

Post-operative pneumonia prevention

After surgery, there is a risk of developing lung problems such as pneumonia. You move less after having surgery, which can limit the amount of oxygen, and how deeply you breathe. Your risk can increase if you have a history of smoking, or if you have asthma or chronic obstructive pulmonary disease (COPD). In addition, anesthesia medications will decrease or weaken your breathing for a short time.

Coughing after surgery helps prevent pneumonia by making it easier for you to breathe deep. It expands the lungs and clears mucus that may build up when you are under anesthesia. Coughing is your body's natural reaction to remove excess mucus, which can lead to pneumonia if it lingers in the lungs for too long. With some procedures, such as chest or abdominal surgeries, coughing can be painful, and it can be helpful for you to brace your incision when you cough.



For the first two to three days after your procedure, try to sit up, breathe deep and cough every hour, if advised by your care team. It's a good idea to continue these exercises until you return to your normal activities.

Deep breathing exercises

Every hour, take 10 deep breaths as described below:

- Find a comfortable position.
- Take a deep breath through your nose, feeling your chest expand fully.
- Hold the breath for five seconds.
- Slowly breathe out through pursed lips, as if you were blowing out a candle.
- Rest between breaths if you get lightheaded.

Coughing exercises

- Find a comfortable position.
- Take a few deep breaths to relax, feeling your chest fully expand.
- Cough firmly, and focus on clearing all the air out of your chest.
- Use a tissue to clear any mucus in your mouth.
- Repeat several times, until there is no mucus coming up.

If you experience any of the following signs or symptoms of pneumonia, please seek medical attention immediately:

- Chest pain when you breathe or cough
- Confusion or changes in mental awareness (adults age 65 and older)
- Cough, which may produce phlegm
- Fatigue
- Fever, sweating and shaking (chills)
- Lower than normal body temperature (adults older than age 65 and patients with weak immune systems)
- Shortness of breath

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