

# Let's Talk About...

## Arterial Lines

An arterial line (also called an “art line”) is a short, soft, plastic tube (a catheter) that is placed directly into an artery. The arterial line is connected to a thick, flexible tube that leads to an infusion pump and monitor (see illustration below).

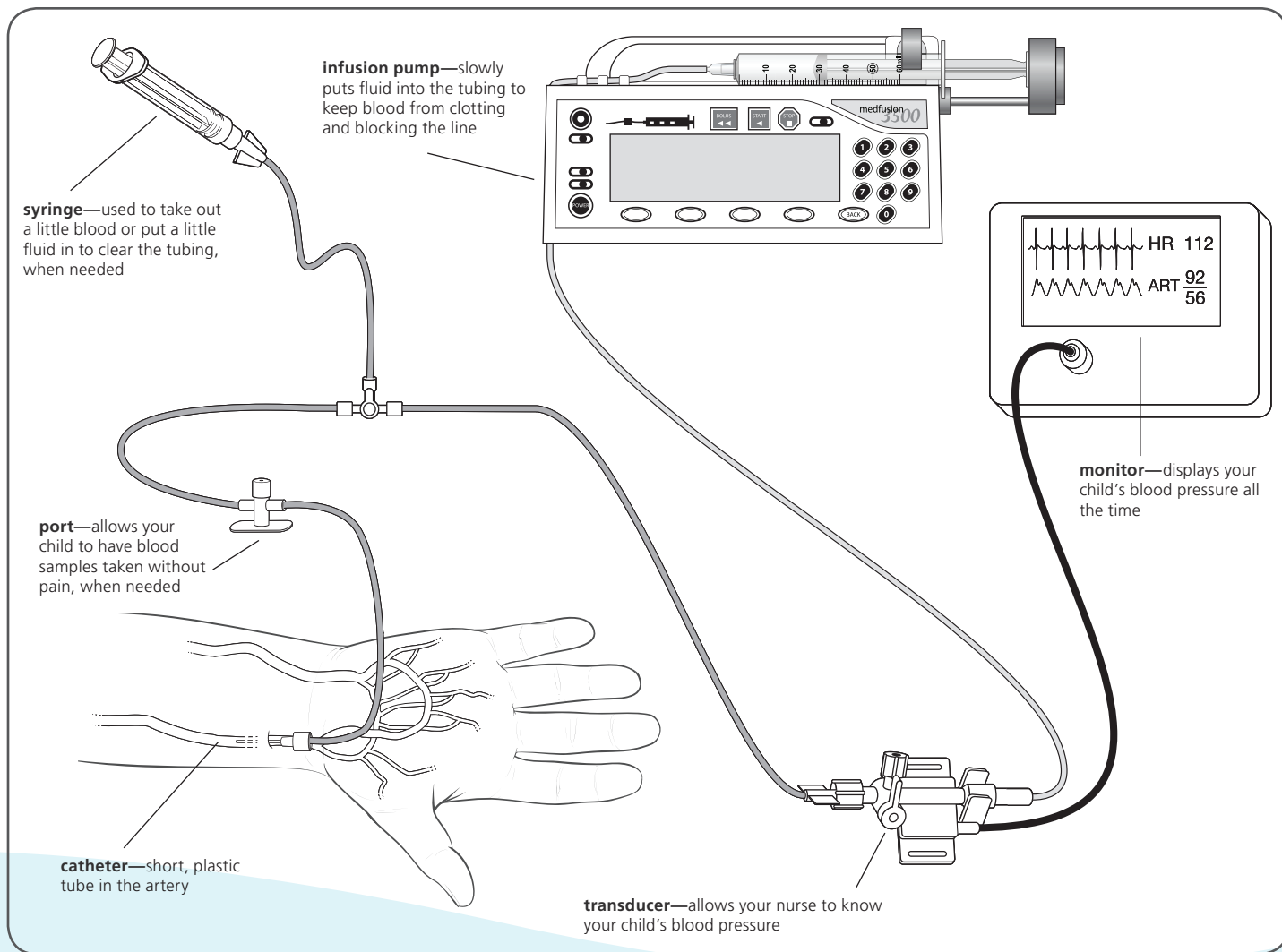
Arterial lines are necessary in the following cases:

- When blood samples must be drawn frequently to measure how your child’s lungs are working.
- When your child’s blood pressure needs to be monitored all the time.

### How is an arterial line placed?

Arterial lines are put in place in the operating room and in the intensive care unit. During the procedure, your child’s nurse will make sure he is as comfortable as possible. Most often, he will receive medicine to help relieve pain and anxiety during the procedure.

Most arterial lines are placed in an arm or leg. It is important for the arm or leg to be held still. Your child may have a padded board to help keep his arm or leg still.



## When placing the arterial line, the doctor or other healthcare provider will:

- 1 Insert a small needle into the artery to place the arterial line.
- 2 Remove the needle, but leave the arterial catheter in the artery.
- 3 Put a couple of stitches in the skin to secure the catheter.
- 4 Connect the catheter to the thick, flexible tubing as shown in the illustration.
- 5 Fill the tubing with solution to prevent blood from clotting and blocking the line.
- 6 Tape the line securely to your child's skin. If necessary, secure your child's arm or leg to a padded board. This will keep the arm or leg still and prevent your child from accidentally pulling the line out.

## What might my child say about the procedure?

- Most children do not remember the procedure because the catheter is placed during surgery.
- Some children worry about a needle still being in their arm. Reassure your child that it is a very small tube.
- Some children don't like an arterial line because they cannot bend their wrist, or use their hand a lot. Remind your child how the arterial line is helping him.
- For most children, the biggest concern is removing the tape or stitches. Reassure your child by explaining the procedure.

## When will the arterial line be removed?

An arterial line is removed for one or more of the following reasons:

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- When your child doesn't need to have blood tests frequently
- When your child doesn't need to have his blood pressure watched all the time

## What will my child experience when the arterial line is removed?

- 1 Your child's nurse will gently remove the tape holding the arterial catheter in place. This pulls gently on the skin. If your child has a hard time with this, the nurse can use a special liquid that helps loosen the tape. The liquid doesn't hurt at all.
- 2 Next, the stitches are removed. Most children say they cannot feel this or that they just feel something pulling.
- 3 The catheter is then removed. Most children say it takes only a few seconds. The nurse will hold your child's wrist with a bandage for about five minutes. This is important to make sure the bleeding stops. Most children would rather not wait, at this point. It may help to read your child a short story or talk about his favorite things while he waits.
- 4 The nurse will hold the artery for about five minutes to stop bleeding. This is usually when the child is the most upset. Then the nurse will apply a bandage that needs to stay in place for one day.

When the arterial catheter is removed, it means your child is getting better. It is one of the "signs" your child is getting well enough to be transferred out of the intensive care unit.