). Cough Machine makes your cough more effective. Your airways stay clear, reducing the chance of respiratory infections.

Getting started
We will help you to set up the machine and teach you to make needed changes. You may begin with lower pressures to become comfortable with the therapy. You should know that the lower pressures may not be effective.

A cough machine breath is made up of an inhalate time, an exhale time, and a pause time. 4 sets of 5 breaths is a usual treatment. You may do more or less cough/sets, depending on how well you are clearing secretions. Between each sequence you may rest for 20-30 seconds or more. This resting time will give the caretaker time to remove any mucus in the mouth and nose.

How do I adjust the phases of breathing?
Each phase of breathing should be set so that you can get the air in and out of your lungs with comfort, and then pause to keep coughing if needed.
1. Set the inhale time knob at 1 second
2. Set the exhale time knob at 1 second
3. Set the pause time knob at 1-2 seconds
4. Set the inhale flow knob at the 3 squiggly arrows (Full flow)

How do I use the Cough Assist Machine?
- Before beginning the treatment, wash your hands with soap and warm water, or use anti-bacterial hand gel, to reduce the risk of infection.
- Check to make sure that the inspiratory (positive) and the expiratory (negative) pressures are set. Start at +20/-20 and gradually increase to +40/-40, or as ordered by your doctor or nurse practitioner.
- Test the machine by removing the face mask or mouthpiece from the tubing and hold the tubing firmly against a flat surface.
- Turn on the machine.
- Set the manual/auto switch to auto. The unit will then cycle from the positive to negative pressure and back to zero for the pause on its own.
- Put the mask or mouthpiece tightly on your face or in your mouth so that no air leaks out. You may need to use a nose clip to prevent air leakage, if using a mouthpiece.
- As you breathe in, the machine will help by giving a big breath of air. This breath will end at the time set on your machine.
- As you breathe out, the machine will help by sucking the air and mucus out. This will help your cough be much stronger and it will help to remove mucus.
- Keep taking a set of 4-6 breaths from the cough machine and then rest for 20-30 seconds and cough out any mucus that may have loosened up.
A well-fitting, soft seal mask is important so there is less leakage. Some patients may need to have their head supported from behind during breaths to help keep their airway open. In order to be effective, firm pressure may be needed.

- If you have a cuffed tracheostomy tube, inflate the cuff during the treatment.

How do I change the pressures?
You may change the pressures with help from your provider.

- Remove the face mask or mouthpiece and hold the tubing firmly against a tight surface.
- Turn on the machine.
- Turn the pressure knob to reach the desired inhale and exhale pressures. Turn the inhale pressure knob to fine tune the inhale pressure set.
- If you cannot tolerate the pressures, and need to lower the pressures at any time, you should tell your doctor or nurse.

How do I adjust the flow?
If you feel there is too much air flow coming from the machine when you take a breath in, you can turn down the inhale flow.

- Set the inhale flow knob at one squiggly arrow (reduced flow)

How do I clean my equipment?
To clean the mouthpiece, mask or trach adapter
The mouthpiece must be cleaned after every treatment. If using a mask, clean at least two times a week or more often if visibly soiled.

- Wash your hands.
- Take off the mouthpiece and wash in dish soap (Ivory®, Joy®, etc.) and hot water. Do not wash with your dishes.

- Rinse with hot tap water
- Air dry on a clean towel until your next treatment.
- The bacteria filter on the machine cannot be washed. It should be replaced when blocked with mucus or trapped moisture.
- Unplug device and wipe outside surface using one of the following cleaners: A clean cloth dampened with water and mild detergent or 70% Isopropyl alcohol
- Replace the mask if it becomes torn or if you can no longer keep a good seal.

Controls on the Cough Assist Machine

- **Power Switch:** ‘I’ symbol means ON, ‘O’ symbol means OFF
- **Inhale:** sets how long the positive pressure will be blowing air into the lungs.
- **Exhale:** sets how long the negative pressure will be sucking the air out of the lungs.
- **Pause:** sets the time between the last negative pressure and next positive pressure.
- **Inhale Flow:** sets the amount of flow needed during breathing in. There are two settings: FULL or REDUCED. If REDUCED flow is used, there is less pressure.

- **Inhale pressure/Pressure:** turn to set inhale pressures
- **Manual/Auto:** controls whether you want the machine to switch between pressures on its own or you want to do it by hand.
- **Manual Control:** allows you to toggle between inhale and exhale when you are using the manual setting.
If you have questions about your treatment, please call your provider.

If you have questions about the machine, contact your equipment provider.

The Spanish version of this *Health Facts for You* is #6366

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person’s health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright © 11/2016. University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing. HF#5306