

Understanding Ultrasound Examinations



Radiology Department

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What is Ultrasound?

Ultrasound is a way of creating an image using sound waves rather than x-rays. Ultrasound is very useful for looking at the “soft” tissue parts of the body, such as the heart and blood vessels, gallbladder, liver, spleen, kidneys and bladder. “Soft” tissues do not show up well on x-ray film.

Ultrasound is able to distinguish one type of tissue from another. It also can show movement inside the body like blood flowing through a vein or the heart beating. This gives helpful information that can assist the doctor in making the diagnosis.

How is an ultrasound done?

The technologist runs a small instrument called a **transducer** (which looks a little like a microphone) over the area of the body being examined. This sends high pitched sound waves into the body (they are too high for a human ear to hear). The sound waves echo back to the transducer as they strike various organs or substances, such as blood or bone). Each type of substance/tissue produces a different type of echo.

The ultrasound converts these echoes into an image of the organ being studied. This can be seen on the screen. Photographs of the images are made for further study.

What happens during the test?

The test is done in the Radiology Department by an ultrasound technologist or a radiologist.

Your child lies on a stretcher. The technologist smooths a little warm gel over the area of the body that will be examined. The transducer is then gently rolled over the area.

If your child is old enough, please explain the procedure in simple terms. Explain what happens and where, what he/she will see and feel. Be reassuring. If you need help with this, ask a nurse or child life specialist to assist.

How does it feel?

This is a painless procedure. Please reassure your child that there are no needles and no hurts involved.

Parents are welcome and encouraged to stay with their children during the examination if they wish. We offer a selection of children’s videos that your child can watch during their procedure.

We suggest that young children bring their favourite toy or security blanket/pillow along.

Babies should have a bottle of milk/formula unless the preparation instructions for the particular scan state otherwise (and a pacifier if the baby normally sucks on one).

Are special preparations needed?

Some scans need food and/or fluid to be withheld. Some types need food and/or fluid to be given before the examination. Please check the list below for instructions appropriate to your child’s age and type of scan.

Abdomen, Gallbladder, Pancreas.

0-3 years: allow only clear fluids - do not give milk or solid food - for 2 hours before the examination.

4-12 years: allow only clear fluids - do not give milk or solid food - for 4 hours before the examination.

Adolescents (13 years and over): allow only clear fluids - do not give milk or solid food - for 6 hours before the examination. No fizzy drinks, no gum.

Pelvis, Bladder, Kidneys (Renal).

The bladder should be full when this examination is done. Children who have bladder control should not empty their bladder for 1 hour before the ultrasound.

To ensure a full bladder:

0-2 years: give 6-8 oz clear fluid (not milk) 30 minutes before. Bring a bottle to feed while you are waiting.

3-7 years: give 8-16 oz (1-2 cups) clear fluid (not milk) 1 hour before the ultrasound.

8-12 years: give 16-25 oz (2-3 cups) clear fluid (not milk) 1 hour before the ultrasound.

Adolescents (13 years and over): give 24-40 oz (3-5 cups) clear fluid (not milk) 1 hour before the ultrasound.

Note: Your child may eat a normal diet.

Pyloric Canal (Hypertrophic Pyloric Stenosis).

Do not give any food or drink for 2 hours before the examination.

Are there any side/after effects?

None.

How do we get the results?

Once the radiologist has interpreted the images, a report is sent to the attending physician who will discuss the findings with you.

Arriving at the hospital.

- There is pay parking at the B.C.'s Children's Hospital. Please give yourself lots of time to find a space. The parking lots are always busy!
- You need to register at the Admitting Department before you come to the Radiology Department. You may need to wait for someone to help you there. You and your child will be more relaxed if you don't have to rush. Allow plenty time to get to your appointment.

Notes:
