



Nursing instructions for deep breathing and coughing exercise

Created in 2004.03
Revised in 2019.10
Reviewed in 2021.01
English version in 2021.01

一、Deep breathing exercise

(一) Why do we need to do deep breathing exercise?

Pulmonary atelectasis may occur in over 95% of patients that undergo general anesthesia. Deep breathing exercise is important in aiding lung dilatation, increasing the lungs' vital capacity, lung ventilation, improving sputum elimination, and preventing comorbidities such as: pulmonary atelectasis, pneumonia, bronchitis, pleuritis, pulmonary embolism etc.

(二) When to start deep breathing exercise?

You can start exercises right after waking up from general anesthesia, 5-10 deep breaths each time, for 5 times a day (25-50 deep breaths a day).

(三) How long do I need to do deep breathing exercise?

Starting from operation day, until 5 days post-op.

Abdominal Breathing:

(non-abdominal surgery)

1. Use a pillow to raise upper body to 45-60degrees, or sit on the edge of the bed.
2. Bend the knee slightly and relax the abdomen.



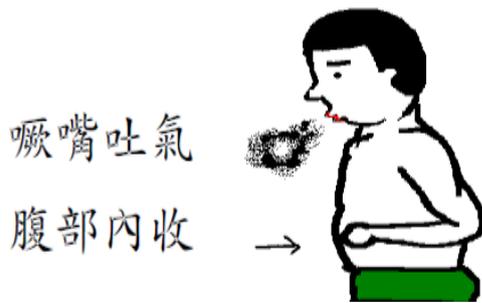
Chest Breathing:

(abdominal surgery)

1. Use a pillow to raise upper body to 45-60degrees, or sit on the edge of the bed.
2. Bend the knee slightly and relax the abdomen.



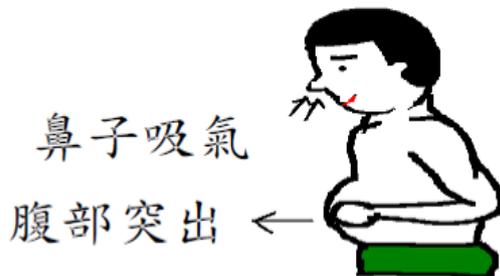
3. Place your hand above your navel, pucker your lips, exhale until your stomach is flat.



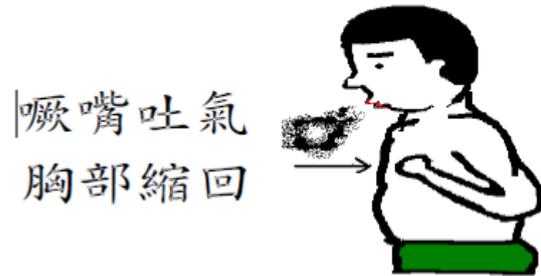
3. Place your hand on the sides of your chest, inhale slowly through your nose until you feel your ribs expanding, then hold your breath for 3 seconds.



4. Inhale deeply through your nose until your upper abdomen expands, hold your breath for 3 seconds, then exhale.



4. Pucker your lips, exhale slowly, you will feel your chest adduction.



二、Coughing exercise

(一) Why do we need to do coughing exercise?

Coughing exercises are important to reduce breathing obstruction and breathing difficulties. It also aids in removing sputum and maintaining optimal breathing.

(二) When to start coughing exercise?

After waking up from general anesthesia, you can start coughing exercise in conjunction with deep breathing exercise.

(三)How to do coughing exercise?

1. Sit on the bed or the edge of the bed, lean your upper body forward slightly, hold your hands together with fingers intertwined, place the palm of your hands or a pillow firmly on your chest or abdominal wound (as shown in the photos below), to reduce pain from coughing vibrations in the wound area.
2. Do deep breathing exercise twice.
3. During inhalation after the third time deep breathing, on exhalation, open your mouth and use abdominal muscle to cough two to three times consecutively, then return to normal position.



Please contact the nursing staff if you have any questions, we are happy to provide any services to you. If you have any questions after discharge, you can contact MacKay Memorial Hospital Health Consultation Line – Taipei Main Branch (02)25713760, Hsinchu Branch (03)5745098, Taitung Branch (08)9310150 transfer 311, Consultation time: Monday to Friday 9:00am-12:00pm, 2:00pm – 5:00pm.

May God bless you