Paediatric Respiratory Medicine

Care of a chest drain in children

What is a chest drain?
It is a tube which is inserted between the ribs into the chest cavity, into the space between the lung and the chest wall known as the pleural cavity. It does not go into the lungs. A chest drain is inserted when air, fluid or pus has collected in this space. It is attached to a bottle to drain the fluid or air from the space around the lungs.

The bottle usually contains water and the end of the drain is submerged into the water. The fluid, air or pus travels down the tube, into the bottle. The water acts as a valve stopping air from re-entering the space where the drain is sitting.

Who needs a chest drain?
It is sometimes required if your child has pus (empyema), fluid (pleural effusion) or air (pneumothorax), in the space which makes it difficult to breathe normally. By inserting a chest drain and draining some of this pus, fluid or air from around the lungs it can aid recovery and make it more comfortable for your child.

How long will my child need the chest drain for?
It will depend on how much fluid or air is drained from the chest tube and on your child’s condition but usually chest drains are removed after two to five days and not normally left in for more than a week.

How will it be put in and removed?
It is inserted either whilst your child is awake using a local anaesthetic to numb the area, if this is felt to be appropriate or under a general anaesthetic. It can be removed by a nurse or doctor on the wards. The nurse will talk you and your child through the procedure. Your child will normally need an x-ray after the chest drain has been inserted and another x-ray following its removal.

Special care
- Your child can eat and drink normally whilst the drain is in.
- It may be uncomfortable but nursing staff can give pain relief to resolve any discomfort your child may experience.
- Please be aware the tubes are easily dislodged if pulled or tugged, which can occur accidentally, so please be mindful as your child plays, gets in and out of bed etc. Ask nursing staff for assistance as necessary and if you are worried that the drain may have accidently been tugged or pulled, report it immediately.
Your child will normally be encouraged to mobilise around the ward as an important part of their treatment, but you will not be able to leave the ward unless accompanied by a member of staff while the drain remains insitu.

You should be aware that the drain should never be raised above the level of your child’s chest.

Try to avoid kinking the tubing, swinging the bottle or carrying the drain by the tubing.

The bottle should remain upright at all times; inform a member of nursing staff if it is knocked over.

The bottle should always be kept always below the level of the chest.

**Suction**

Your child’s drain may be attached to some low suction equipment to encourage the drainage of fluid. This does mean that your child will not be able to move far from their bed space.

**Are there any other long term complications**

There are not usually any long term complications. There may be a small scar left where the drain was inserted but we expect this to fade over time. Your child will be followed-up in the outpatient clinic.

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