

Therapy Department

Physiotherapy Advice Sheet for EZI-PEP

Introduction

People with a lung problem can produce more sputum than usual. It is important to do airway clearance exercises to remove sputum from your lungs. Taking a deep breath allows air to flow behind sputum and move it up the airways, where it can then be removed by coughing. This will prevent/ reduce the chances of a chest infection. Even if your lung problem is not producing sputum you may do in the future.

People with a lung problem may lack expansion and volume, and/ or have partial or complete areas of collapse. It is important to do breathing exercises to get air to the bottom of the lungs and re-expand lung tissue again.

In these instances your Physiotherapist may advise you to use an EZI-PEP device.

Additionally EZI-PEP can be helpful to clear secretions when you have been unable to with other exercises such as deep breathing and active cycle of breathing technique.

Using your EZI-PEP

Positive expiratory pressure (PEP) therapy involves breathing out against some resistance. This helps to splint airways open, improving lung volume and ventilation. It gets air into the lungs and behind sputum using extra (collateral) airways and removes it from the lungs. The PEP device comes in three parts; detachable mouthpiece, main body with a resistor dial and a detachable clear filter. Airway clearance using EZI-PEP consists of cycles of breathing through



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the mouthpiece device, along with coughing. You may also be taught a forced expiratory technique, also called a “huff”, to further mobilise your sputum. It is completed in the following way;

- Sit upright in bed or preferably in the chair with your back supported. Your Physiotherapist may advise you to lie on your side; this depends on the best position for secretion clearance and/ or lung volume for each individual
- Keep your shoulders, chest and arms relaxed
- Take a long, slow and deep breath in through your nose, breathing in fully, drawing air to the bottom of your lungs
- Place the mouthpiece in your mouth and seal your lips tightly around it to prevent air leak
- Breathe out through the mouthpiece. This should be a strong, slow, continuous breath, but not forced
- Do 6 breaths unless advised otherwise by your Physiotherapist. The number normally depends on your sputum volume, fatigue and breathlessness levels. The breaths should be repeated consecutively, without losing the seal of the mouthpiece
- Cough strongly from your stomach not your throat
- You should avoid long bouts of coughing as this can be very tiring and may make you feel breathless, or make your throat or chest sore or tight
- If you cough up some sputum, spit into a clean tissue and dispose of the tissue into a domestic waste bin
- Your Physiotherapist will advise you how often to do and when you can stop the exercise
- Your Physiotherapist will set the resistor setting, please do not alter this, but do inform a staff member if you have any difficulties and they will review
- The device can be cleaned in hot/ soapy water and left to air dry, avoid getting the filter wet

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- If the device looks dirty, tell your Physiotherapist so that it can be replaced

Forced Expiratory Technique also called a “Huff”

At the end of the breaths, your Physiotherapist may advise you to exhale forcefully through an open mouth instead of coughing. This is known as a huff. This manoeuvre helps loosen and move sputum from small (lower) airways to large (upper) airways in the lungs, causing it to ‘rumble’ or ‘rattle’, where it can then be removed, with or without coughing. Huffing is a useful alternative to coughing if you are in pain or tired, as it requires less effort due to the lower chest pressure generated. It is completed in the following way;

- Take a breath in through your nose
- Make your mouth into an ‘O’ shape and do a short sharp breath out. Imagine you are trying to steam up a mirror or your glasses
- Do not huff for so long that you force yourself to wheeze or uncontrollably cough
- You can repeat the huff to work the sputum higher if required
- If huffing alone does not clear your sputum, cough strongly from your stomach not your throat
- You should avoid long bouts of coughing as this can be very tiring and may make you feel breathless, or make your throat or chest sore or tight
- If you cough up some sputum, spit into a clean tissue and dispose of the tissue into a domestic waste bin

If you have any concerns or queries regarding your exercise then please ask a member of staff for advice. **You can contact the Therapy Department on 024 7696 6013.**

The Trust has access to interpreting and translation services. If you need this Information in another language or format please contact the Therapy Department on 024 7696 6013 and we will do our best to meet your needs.

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The Trust operates a smoke free policy.

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