

## BENEFITS & RISKS

### BENEFITS

Ultrasound is a very good option for viewing parts of the body that need to be examined because;

- it is non-invasive
- generally painless
- widely available
- cost-effective
- produces images in real-time, making it a good tool to guide biopsies and cyst drainages
- does not use radiation, making it ideal for use on children

### RISKS

- No known harmful risks have been identified for general ultrasound procedures.
- There are no known risks to pregnant women.



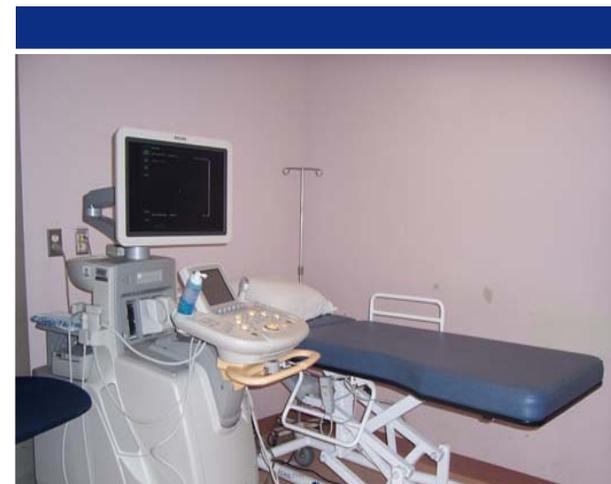
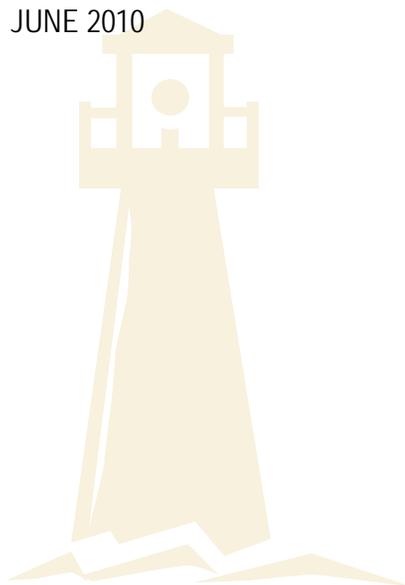
### FOR FURTHER INFORMATION

For more information on specific ultrasound examinations and procedures please visit:

[www.easternhealth.ca](http://www.easternhealth.ca)

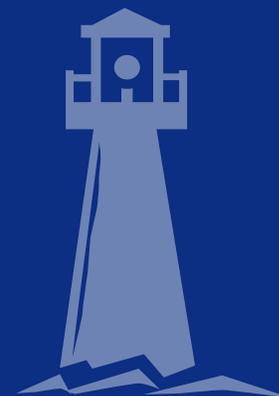
Go to the "Our Services" tab,  
Select "Diagnostic Imaging"

JUNE 2010



## ULTRASOUND

[www.easternhealth.ca](http://www.easternhealth.ca)



# ULTRASOUND

Ultrasound is performed by specially trained technologists called ultrasound technologists or sonographers.

Ultrasound uses high frequency sound waves to transmit images of internal organs and other fluid filled structures of the body. Sound waves are sent and received by a small, hand-held instrument called a transducer. The transducer is used to scan areas of the body. Sound waves bounce off solid internal objects, producing images of the internal structures on a computer screen.

Ultrasound is used to examine:

- Liver
- Gallbladder
- Spleen
- Pancreas
- Kidneys
- Bladder

Ultrasound is also used to:

- Assess fetal development.
- Evaluate internal functioning of the heart, blood vessels and arteries.
- Guide the insertion of needles and small instruments in a variety of procedures such as biopsies.

## PREPARATION

Preparation will vary by procedure. Instructions for preparation are specific to the examination you are booked for and will be included in the letter you

receive to advise you of your appointment date and time. The doctor who ordered your examination may also give you information about the required preparation.

Depending on the area to be examined you may have to:

- Drink several glasses of water before the procedure so that the bladder is full.
- Avoid certain foods such as fatty foods prior to the procedure or fast for eight to twelve hours.

Preparation information will be highlighted on your appointment letter. Prior to the examination, patients are asked to remove jewelry and metal objects and to wear a gown.

## PROCEDURE

- The patient lies on an examining bed.
- A water-based gel is spread over the area to be viewed.
- The technologist uses a transducer (a small hand-held instrument) to take pictures by moving the transducer over the area of the body being examined.
- Images are shown in real time on a monitor that looks like a computer or television screen.
- Since images are in "real time", the technologist and radiologists are able to see blood flow in vessels.
- Images can be video taped or frozen to capture still images.

The ultrasound procedure takes approximately 30-45 minutes to complete. The procedure is painless but patients may experience discomfort when a full bladder is required to exam the pelvic area.



Detecting heartbeat with doppler



## WHAT ARE THE LIMITATIONS OF ULTRASOUND?

Ultrasound cannot penetrate air, so gas in the stomach or bowels may limit visibility.

## WHO REPORTS THE TEST?

A radiologist - a specially trained doctor - sends a signed report within 10 business days to the doctor who ordered your test. You should follow-up with your doctor to discuss the results of your test.