

Intravenous (IV) infusions: information for families

Most children will have an intravenous (IV) infusion at some point in hospital. We think it is helpful to explain what an infusion is and what it involves, so it is less scary for your child. This information sheet from Great Ormond Street Hospital (GOSH) describes how infusions are used at GOSH, how they are inserted and what to expect when your child has one. An Easy Read information sheet is included for your child.

An intravenous (IV) infusion is a way of delivering fluid or medicine directly into your child's bloodstream. This enables the fluid or medicine to get into your child's system much quicker than taking it by mouth. We use an infusion when a child cannot swallow medicine by mouth or it is better to give it into the bloodstream.

An IV infusion consists of various bits of equipment joined together. The first bit is a cannula (thin, plastic tube) which is put into a vein, usually in their hand or arm. The cannula is then connected to a longer, wider tube which, in turn, is joined to a bag containing the fluid or medicine.

This bag is attached to a machine, which helps to make sure the correct amount of fluid or medicine is given. The machine and bag are hung on a drip stand on wheels so that gravity helps the fluid or medicine.

How is an IV infusion set up?

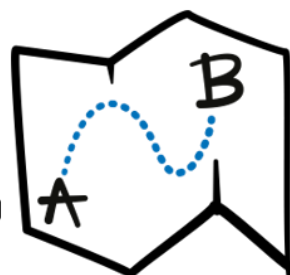
The first stage is to insert a cannula into a vein.

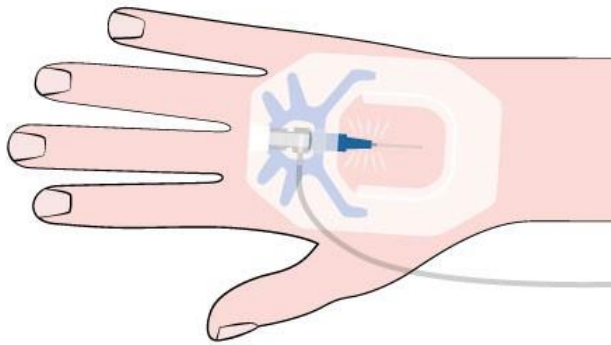
Most children and young people at GOSH have local anaesthetic cream put on their skin before a cannula is inserted. This takes up to an hour to make the skin numb and is then wiped off.

Alternatively, some children prefer a cold spray, which only takes a few seconds to work but wears off quickly too.

The next stage is to find the right vein to use – usually a vein in the wrist or back of the hand. The nurse will usually put a tight band (tourniquet) around the arm so that the veins stand out better.

They will feel the back of your child's hand or lower arm to find the best vein and clean the skin over it with an alcohol wipe. They will quickly insert a needle into the vein – this contains the cannula – and remove the needle, leaving the cannula in the vein.





pump and program the flow rate. The fluid will drip regularly into the drip chamber, through the machine and into your child's bloodstream.

IV pumps have lots of alarms to tell your nurse about any problems or that the fluid or medicine has all been delivered. The nurse will be listening out for alarms so do not try to turn them off.

Sometimes the medicine can leak out of the vein (extravasation), which can be harmful, depending on the medicine that has leaked. If your child complains of pain or stinging near the cannula, or you notice any redness to the area and the surrounding area, tell the nurse immediately.

All infusions are connected in the same way using the spike and programmed into the IV pump-

When your child no longer needs any IV infusions and the cannula isn't needed anymore, the nurse will disconnect the tubing from the cannula and throw away the IV bag and giving set.

They will remove the see-through dressing and medical sticky tape, then press down on the vein with gauze or cotton wool while they pull out the cannula. They will tape the gauze or cotton wool in place – you should leave this in place for 30 minutes or so.

The nurse will usually give the cannula a quick flush of saline (salt water) solution to check it is in the right place and prepare it for the drip. They will make the cannula secure with a see-through dressing and medical sticky tape, before connecting the cannula to a longer, wider piece of tubing called a 'giving set'. This has a plastic spike on the end so it can be connected to an IV bag.

Finally, the nurse will secure the cannula on your child's arm or wrist with a splint and bandage – this will stop the cannula being dislodged.

The nurse will connect the cannula to the giving set, thread the longer, wider tube through an IV

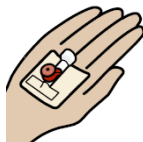
Further information and support

Talk to your child's nurse

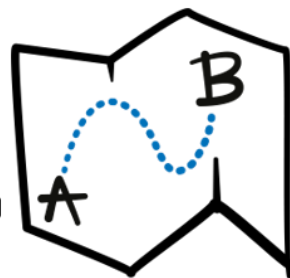
Having a drip



You need to have some medicine. You will not swallow this medicine. It will go into your blood stream through a 'drip'.



The nurse will put a cannula into a vein in your hand. This is a thin, plastic tube.





They will put some cream on your skin first. This will make it numb so you can't feel them putting in the cannula so much.



They will wipe off the cream and look for the best vein for the cannula.



The nurse will quickly put in the cannula, then tape it in place.



They will join a long plastic tube to the cannula then join this to a bag of medicine.



A pump machine will stop you getting the medicine too fast. The pump machine is on wheels so you can still go to the play room if you want.



Sometimes the medicine can leak out of your vein. This will hurt or sting. This can be a problem with some medicines, so tell the nurse straightaway.



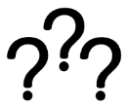
When you have had all the medicine in the bag, the nurse might join up another bag of medicine, in the same way as before.



If you do not need any more medicine, the nurse will take out the cannula and press down on your skin for a few seconds.



They might put a dressing where the cannula was put in. Keep this on for about 30 minutes.



Please ask us if you have any questions.

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