



Breathing exercises after surgery

Enhanced recovery after surgery program
(RAAC)

TO BETTER GUIDE YOU

After surgery, you need to do deep breathing and coughing exercises to prevent lung problems.

This fact sheet explains the benefits of these exercises and how to do them correctly.

Why are breathing exercises important?

These exercises allow you to breathe more easily and clear out secretions (mucus).

They also help prevent certain postoperative complications, such as:

- Deflation (collapse) of the alveoli in the lungs (atelectasis);
- Lung infection (pneumonia).

It is also important to start moving and walking as soon as possible, as this will help you breathe better.

What else can increase the risk of respiratory complications after surgery?

Complications can be caused by:

- Breathing less deeply due to pain;
- Smoking;
- Moving less;
- Coughing less productively due to pain.



Important

Take your pain medication before doing your exercises; this will help ensure you do the exercises properly.

When should I do my deep breathing and coughing exercises?

You should start your exercises as soon as you wake up from surgery unless advised otherwise. You must continue to do them until you return home.

Frequency: At least once every hour.

How should I do my breathing exercises?

The nurse or respiratory therapist will show you how to do them. Here's a reminder of the steps to follow. The exercises can be done **with or without a spirometer**. A spirometer is a device that visibly measures air intake. It should be given to you by a nurse during your stay, but don't hesitate to ask for one if not.

**Do the exercises at your own pace and take breaks in between if you find it hard.
This will help you maintain proper technique.**

Without a spirometer

1. Sit on a bed or a chair.
2. Place one hand on your stomach and the other hand on your chest. Close your mouth.
3. Take a slow, deep breath in through your nose. Your abdomen should expand enough to move the hand resting on it.
4. Hold your breath for three seconds.
5. Exhale slowly through your mouth as if blowing out a candle, until you can't exhale anymore.
6. After 15 deep breaths, cough (see the box below).

How to do the coughing exercise

- Sit on a bed or a chair.
- To lessen the pain and protect your wound, hold a pillow or a towel against the wound with both arms.
- Breathe in slowly. Hold your breath and cough.
- If you have secretions, spit them out.
- If coughing hurts, ask for pain medication.

With a spirometer

A spirometer will allow you to see your progress.

1. Sit on a bed or a chair.
2. Hold the spirometer upright in front of you. Ensure that the tube is connected on the side marked "patient side."
3. Exhale through your mouth, until you can't exhale anymore.
4. Close your lips tightly around the mouthpiece.
5. Take a slow, deep breath in through your mouth. The ball inside should start to rise. Try to keep the ball floating for two or three seconds.
6. Exhale normally through your mouth.
7. After 15 deep breaths, cough (see the box).

Different intensity levels with the spirometer

When you can breathe in several times and consistently keep the ball in the air for more than three seconds, move to the next level. To do so, turn the dial to a higher number.





What are the risks associated with these exercises?

Many people worry that their wound will open while doing these exercises. Rest assured, that won't happen; your incision has been securely closed.

Who should I contact for help or questions?

If you have any questions, please contact a member of your care team.

Text adapted from *Les exercices respiratoires après une opération* produced by the Centre de littératie en santé du CHUM: chumontreal.gc.ca/centre-litteratie-sante.