What should I do if my child is referred to an interventional radiologist?

If your child is referred for an interventional treatment, be certain you understand what is involved. You may want to ask:

- Why is the treatment being recommended for my child?
- What are the benefits and potential risks of the treatment?
- Are there alternative options?
- How will the treatment be performed?
- Will my child require sedation or anesthesia?
- Will my child need to stay in a hospital? If so, for how long?
- Will there be any restrictions on my child's activities?
- If so, when can my child return to normal activity?

Your doctor will advise you of any special preparations your child may need before the examination. Your child may not be able to eat or drink for 4–8 hours before a treatment if sedation or anesthesia is planned. In most children, sedation or anesthesia is provided by a pediatric anesthesia specialist, who is an expert in providing safe and comfortable care for your child. If you have any additional questions, talk to your doctor.

What should you expect after treatment?

Once the treatment is completed, the doctor removes the catheter or device and applies pressure to the tiny incision to allow it to heal. Usually, your child will be able to go home the same day, but there is a small chance he or she will require a short stay at a hospital. After the treatment, your child may be prescribed medication to assist with any pain or healing. During a period of regular follow-up appointments, which may include ultrasound or other imaging tests, the doctor will monitor your child's progress after the therapy.

Recovery

Due to the minimally invasive nature of the treatments performed by an IR, the recovery time is often just a few days.

Follow-up

The interventional radiologist is part of the clinical care team and will work closely with the other members of the health care team to ensure that your child receives the best possible care. This includes follow-up during hospital stay and after your child is discharged. During the follow-up appointment, the PIR will evaluate your child's progress and address any remaining issues or symptoms that he or she may have.

For more information on how interventional radiology might help your child, the Society of Interventional Radiology's website, ***sirweb.org***, provides easy-to-use tools to find a local pediatric IR.

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Interventional radiology and pediatric patients

Society of Interventional Radiology
The vision to heal®

Pediatric interventional radiologists (PIRs) are board-certified physicians who deliver minimally invasive treatments to children that result in less risk, less pain and less recovery time than surgery). PIRs generally have additional training in interventional radiology therapies for children. Like most interventional radiology treatments, care for younger patients is also delivered via catheters or other devices through a tiny nick in the skin and use different types of radiology imaging guidance, including x-ray, CT scanning and ultrasound, to deliver precise treatment. Many treatments are performed on an outpatient basis or with a short hospital stay.

What are the advantages of interventional radiology treatments for infants and children?

Interventional radiology treatments generally offer less risk compared to open surgery. Interventional radiology treatments are minimally invasive and usually

- Require shorter recovery time (so children are generally out of bed and back to school sooner)
- Are less painful during and after the treatment
- Require a shorter hospital stay
- Result in less scarring
- Do not require stitches

What are some of the common ways IRs provide care for infants and children?

PIRs treat many medical conditions in infants and children. A referral may be needed from the child's pediatrician, family practitioner or specialist. Common examples include:

- **Vascular anomalies.** IRs are experts in the treatment of abnormal vascular development. These malformations can be physically debilitating or psychologically damaging to a child's development. Using their expertise in performing embolizations, sclerotherapy and/or laser treatments, IRs help address the associated symptoms of these malformations and, in some cases, help children feel better about their appearance.
- **Deep vein thrombosis.** Blood clots in the pelvis and legs can be fatal. Interventional radiologists use medications and devices to help break up blood clots and open up blood vessels that have been closed by clots, which can help reduce long-term damage from them.
- **Feeding difficulties.** An interventional radiologist can safely insert a small tube (catheter) directly into the stomach or small intestine of children under intravenous sedation or general anesthesia. This tube helps children who are unable to take sufficient food by mouth. In short-term situations, the IR may insert the tubes via the nose or mouth.

Other treatments PIRs often perform include:

- **Central venous access.** A thin plastic tube (catheter) is safely and effectively inserted into a vein, so that fluid, nutrition, medication or chemotherapy can be injected into the bloodstream. Central venous access catheters reduce the need for repeated needle sticks for blood draws. The types of catheters that may be placed include peripheral catheters in the arms (peripherally inserted central catheters, or "PICC lines") or catheters in the neck or leg called "central lines." A port, a small device used to make repeat entry easier, is usually placed in the chest area, though in younger children it may be placed in the abdomen. The insertion will require at least some type of sedation or anesthesia in most children.
- **Biopsy.** In a biopsy, clinicians obtain samples of tumors in organs (e.g., liver or kidney) or lesions to determine whether it is benign or malignant. The biopsy itself is performed with only a needle, via a small nick in the skin, using anesthesia to make the patient comfortable. An IR will use ultrasound, fluoroscopy and/or CT to help guide the needle through your child's body and into the tumor to take the biopsy.
- **Diagnostic angiography.** A small plastic tube (catheter) is placed into an artery, injecting dye (sometimes called contrast) while X-rays are taken of the area. This kind of imaging helps diagnose vascular problems in the brain, blood vessel malformations, high blood pressure, liver disease or other conditions. In select circumstances, minimally invasive vascular intervention techniques can be used to treat children with blood vessel malformation and other conditions.

Other common interventional radiology treatments performed in infants and children include diagnosis and drainage of infections, unclogging blocked blood vessels and treating blockages to the kidneys and other kidney problems.