

PERIPHERALLY INSERTED CENTRAL CATHETER (PICC)

AT CHILDREN'S HOSPITAL OF PITTSBURGH OF UPMC, we believe parents and guardians can contribute to the success of this procedure and invite you to participate. Please read the following information to learn about the procedure and how you can help.

Fast Facts About the Peripherally Inserted Central Catheter (PICC)

- The PICC is a long, soft, flexible catheter (*CATH-it-er*) or tube that is placed in a vein in the arm for long-term use.
- The use of X-rays is needed during positioning of the PICC.
- The procedure to place the PICC takes about 1 to 1½ hours.
- Pediatric interventional radiology staff might use sedation medications to help relax children who are unable to remain still for the entire procedure.
- When sedation medications are used, there are important rules for drinking and eating before the test that must be followed.
- The pediatric interventional radiology doctor might decide that a different device would be better suited to your child's needs than a PICC line. If that happens, the doctor will discuss any potential changes with you.

What Is A PICC?

The PICC, also called a PICC line, is used for giving IV fluids, IV nutrition fluid (also known as TPN), and medicines, and for drawing blood. It usually is placed at the bend of the arm near the elbow or close to it because this vein has a large volume of blood flow. It is never placed in the hand or in the wrist. The PICC is put into the vein in the arm where it will go directly into the heart. Once placed, the PICC can stay in for up to several months.

Your child may receive a PICC to:

- avoid needle sticks for frequent blood tests.
- minimize his or her discomfort from frequent IV catheter changes.
- receive strong medications or concentrated IV nutrition (TPN) without damaging his or her blood vessels.
- continue therapy after leaving the hospital as parents can be trained to give their child's IV therapy at home.



Procedure Preparation

You may want to bring along a "comfort" item—such as a favorite stuffed animal or "blankie"—for your child to hold during the procedure.

If your child is having sedation, there are important rules for eating and drinking that must be followed in the hours before the procedure.

- Your child may not have solid foods or milk products up to 8 hours before the **scheduled procedure**.
- Formula-fed babies may be given formula up to 6 hours before the **scheduled procedure**.
- Breastfed babies may nurse up to 4 hours before the **scheduled procedure**.
- Your child may have clear liquids (water, Pedialyte®, and apple juice) up to 2 hours before the **scheduled procedure**. Your child **cannot** drink anything carbonated.

The Procedure

The PICC is done in the Interventional Radiology suite at the Department of Pediatric Radiology of Children's Hospital. Interventional Radiology doctors perform minimally-invasive procedures using images or pictures, such as X-rays, CT scans, and ultrasounds, to guide them. In the Interventional Radiology

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suite will be a pediatric interventional radiology doctor, who will supervise your child's procedure. Pediatric radiology technologists and nurses will help the doctor. The doctor and staff will be wearing hats (like shower caps), masks, gloves, and lead aprons during the procedure. The lights will be dim inside the room. You will see an X-ray machine, a long table, and television screens. You might explain to your child that the X-ray machine is a large camera for taking pictures that will be shown on the TV screens. If your child has any questions, the doctor, technologists, and nurses will be happy to answer them before the procedure.

- You can come with your child to the Interventional Radiology suite and give support and comfort until the procedure begins.
- Once the procedure begins, you will be shown to the main waiting area. You may either stay there or ask the desk staff for a pager in case you would like to leave the area to get something to eat or drink.
- Your child will be asked to lie down on the table and a strap will be placed across your child's waist to help him or her keep still during the procedure.
- Your child's arm will be laid flat and straight on a plastic board, and a strap will be fastened around the wrist to help your child keep the arm still during the procedure.
- The nurse or doctor will find the vein in the arm where your child's PICC will be placed by either feeling with fingers or using ultrasound.
- If your child would need sedation medication, the nurse would give it to your child under a doctor's supervision either orally or through a different IV at this time.
- A special soap will be used to clean the area on your child's arm where the PICC will be placed.
- The doctor or nurse will place a small IV needle into a vein in your child's arm where the PICC will be inserted.
- Your child's body will be covered with a sterile sheet that has a hole on the arm through which PICC will be placed. The sheet will keep that area of your child's arm clean and germ-free.
- Your child will be given numbing medicine through a needle in the area around the vein where the PICC will be placed.
- Using the TV screens as a guide, the doctor will pass a thin, soft wire into the IV in your child's arm and through the vein up to the heart.
- The doctor will remove the IV needle and pass a small dilator (about the size of the tip of a ball point pen) over the wire to make the opening in the vein wide enough for the catheter.



- The doctor will measure the wire length and cut the catheter to the same length. He or she will then gently slide the catheter over the wire and into the heart, remove the wire and dilators, and make sure that the PICC works.
- A large bandage will be placed at the site of the PICC to keep it secure and in place. A sock-like covering also will be placed over the area to keep it clean.
- Once the procedure is finished, your child can return to his or her room.
- If your child needed sedation medication, he or she will have to stay in the Interventional Radiology suite or a recovery area for at least 30 minutes afterwards to be monitored before returning to his or her room.

Fast Facts About Radiation

As a parent, you may have concerns about radiation exposure. Children's Hospital takes every precaution to make sure your child is safe.

- Our goal is to do the procedure correctly and thoroughly, while exposing your child to the smallest amount of radiation necessary to complete the procedure
- Advances in equipment and film have lowered the amount of radiation your child will receive.
- All of the equipment is inspected regularly.

Fast Facts About Sedation

- The pediatric interventional radiology doctor may recommend that your child have sedation medication in order to help your child relax and remain completely still during the entire procedure.
- If sedation medication is used, it is likely that your child will not feel pain during the procedure or remember it afterward.
- Either the pediatric radiology doctor, a physician's assistant (PA), or a certified registered nurse practitioner (CRNP) will prescribe the sedation medication for your child, which depends on your child's age and medical history. A Department of Pediatric Radiology nurse will give your child the sedation medication under a doctor's supervision.
- Sedation medication will be given either orally (by mouth) or directly into a vein through an intravenous (IV) line, depending on your child's age.
- While your child is under sedation, his or her heart rate, blood pressure, and blood oxygen level will be watched continuously by a pediatric radiology nurse.
- A supervising pediatric interventional radiology doctor is always present when sedation medication is given.

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A Parent's/Guardian's Role During the Procedure

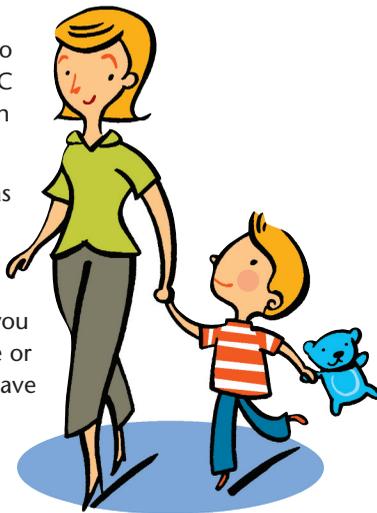
We welcome your help and support before and after the placement of the PICC. The most important role of a parent and guardian is to help your child stay calm and relaxed before the procedure. If your child is relaxed and is able to stay still for the entire procedure, he or she may not need sedation medication.

- The best way to help your child stay calm is for you to stay calm.
- We encourage you to talk to your child and hold his or her hand before the procedure.
- We welcome your questions, but please ask them either before or after the test.

Special Needs and Patient Preparation

If your child has any special needs or health issues you feel the doctor needs to know about, please call the Department of Pediatric Radiology at Children's Hospital of Pittsburgh and ask to speak with a nurse before your child's PICC line is placed. It is important to notify us in advance about any special needs.

Preparing your child beforehand, as well as comforting your child during the test, will help your child have a more positive experience. Sometimes it is difficult to know how to explain tests to children. If you have any questions about ways to prepare or support your child or feel your child will have difficulty during the test, please call the Department of Pediatric Radiology at Children's Hospital of Pittsburgh and ask to speak with the child life specialist.



Questions

If you have any questions about these policies, please call the Department of Pediatric Radiology at Children's Hospital of Pittsburgh or make sure you discuss them with the pediatric radiology doctor, nurse or technologist before the test.

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To see the list of all available patient procedures descriptions, please visit www.chp.edu/procedures.