

# PHYSIOTHERAPY

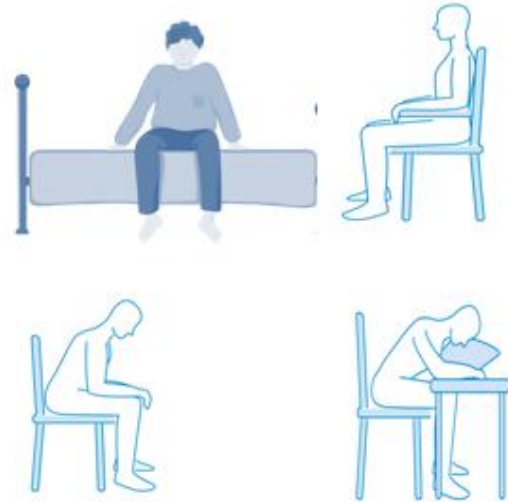
## Education for patients with pneumonia on the importance of upright position and breathing exercises

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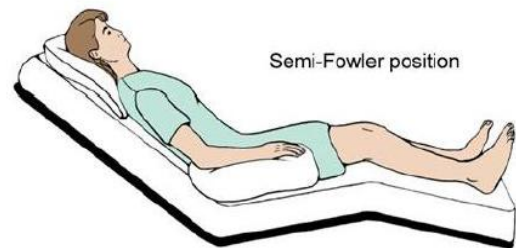
### Upright position

If you have pneumonia it is recommended to mobilize to an upright position, sitting on the edge of the bed or in a chair, for at least 20 minutes, 2x a day or more often. The position will improve breathing and facilitate expectoration of mucus.

If you are experiencing shortness of breath or dyspnoea, forward leaning with arm support during sitting can help



If you cannot sit on the edge of the bed or in a chair, high sitting position in bed 30-40° is recommended. Lift up the bed under the knees to prevent down sliding in bed. It can be helpful to have pillows for arm support. Note that this position should not replace an upright sitting position.



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### Breathing techniques

It is recommended to perform breathing techniques every 1-2 hours during the day. If bronchodilators are used, please perform the breathing technique 10 minutes after inhalation. Breathing exercises are more effective when performed in an **upright position**.

Relax the neck muscles, shoulders and upper chest during breathing and rest your arms on your knees, on a pillow or in your lap.

#### A. Breathing control

Breathing control is a slow and relaxed breathing technique, using the lower chest and diaphragm with minimal effort expended. The diaphragm is the primary muscle during inspiration and is located below the lungs. It contracts during inspiration and air flows into the lungs. During shortness of breath (dyspnoea), muscles in the shoulders and upper chest are wrongly used. This results in asynchronous breathing which again results in a more shallow breathing and increased dyspnoea.

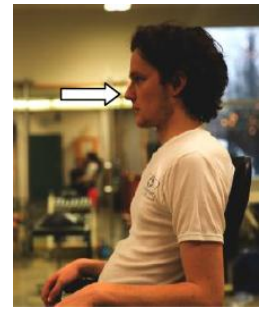
**Inspiration:**

Breathe in slowly through the nose (with mouth closed) and count in your mind “one, two” during inspiration. Do not take a deep breath.

**Expiration:**

Purse your lips together and breathe out through your mouth (like you are whistling, but without sound). Count in your mind “one, two, three, four” during expiration.

Please avoid holding your breath between inspiration and expiration

**B. Thoracic expansion exercises**

This breathing technique is a deep breathing exercise with emphasis on a slow, controlled inspiration through the nose. If you have hyperinflation in lungs due to chronic obstructive lung disease, it is not recommended to perform this breathing exercise.

**Inspiration:** Breathe in slowly through the nose to full lung expansion. Hold your breath for 3 seconds if you can

**Expiration:** Breathe out slowly through the mouth

**C. Forced expiratory technique (huffing)**

Huffing is used to clear the airways. Contract your abdomen muscles and blow the air out forcefully with open mouth and glottis. Please do NOT huff or cough close to other people, turn your head, hold a paper over the mouth or cough into your elbow.

**One round of breathing exercises is performed in the following way**

**1. Breathing control**, 5 breaths

**2. Thoracic expansion exercises**, 2-3 breaths

**3. Breathing control**, 5 breaths

**4. Forced expiration technique (huffing)**, 1-2 times (or a normal cough). Please do NOT huff or cough close to other people, turn your head, hold a paper over the mouth or cough into your elbow.

**5. Breathing control**, 5 breaths. This step is very important after huffing/coughing to prevent airway constriction.