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## **TRANSVAGINAL ULTRASOUND**

**What is a transvaginal ultrasound examination?** Ultrasound is an imaging study which sends high frequency sound waves (or air waves) into the body and then captures the returning echoes to give a picture of the desired area. The sound waves are generated from a transducer or probe, which is the part of the instrument that touches the body. Transvaginal ultrasound uses a special transducer which is inserted into the vagina much like a small speculum.

**Why does this study have to be done with a vaginal transducer?** One of the principles of ultrasound is that the closer the transducer is to the area to be imaged, the clearer the picture will be. Transvaginal ultrasound is now widely recognized as the best procedure for visualizing the uterus and ovaries in women who are less than three months pregnant, and for all infertility treatments. This technique has revolutionized the treatment of infertility in such areas as ovulation induction and in vitro fertilization (IVF). It is also the best technique for studying other pelvic pathology such as uterine fibroids, pelvic pain, ovarian tumors, or ectopic (tubal) pregnancies.

**How is the examination performed?** A protective cover is placed over the vaginal transducer and it is then inserted gently into the vagina. The physician or sonographer will rotate the transducer to get the best picture of your pelvic anatomy. Pictures are generated on a computer screen and can also be printed as permanent copies. The whole examination usually takes only a few minutes to complete.

**Is transvaginal ultrasound an uncomfortable exam?** No. The diameter of the ultrasound probe used for this exam is smaller than the speculum that we use for Pap smears. Sound waves are painless and it is not necessary to have a full bladder for this procedure. The majority of our patients tell us that this is a very easy examination. Vaginal ultrasound should be more comfortable than abdominal ultrasound because your bladder is empty for the study.

**Are ultrasound examinations expensive?** Although ultrasound is easy and painless, the equipment is “high tech” and is very expensive. Each ultrasound machine is actually an advanced computer combined with a sophisticated machine to send and receive sound waves and turn them into pictures. Ultrasound is actually very cost effective when compared to other radiologic procedures such as CAT scans and MRI.

**Are there any risks of ultrasound?** Ultrasound has been used routinely in many fields of medicine over the past 25 years. Today, almost all women have ultrasound examinations at some stage during pregnancy. Although very high frequency sound waves can damage tissue by creating heat, the frequencies used for diagnostic ultrasound are much lower and have been found to be very safe in extensive animal and human studies.