

Patient Info

Lung Volume Recruitment with Medical Breathing Bag (LVR bag)

What is an LVR bag?

LVR stands for lung volume recruitment. LVR using a hand-held medical breathing bag is a tool to help you stack one breath on top of the other until your lungs feel full. LVR with the breathing bag may be helpful if you have a neuromuscular disease or spinal cord injury with weak breathing muscles. Daily use of the LVR bag will increase lung air volume beyond what you can take in on your own to improve chest expansion and clear mucus from your lungs.

You must be alert when using the LVR bag.

Why would you use the LVR bag?

Routine use of the LVR bag will:

- + Fill your lungs with air more than what you can do on your own;
- + Start a strong cough to help clear or prevent mucus from collecting in your lungs;
- + Improve your chest movement and stretching;
- + Prevent small areas of your lung from collapsing; and
- + Increase your speech volume.

When should you use the LVR bag?

You can use the LVR bag anytime, and at least 4 times per day. Stretch your lungs 3-5 times to a maximum breath every time you are breath-stacking. Repeat the exercise more often if mucus is present, but no more than every 10 minutes to avoid dizziness.

You can combine LVR bag with a manually assisted cough (MAC). MAC is a technique using forceful arms to assist your cough. MAC is applied when your lungs feel full and usually, will further increase the strength of your cough. LVR bag with MAC it is best to do before meals and at bedtime to avoid the flowing back of liquid from your stomach. The LVR bag with MAC can be useful when you have a chest infection. Ask your doctor if you are a candidate for the MAC technique.

How do you use the LVR bag?

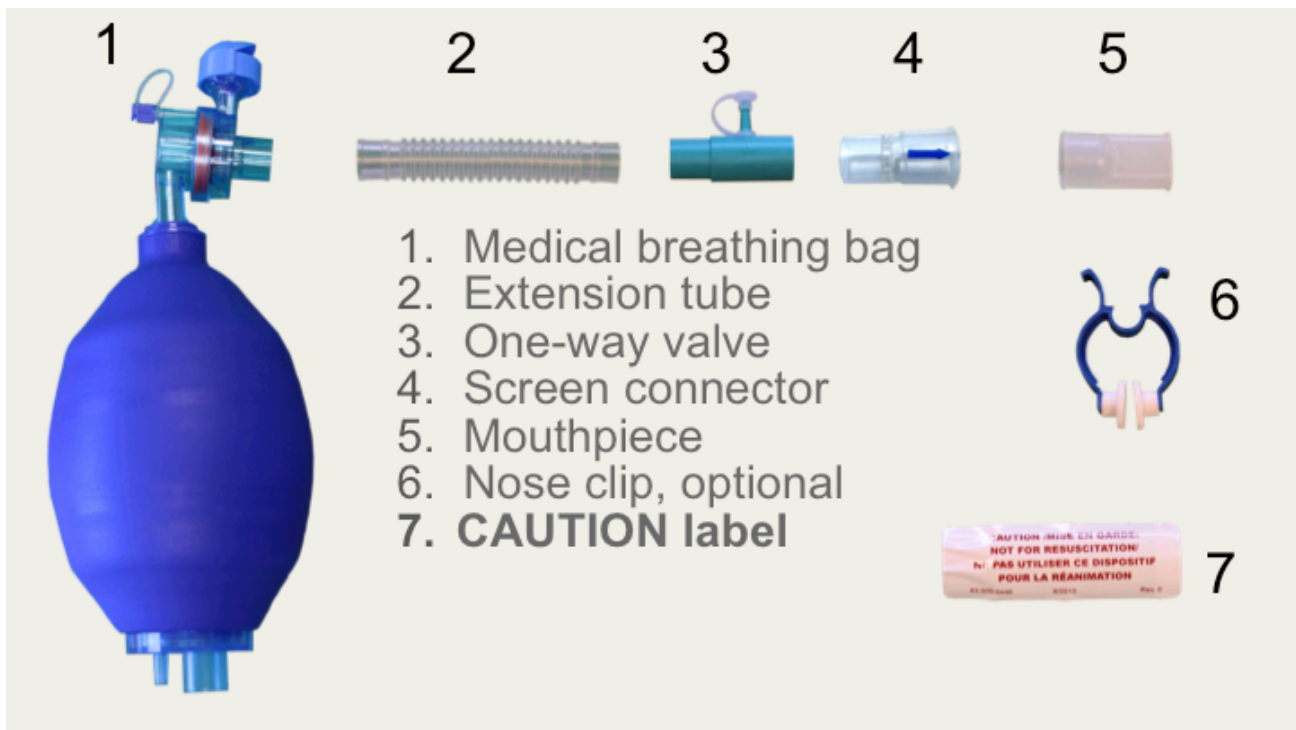
1. Check that all the LVR bag parts fit tightly.
2. You can use the LVR bag when sitting or lying on your back. Always make sure you support your head and neck if someone is also helping you cough.
3. If someone is helping you, agree on a signal so you can let your helper know when your lungs feel full with air volume, e.g., blinking or raising your hand.
4. Put on the nose clips. Take a deep breath, and put your lips around the mouthpiece to prevent air leaks.

5. Breathe "in" through the mouthpiece as you gently squeeze the bag. Breathe again through the mouthpiece as you gently squeeze the bag stacking one breath on top of the other. Continue breath-stacking until your lungs feel full. If someone is helping you, give the signal that your lungs are full. You should feel a gentle stretch in your chest. Listen for air leaks between the mouthpiece and your mouth.
6. Once your lungs are full, take the mouthpiece out, hold your breath 3 to 5 seconds and then let the air out gently.
7. If you have mucus, cough strongly or have someone manually assist your cough.
8. Repeat 3 to 5 times.

What are some helpful LVR tips?

- + Once you use the LVR bag daily, you may not need the nose clips.
- + If you always have air leaks at the side of the mouth, try a different mouthpiece.
- + Using the LVR bag takes practice, so don't give up!

What are the parts of the LVR bag?



Visit our website and watch a video demonstration

www.canventottawa.ca