



REHABILITATION CENTRE  
*Celebrating Recovery*

# HOW TO MANAGE BREATHLESSNESS AND SECRETION



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# How To Manage Breathlessness and Secretion

## Strategies To Manage Shortness Of Breath



Many daily tasks such as walking, getting dressed or performing activities around the house may make you feel breathless. It is normal for you to feel frightened or anxious during these episodes of shortness of breath. When you learn how to control your breathing consciously, you will be able to control your feeling of breathlessness and carry out your daily tasks more confidently.

Here are some breathing techniques and relaxation positions you can use to manage your breathlessness.

### 1. Breathing Control with Pursed Lip Breathing



This technique is used to help to reduce the effort of breathing by getting your main muscle involved in breathing (diaphragm) to work more efficiently.



# How To Manage Breathlessness and Secretion

## Breathing Control with Pursed Lip Breathing (Continued)

- Sit comfortably with good posture or lie on your back with 45-degree inclination using pillows.
- Relax your upper chest and shoulder. To ensure this, place one hand on your upper chest.
- Place the other hand in the middle of your stomach to feel the movement of your diaphragm.
- Breathe in through your nose, feeling your stomach relax and moving forward against your hand.
- Breathe out slowly through your mouth pursing your lips as if you are blowing a candle.
- Blow out only as long as it's comfortable – **do not** force yourself to empty your lungs.



Once you have learned this technique, you can use it in various positions or while performing activities to control your breathing and reduce breathlessness.

# How To Manage Breathlessness and Secretion

## 2. Blow As You Go

This technique is used when you need to make an effort to perform a task that makes you breathless. Use it with pursed lip breathing.

Breathe in before you need to exert and breathe out as you exert to perform a task.

e.g., if you need to lift a box from the countertop, take a breath in before you lift it and breathe out through pursed lips as you lift it.



## 3. Paced Breathing

This technique is useful when you are doing activities like walking or stair climbing.

You pace your steps to your breathing. e.g., take one step as you breathe in and take one / two steps as you breathe out. Purse your lips to breathe out.



# How To Manage Breathlessness and Secretion

## Strategies To Manage Shortness Of Breath



### Body Positioning

Relaxation positions are used to recover from breathlessness.

When you are feeling breathless, use one of these positions to practice breathing control and pursed lip breathing.



- Sit leaning forward with your elbows resting on your knees.
- For better comfort, you may place a pillow on your thighs.
- Perform diaphragmatic breathing.



- Sit leaning forward with your elbows resting on a table.
- You may put a few pillows on the table to rest your head on.
- Perform diaphragmatic breathing.

# How To Manage Breathlessness and Secretion



- Lie on your side with a few pillows under your head and shoulder.
- You may bend your hips and knees slightly.
- Place a pillow between both knees.
- Perform diaphragmatic breathing.



- Lean forward resting elbows on wall, windowsill, a railing, or a countertop.
- If you are using a walking frame, you may rest your elbow on top of the frame.
- Perform diaphragmatic breathing.



- Lean back or sideways against a wall with your feet slightly apart to maintain balance.
- You may let your arms hang loosely by your sides or rest them inside your pocket.
- Perform diaphragmatic breathing.

# How To Manage Breathlessness and Secretion

## Strategies To Manage Shortness Of Breath



### Other Useful Tips:

- Adjust the temperature in the room. Cooler temperatures reduce breathlessness.
- Air movement reduces the feeling of breathlessness. Sit close to widow or use a handheld, battery-operated fan near your face.
- Consider using a wheeled walker.
- Plan your day to pace your activities.
- Put items that you use often within reach.
- Practice relaxation.
- Engage in physical activity.



# How To Manage Breathlessness and Secretion

## Strategies To Manage Secretion



### What is Mucus?



Mucus is a normal, slippery substance secreted by many lining cells of the body including the respiratory tract. It is the body's first line of defense against inhaled dust, pollutants, allergens or germs. It is constantly being produced and cleared by the airways with the help of special cells lined with hair-like structures called cilia.

### What is Phlegm/ Sputum?



We normally do not notice the mucus unless its production is increased, or its quality has changed as it may happen in some illnesses. These excessive and thick secretions are also known as **phlegm or sputum**. When present in excessive amounts it can clog the airways. It is usually expelled by coughing.

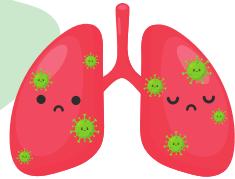
Ineffective secretion clearance may be a problem for you or your loved ones due to weakness or pain. This can lead to significant discomfort, cough, recurrent infections, and breathlessness.

# How To Manage Breathlessness and Secretion

## Strategies To Manage Secretion



**What can be done to aid sputum clearance?**



There are certain things you can do to help clear the sputum from the airways. Speak to your healthcare provider to understand what methods are the most suitable for you.

Some of the options include the following:

1. If the secretions are too thick to cough out, you can speak to your doctor or nurse to check if any medications might be helpful to loosen the phlegm and cough it out easily.
2. Steam inhalation/ saline nebulisation may help to loosen the secretions as well.
3. Your physiotherapist can assess and teach you one or more of the following secretion clearance methods that are suitable for you.
  - Chest techniques including postural drainage
  - Active Cycle of Breathing (ACBT)
  - Suctioning (Therapist will advise more on this if required)



# How To Manage Breathlessness and Secretion

## Strategies To Manage Secretion



### Postural Drainage

This refers to gravity-assisted mobilisation of the secretions from small airways to the bigger, central airways from where they can be coughed out or suctioned out. It involves positioning of the affected part of the lung in such a way that gravity assists with the drainage of the sputum.

Your Physiotherapist will be able to assess and teach you the most appropriate and comfortable positions for you to help clear secretions.

Postural drainage is used in combination with other techniques such as percussion (chest clapping), vibration and active cycle of breathing (ACBT). ***Your physiotherapist will advise and teach you which techniques are most suitable and SAFE to use for your individual condition and needs.*** \*



#### Precautions:



1. Do not perform postural drainage for at least an hour after a meal or NG feed.
2. Use nebuliser/ bronchodilators as advised by the healthcare provider prior to postural drainage.
3. Do not cough with your head below the chest level.
4. Follow the therapist's instructions and guidelines.

# How To Manage Breathlessness and Secretion

## Strategies To Manage Secretion

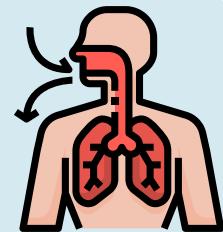


### Active Cycle of Breathing (ACBT)

Active cycle of breathing is a combination of breathing techniques that can be administered by the therapist, caregiver or self to clear sputum from the airways.

It has three main components:

1. Breathing control: helps to relax your airways
2. Chest expansion exercises: help to get air behind the mucus
3. Forced expiratory techniques: help to force the mucus out



#### 1. Breathing Control (BC)

Sit in a comfortable position or you could adopt a postural drainage position as advised by your therapist.

Relax your upper chest and shoulder. To ensure this, place one hand on your upper chest.

Place the other hand in the middle of your stomach to feel the movement of your diaphragm.

Breathe gently to relax your airways. Feel your stomach relax and move forward against your hand as you breathe in.

You can use pursed lip breathing technique while breathing out (breathe out slowly through your mouth, pursing your lips as if you are blowing a candle).

# How To Manage Breathlessness and Secretion

## 2. Chest Expansion Exercises (CEE)

- Take a long, slow, deep breath in, through your nose if you can.
- Try to keep your chest and shoulders relaxed. Breathe out gently and relaxed, like a sigh.
- You should do 3-5 deep breaths.
- Your therapist may teach you various hand placements on the chest wall to facilitate expansion of various segments of the lungs.
- You can try to hold your breath for about 2-3 seconds at the end of the breath in, before breathing out.
- Try the deep breathing exercises both with and without holding your breath and see which works best for you.

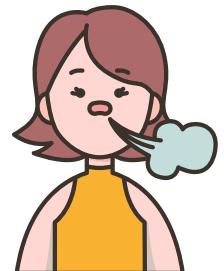


# How To Manage Breathlessness and Secretion

## 3. Forced Expiratory Techniques (FETs)

### ***Huffing***

- A ‘huff’ is exhaling through an open mouth and throat instead of coughing. It helps move sputum up your airways so that you can clear it in a controlled way.
- Use your tummy muscles to help you squeeze the air out, but do not force it so much that you cause wheezing or tightness in your chest.
- If you find it hard to keep your mouth and throat open when huffing, you may find it useful to use a small tube.
- There are 2 types of huffs which help to move sputum from different parts of the lungs.



#### ***The Small-long Huff***

- Take a small to medium breath in and then huff (squeeze) the air out until your lungs feel empty.
- This helps to move sputum from the lower part of your lungs.

#### ***The Big-short Huff***

- Take a deep breath in, starting from your belly, you may hold it for 2-3 seconds and then huff the air out quickly.
- This moves sputum from higher up in your chest, so use this huff when it feels ready to come out.

# How To Manage Breathlessness and Secretion

## 3. Forced Expiratory Techniques (FETs) -Continued

### **Coughing**

- You can also use cough to remove the sputum if 'huffing' does not clear sputum and/or it can easily be cleared by coughing.
- Avoid long bouts of coughing as it may make you feel tired and short of breath.

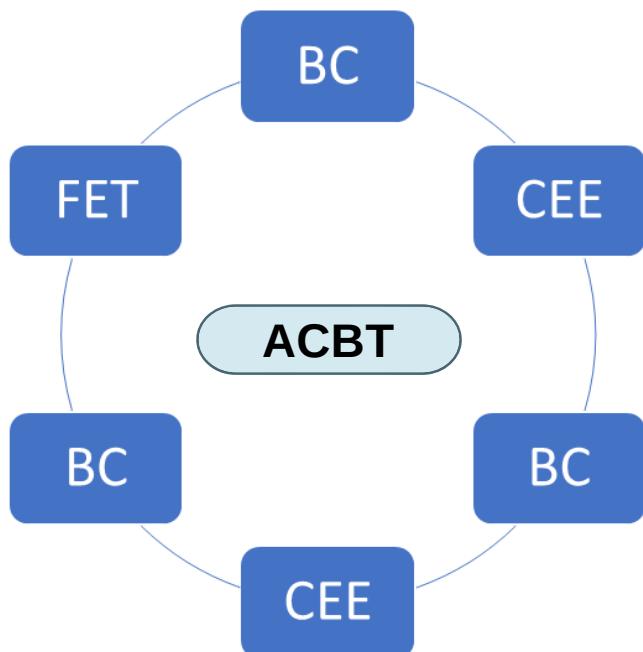


### **Putting the components together in a cycle:**

Your Physiotherapist will teach you how to put the different techniques together and adjust the cycle and the repetitions to suit your needs.

Once you have learned the ACBT, you will be able to perform it to help remove the sputum on your own.

Always check with your therapist if you have any queries.





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