

PEP mask

Information for patients



colorifyai



Leeds children's
hospital

caring about children

A brief guide to using a PEP mask, a handheld device used as part of your physiotherapy airway clearance routine.

What is PEP?

PEP stands for Positive expiratory pressure. It is a method to help clear sputum (phlegm) from their lungs. It is a handheld

How does PEP mask work?

Breathing out through the mask, pressure builds up in your lungs which helps to keep the airways open, this also allows air to get behind sputum sat deeper in order to help it be cleared easier.

How to use a PEP mask

Assembly

Your physiotherapist will discuss the appropriate set up for you. A series of colour-coded resistors will be provided with your PEP mask, the right sized resistor will be chosen by your physiotherapist to ensure the treatment is most effective for you.

Sometimes you will also be given a manometer to measure the pressure and guide your treatment. Make sure the resistor and manometer (if using) are attached to the 'OUT' arm of the PEP mask.

Record your coloured resistor here

Step by Step:

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

1. Take any inhalers or nebulisers (as prescribed) to prepare
2. Sit upright at a table elbows supported, use both hands to position mask over your nose and mouth, Alternative positions might be recommended by your physiotherapist
3. Take a normal breath in through your nose
4. Breath out through the PEP mask slightly harder than normal, aiming for pressures set by your physiotherapist (normal 10-20cmH₂O if using a manometer)
5. Keep the mask on your face and repeat as your physiotherapist has prescribed
6. Remove the mask, huff and cough to clear any sputum
7. Repeat as prescribed by your physiotherapist
8. Take any inhalers or nebulisers (as prescribed)

It is helpful to always bring your PEP mask with your during any admissions or respiratory appointment.

How to clean your PEP mask

After each use

Separate into three parts (mask, valve section, resistor). Wash in warm soapy water and rinse well, dry thoroughly and leave somewhere clean and warm to ensure a fast dry. If you notice your equipment is damaged please do not use it and contact the department.

Once a week

Separate into three parts (mask, valve section, resistor). Boil in pan of water with few drops of washing-up liquid for 10mins. Wipe dry and leave in warm place to dry thoroughly over night before reassembling

Storage

Do not store in direct sunlight or a windowsill. When it is dry, you should both 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.

Any concerns or queries about your PEP airway clearance routine please contact the paediatric physiotherapy team.

Paediatric Cystic Fibrosis and Respiratory unit

Tel: 0113 392 2479 or Tel: 0113 392 0609

What did you think of your care?

Visit: www.leedsth.nhs.uk/patients/support/feedback-complaints/friends-family-test/

Scan or click the QR code - Your views matter

© The Leeds Teaching Hospitals NHS Trust • 1st Edition Version 1
Developed by: Christine Blackburn (Highly Specialised Respiratory
Physiotherapist) • David Crawford (Staff Nurse)
Produced by: Medical Illustration Services • MID code: 20250822_010/RC

LN006083
Publication date
02/2026
Review date
02/2029