

# ULTRASOUND



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## WHAT IS ULTRASOUND?

Ultrasound creates images of the human body by sending high frequency sound waves into the area of interest and receiving echoes returning from the tissues. The sound waves are sent through a transducer (the part of the ultrasound system that touches you). The transducer is usually placed on the abdomen or pelvis to obtain diagnostic images.

The closer these sound waves are to the area of interest, the clearer and more detailed the resulting images. Because the uterus and ovaries lie deep beneath the abdominal surface, it can be difficult or impossible to obtain clear images of details only a few millimetres in size. The vaginal transducer brings the ultrasound beam very close to the uterus and ovaries, making it much easier to obtain detailed images. Thus, your doctor can often obtain more information from a vaginal scan than from scanning through the abdomen.

## WHAT WILL THE EXAMINATION BE LIKE?

You are probably wondering what an ultrasound examination with the vaginal transducer will be like. You need not be nervous about the examination being uncomfortable. In fact, most women find it more comfortable than an abdominal pelvic scan. It feels a little like a pap smear.

If you have been scanned with a transducer placed on the skin to the pelvis, you probably had to drink several glasses of water so your bladder would be fully distended during the examination. A full bladder is necessary to keep any bowel out of the ultrasound image since ultrasound does not "see" through bowel gas.

You were probably quite uncomfortable by the time the examination was complete. And it may have taken longer than it would have if your ovaries or uterus were closer to the ultrasound beam, where pictures would have been easier to obtain and interpret.

Many patients prefer examinations with the vaginal transducer because a distended bladder is not required. The transducer

is only about 2.0cm in diameter, and just the first 5 or 8cm, covered with a sterile sheath, are inserted into the vagina. As a result, it is more comfortable and less time-consuming than having an abdominal ultrasound scan.

## HOW DOES THE VAGINAL TRANSDUCER IMPROVE HEALTH CARE FOR WOMEN?

One special benefit of this new transducer is for women with infertility problems who are interested in Assisted Reproductive Programs. Before the vaginal transducer was available, many women were not accepted in these programs because their ovaries could not be adequately monitored using abdominal scanning. With the vaginal transducer, the doctor can more closely evaluate their ovaries, making many more women eligible for Assisted Reproductive programs.

Doctors use the vaginal transducer for many other types of examinations as well. These include checking for ectopic (tubal) pregnancies, evaluating first trimester pregnancies, and examining the ovaries of post-menopausal women for ovarian cancer.

