

The PEP Mask



Information for families

Great Ormond Street Hospital
for Children NHS Foundation Trust

This leaflet explains about the PEP mask and what to expect when you receive one from Great Ormond Street Hospital (GOSH)

What is a PEP mask?

PEP stands for Positive Expiratory Pressure. It is a treatment to help people who have difficulty clearing sputum (phlegm) from their lungs.

The equipment consists of a facemask with a range of coloured expiratory resistors and a manometer (pressure gauge). The manometer checks the pressure at which you are breathing out.

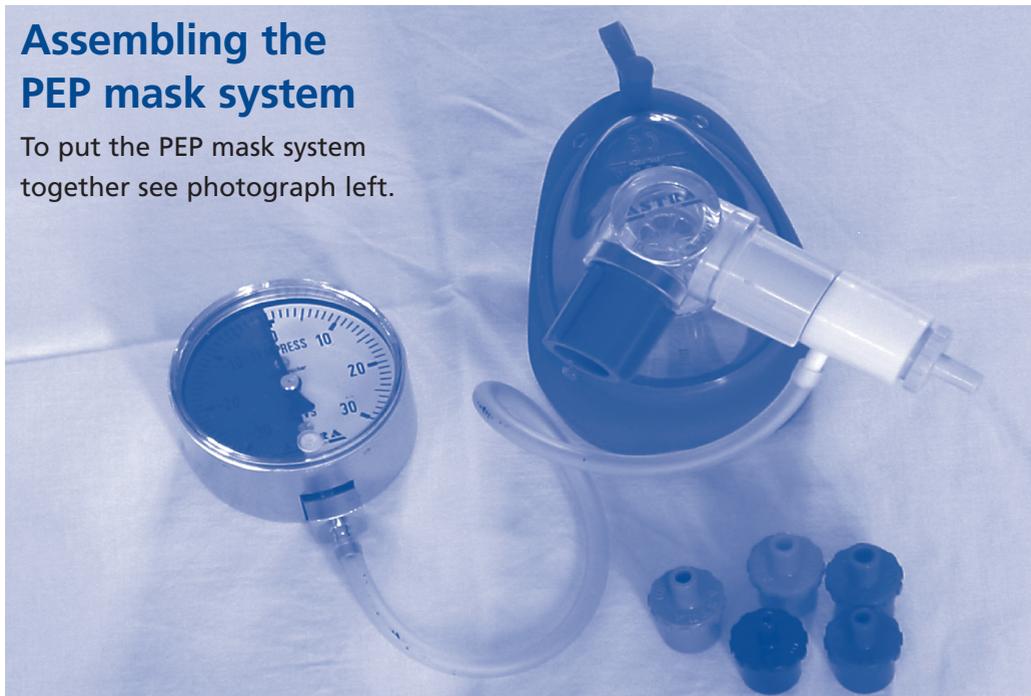
How does PEP work?

When you breathe out through the PEP mask with one of the resistors in place pressure builds up in your lungs. This helps to keep the airways open wide and also allows air to get behind sputum and help move it upwards.

Each of the different coloured PEP mask resistors has a hole in it. The larger the hole in the resistor, the harder it is to maintain the required pressure (10 to 20 cm H₂O) on the manometer. Therefore the sequence of valves acts as a progression from the 'easiest', black, to the 'hardest', brown.

Assembling the PEP mask system

To put the PEP mask system together see photograph left.



Using the PEP mask

Your physiotherapist will show you how to use the mask. This guide is a reminder for you.

1. Treatment can be carried out in sitting with your elbows on a table, or lying on your side in a postural drainage position. The PEP mask should be held firmly to your face.
2. Take a normal breath in through the mask and then breathe out through the mask. You should breathe out slightly harder than normal.
3. The attached manometer will show you what pressure you are reaching. The pressure needs to be between 10 and 20 cm H₂O.
4. About eight to ten breaths are taken through the mask.
5. Following this, you should put the mask down and do huffing and coughing to clear any sputum. You should then have a period of relaxed breathing before you continue.

This cycle should be repeated for 15-20 minutes or until you have cleared all your secretions.

Precautions

Chest pain, shortness of breath or a small amount of blood in the phlegm are often associated with a chest infection, but can also be caused by other CF complications. This is extremely rare but if it does happen during chest physiotherapy, please stop the treatment and contact the CF team for advice.

Cleaning the PEP mask

You should rinse all parts of your PEP mask in lukewarm water and clean it with a conventional washing detergent after each use. All parts should then be rinsed again and dried thoroughly before reassembly. You should not leave your PEP mask in direct sunlight as it may crack.

Sterilising

You should sterilise your PEP mask at least once a week using a steam steriliser or by putting it in a clean bowl of boiling water. Do not use a microwave steriliser.

Storing

Do not store the PEP mask on a windowsill or in direct sunlight. When it is dry, you should either wrap it in a lint-free cloth, place it in the bag provided or put it in a clean plastic container with a lid and keep it in a dust-free environment.

Contact details

GOSH switchboard: 020 7405 9200

Cystic Fibrosis office: 020 7762 6714

or email: cysticfibrosisunit.query@gosh.nhs.uk

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