

Care of a single lumen Leader Cuff central line

A central line is a polyurethane or silicone tube, which is tunnelled under the skin on the chest and into one of the large veins leading to the heart. The tip of the line sits in one of the heart chambers (called the right atrium). It is quite safe for the line to be in this position. It rarely causes blockage and the veins and heart continue to work normally.

The other end of the central line comes out of the skin on the chest wall, which heals around the line.

There are several different types of central line, including Hickman/Broviac and Leader Cuff, which may have one or two lumens. They all work in the same way, but may have different types of switches or clamps to open and close them. All lines should be switched off when not in use. A screw-on cap (bung) is attached to the end of the line, through which injections can be given or blood taken. This cap re-seals after each use.

Your child has a single lumen polyurethane Leader Cuff central line made by the company Vygon.



Inserting a central line

The line is put in under general anaesthetic. First a small cut is made at the side of the neck, so that the line can be put into the vein and down into the heart. Then the other end of the line is threaded down under the skin on the chest, to come out of a tiny hole, usually to the side of the nipple. The neck wound is then stitched (with dissolvable stitches under the skin), and is usually covered with steri-strips. The place where the line comes out of the skin (the exit site) will be covered with a clear dressing.

The line is then flushed to make sure it works, and its position is checked with an x-ray of the chest. A single dose of an antibiotic is routinely given in theatre at the time of insertion. There is initially a risk that the line can fall out, so it will be held in place with a clear dressing. The dressing will be left in place for a week and will then be changed weekly.

The whole procedure usually takes about 40 minutes. However, children are often away from the ward for about one and a half hours, which includes the time for recovery from the anaesthetic.

What the central line is used for

The line is used for giving drugs and fluids and for taking blood samples. The bung on the end can be attached to a blood transfusion, or an infusion of fluids. This means that we can give treatments whilst avoiding the distress caused by many injections. Some injections may still have to be given, so please do not promise your child that they will never have to have an injection.

How it stays in

The central line has a cuff made of Dacron, which lies under the skin and forms scar tissue around it that holds it in place.

The tunnel under the skin is only the size of the line but smaller than the cuff which prevents the line from slipping out. Looping the line up under the dressing will help take some of the weight of the line and will help prevent it falling out.

A central line can stay in place throughout treatment. This may be for a few months, but may be for as long as two or three years, depending on the length of your child's treatment. Sometimes lines need to be replaced if they become blocked, broken or infected.

How to look after your lines

When the line is not in use, it should be tucked out of the way. For children over the age of four years a wiggly bag may be used. For children under four years and babies, a gauze vest should be used. Lines should be strapped to the chest or clothes by 'flag' taping at all times when an infusion is attached. The exit site should be covered by a clear dressing. You must ensure that the weight of the line is held by a wiggly bag or gauze vest at **all** times.

For any further advice or information, please speak to a member of staff on Piam Brown day ward on 023 8120 4249 or Piam Brown ward on 023 8120 4816/4817.