

Cystic Fibrosis all about physiotherapy

How to use your PEP mask

A PEP mask is a hand-held device which supports airway clearance for children and adults.

With thanks to Nicky Murray and Fiona Cathcart, Royal Brompton Hospital, for preparing the information in this leaflet.

Patient name			
DOB		Hospital number	
Physiotherapy recommendations			
This leaflet was issued by: (Physiotherapist name and contact details)		This leaflet was issued on:	

How does the PEP mask work?

PEP stands for Positive Expiratory Pressure. When you breathe out through the mask, pressure builds up in your lungs, which helps to keep the airways open wide and also allows air to get behind the sputum so that it can be coughed up more easily.

How to use a PEP mask

Assembly

Assemble the device as shown by your physiotherapist. You'll notice a series of colour-coded resistors with your PEP mask – your physiotherapist will choose the correct sized resistor for you to ensure your physiotherapy is effective. Make sure the resistor (and the manometer, if you are using one) goes on the 'out' arm of the PEP mask.

You can record your resistor colour here: _____

Step by step (fill in the blanks with instructions from your physiotherapist):

1. Take any inhalers or nebulisers to prepare your airways before airway clearance (as prescribed).
2. Sit upright at a table. Using both hands, position the mask over your nose and mouth and lean forward so that your elbows are supported on the table. If you are advised to use an alternative position you can record it here:

3. Take a slightly bigger breath than usual in through your nose, hold your breath for _____ seconds and then breathe out through the PEP mask for _____ seconds. Aim for a pressure of _____ cmH₂O if you have a manometer connected.
4. Repeat _____ times with the mask on your face.
5. Remove the mask and huff or cough as the physiotherapist has taught you. Try to cough out any sputum rather than swallow it.
6. Repeat steps three to five _____ times or for _____ minutes or until your chest is clear as instructed by your physiotherapist. You should have a period of relaxed breathing between each cycle.
7. Take any inhalers or nebulisers after your airway clearance (as prescribed).

Always take your PEP mask with you if you are admitted to hospital. Treatment with a PEP mask should be initiated by your physiotherapist who will instruct you in the correct technique.

Remember to do daily physical exercise as well, as this will help you move sputum from deep within your lungs and is important for helping you to stay fit and healthy.

Precautions

Do not use your PEP mask if:

- your device appears to be damaged.
- you notice any blood in your sputum, suddenly have chest pain or become breathless. In this case stop using the PEP mask immediately and contact your CF team or seek emergency help.

The PEP mask may not be suitable if you have a history of the following:

- recent sinus surgery
- nose bleeds
- recurrent haemoptysis (coughing up blood)
- pneumothorax (collapsed lung)

If you're unsure about any of these, speak with your physiotherapist before carrying out the treatment. Your physiotherapist will review your technique with the PEP mask at regular intervals.

Proper cleaning of your device is essential, please ask your physiotherapist for their local guidelines or follow manufacturer's guidelines.



Please visit www.youtube.com/user/RBandH and search for **PEP** to watch a [video](#) of this technique.



Pictured above – PEP mask with attachments and an example of how to use a PEP mask.

This leaflet should only be used if it has been given to you by your physiotherapist, who will have decided if this is a suitable treatment for you to undertake. Do not use this leaflet without first consulting with your physiotherapist.

The information on this leaflet is based on clinical best practice and consensus of opinion by physiotherapists within the ACPCF. For a detailed review of the evidence for this technique, please review the 'Standards of Care and Good Clinical Practice for the Physiotherapy Management of Cystic Fibrosis' 2017. Third edition. To view our consensus documents please visit cysticfibrosis.org.uk/publications.

The Cystic Fibrosis Trust provides information about cystic fibrosis through our factsheets, leaflets and other publications. Most of our publications can be downloaded from our website or ordered from our helpline.

Our helpline can help you with a range of issues, no matter how big or small. Our trained staff can provide a listening ear, practical advice, welfare/benefits information or direct you to other sources of support. The helpline is open Monday to Friday, 9am–5pm, and can be contacted on 0300 373 1000 or at helpline@cysticfibrosis.org.uk.

For more information about the Association of Chartered Physiotherapists interested in Cystic Fibrosis please contact ACPCFmembership@gmail.com.