

Angiography (sometimes called Angiogram, Venogram or Arteriogram)



Radiology Department

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What is angiography?

Blood vessels do not show up in ordinary X-rays. Angiography is a special way to take X-rays of blood vessels. If there is anything unusual about a blood vessel the angiogram will show exactly where and what it is. An angiogram will also give the surgeon a "map" of the blood vessels. This is of great help as s/he prepares for surgery.

How is it done?

The X-ray is done in the Radiology Department by a doctor who is a specialist in medical pictures (Radiologist).

Your child wears a hospital gown, no underwear or jewellery.

Your child needs to keep very still for this X-ray. This is difficult for most children so it is done with the help of a general anesthetic. An intravenous line (a thin plastic tube) is put into your child's hand. If your child already has a line in place, the same line is used. Most children sleep for 30 minutes in a recovery room. A nurse is in the room to watch your child until s/he is fully awake.

Once your child is asleep the radiologist cleans the groin area. S/he puts a needle into an artery or vein in the groin. The radiologist threads a guide wire through the needle into the artery/vein. The radiologist removes the needle. S/he leaves the guide wire in the blood vessel.

The radiologist passes a thin plastic tube, a catheter, over the guide wire. The doctor watches the tube on a screen as s/he guides it into the blood vessel s/he wants to look at. Then s/he injects a dye (contrast medium) into the catheter. The con-

trast medium flows through the blood vessels so they show up on the X-ray.

The camera takes a picture record for the radiologist to study later. The radiologist may need to take X-rays of more than one blood vessel. Afterwards the radiologist pulls the catheter out.

The radiologist or nurse holds a dressing firmly on the groin for a few minutes to stop any bleeding.

How does it feel?

Children who have the anesthetic will not feel or even remember the angiography.

How do you prepare your child for the angiography?

Your child must **not eat or drink** for some time before the angiogram. How long depends on the age of your child. The nurse in Daycare will telephone you the day before the angiogram. She tells you when your child needs to stop eating and drinking. Please follow these instructions. It is not safe for the child to have an anesthetic unless his/her stomach is completely empty.

- Ask your child to empty his/her bladder just before the anesthetic. The contrast medium passes through the kidneys quickly. It fills up the bladder during the test.
- The anesthetist and the radiologist speak with you and your child in Daycare before the test. They explain why and what they hope to do. A parent or guardian needs to **sign a consent form** before the test. A consent is a legal document. You sign it to say you understand what the angiogram is and its risks and benefits for your child.

Does your child have allergies? Remember to tell the radiologist. Allergic reactions to the contrast medium are unusual but can be serious.

What happens after the angiogram?

Your child goes the PACU (post anesthetic care unit) to wake up. After about an hour s/he returns to Daycare or the ward.

- S/he lies flat for 6 hours after the angiogram to let the wound heal. A nurse will check for bleeding or large bruising in the groin:
 - for the first hour, every 15 minutes
 - for the next three hours, every 30 minutes
- If you see bleeding or swelling tell the nurse. You may see a small bruise. This is normal.
- Once your child is fully awake, s/he can eat, drink, and take medicines as usual.

Are there any side/after effects after an angiogram?

- The groin may be sore.
- The anesthetic makes some children/youth drowsy for a few hours.
- Rarely a child gets a large bruise (hematoma), bleeds, or the blood vessel blocks.

How do you get the results?

The radiologist will contact your doctor about what s/he sees in the X-rays. Call your doctor in a week for the results.

Ways you can help.

- Explain what will happen so your child understands. If you need help to explain, ask a nurse or child life specialist. A pamphlet called **“Helping your Child Manage Medical/Surgical Procedures” (BCCH1209)** may help. It is available in the Family Resource Library of the hospital.
- There is pay parking at B.C.’s Children’s Hospital. The parking lots are always busy.
- You and your child will be more relaxed if you are not rushed. Allow lots of time to get to your appointment.