

Bubble PEP



Information for families

**Great Ormond Street Hospital
for Children NHS Foundation Trust**

This leaflet explains what Bubble PEP is, why we use it and how to set up and use the equipment.

What is bubble PEP?

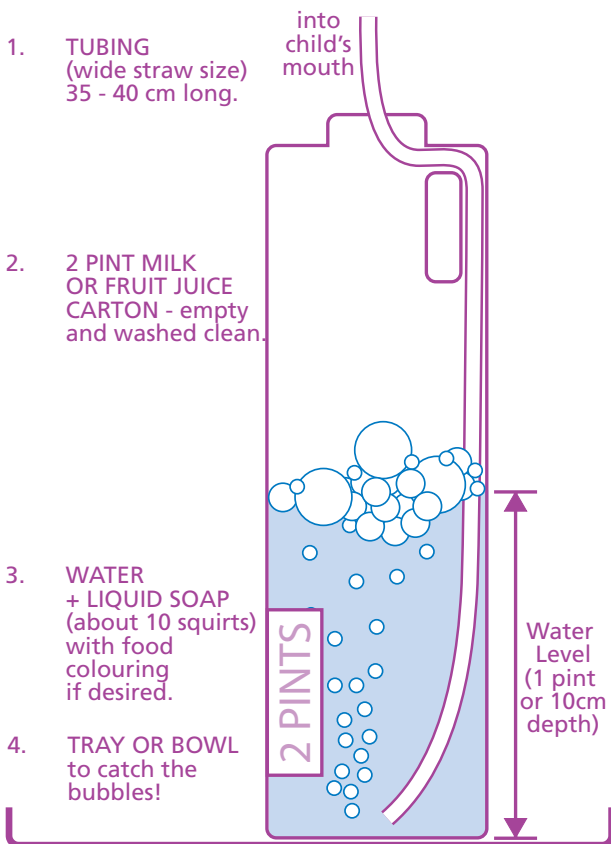
PEP stands for Positive Expiratory Pressure. Bubble PEP is a treatment to help children who have a build up of sputum (phlegm) in their lungs. Bubble PEP is used for any child who has difficulty clearing phlegm, most commonly those who have cystic fibrosis (CF) or after surgery. During treatment, your child will be encouraged to blow big bubbles through water – which is fun for them! Treatment is explained in the next section; and the equipment used is shown in the diagram opposite.

How does bubble PEP work?

Your child will be encouraged to blow down the tubing into the water, and make bubbles. This creates positive pressure back up the tubing and into your child's airways and lungs.

As the pressure holds open your child's airways, it helps more air to move in and out of their lungs. The air flow helps to move sputum out of the lungs into the airways. From here, it can be coughed up (cleared), which is the aim of treatment.

Bubble PEP Equipment



How to do bubble PEP treatment

Your physiotherapist will show you how to do bubble PEP. This guide is a reminder for you.

Preparation:

1. 1 pint or 10cm depth of water.
When your child is old enough, 5 squirts of liquid soap plus food colouring may be added if you want coloured bubbles.
2. Put the plastic tubing into the water, through the handle of the bottle.
3. Put the bottle into a tray or bowl.

Bubble PEP Treatment

1. Ask your child to take a breath in and blow out through the tubing, into the water to create bubbles. The breath out should be as long as possible. Aim to get the bubbles out of the top of the bottle each time – it may be messy and should be fun!
2. Repeat ___ times. This is one cycle.
3. Ask your child to huff (forced expiration technique) and cough to clear the phlegm, as taught by your physiotherapist. Encourage your child to cough the phlegm out rather than swallow it.
4. Repeat this cycle (steps 1 - 3) ___times in total.
5. The tubing, bottle and tray should be washed out and left to dry, or dried with a disposable towel and stored in a clean place until next used. You should throw the bottle and tubing away, replacing it with clean equipment, at least once a week.

Storing

Do not store the Bubble PEP 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.

Risks of bubble PEP

As with all airway clearance devices it is very important that equipment is kept clean to prevent infection.

There have been no reported problems with the use of bubble PEP or any other airway clearance techniques.

However, if you are worried about your child's chest, especially if they become short of breath, have chest pain or are coughing up blood, it is important that you contact the CF team at GOSH without delay.

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Compiled by the Respiratory (CF) Physiotherapists

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