

# Ultrasound Imaging

## University of Rhode Island BME 282

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Ultrasound imaging is now found throughout all the world for clinical use. The most important uses are for pregnancy to obtain the view of the fetus position and determine due date as well as check placenta position. It is also used to check for blood circulation and find tumors in ovaries or breast, measure blood flow in kidneys, and detect prostate cancer or kidney stones.

Ultrasound imaging is the process when a machine will send high sound impulses through a probe in which they travel through the body reaching a boundary or getting reflected. The machine then processes distance from the probe to tissue or organ using how fast each echo is and speed of light then making the image.

The future of ultrasound imaging seems promising. Advances hope to make ultrasound machines smaller with less sophisticated software making it easier to operate. Hopefully one day in the future, they will be able to also check osteoporosis through ultrasound and develop advanced

3-D imaging powerful enough to analyze plaque deposits in arteries to determine cardiovascular health.



■ <http://www.radiologyinfo.org/en/info.cfm?PG=genus>

■ <http://www.imaginis.com/ultrasound/>

■ <http://www.medicinenet.com/ultrasound/article.htm>

<http://www.howstuffworks.com/ultrasound.htm>