

TRANSVAGINAL PELVIC SONOGRAM

Recommended Transducer: GE or Acuson transvaginal probes

Start the exam with a transabdominal pelvic sonogram. A full bladder is not required for this exam. Measure the uterus and ovaries (see "TRANSABDOMINAL PELVIC ULTRASOUND"). Survey the entire pelvis, in both the sagittal and transverse planes, for any pathology. If a very large mass is found, the transvaginal exam may not be indicated. Otherwise, have the patient completely empty her bladder and proceed with the transvaginal sonogram.

A transvaginal sonogram should not be performed on a minor without verbal consent from a parent/legal guardian or on any patient who is not sexually active and/or has refused the exam.

Explain the steps involved in the transvaginal exam before beginning to get verbal consent from the patient for this exam.

The vaginal transducer may be introduced by the patient, the sonographer, or the sonologist. A female department employee should be present in the examining room during a transvaginal sonogram, either as an examiner or a chaperone. All male sonographers or sonologists are required to have a female, employed by the department or hospital, as a chaperone during the entire transvaginal exam. The chaperone's name should be documented in the Tech. Comments in Radplus for any future reference.

Position: Supine with feet placed in stirrups or with the pelvis elevated.

Uterus

Sagittal

- Mid segment
- Both lateral segments
- Mid segment with longitudinal measurement. Measure the long axis from the fundus to the inferior tip of the cervix. In an ante or retroflexed uterus, segmental measurements may be needed. Measure the "AP" dimension, i.e. the largest distance between the anterior and posterior margins of the uterus perpendicular to its long axis.
- Uterus with endometrial stripe. Measure the thickness of the stripe between the two outer echogenic borders. If present, the ill-defined hypoechoic rim around it should not be included in the measurement. If fluid is present in the in the endometrial cavity, measure each side of the stripe, then add the two for a composite endometrial measurement. The endometrium should also be analyzed for its echogenicity, position with in the uterus, uniformity and masses.

Transverse Uterine cervix and cul-de-sac.
Lower uterine segment.
Mid uterine body.
Transverse measurement of the uterus. The largest width of the uterine body.
Uterine fundus.

The entire uterus, including the cervix should be evaluated for contour changes, echogenicity, and masses. To image the entire cervix and the cul-de sac, retract the transducer tip out of posterior fornix. The cul-de-sac should be evaluated for the presence of free fluid or a mass. If a mass is detected, its size, position, shape, echo pattern and relationship to the uterus and ovaries should be documented. Be sure to differentiate between normal loops of bowel and a mass.

Ovaries

On a sagittal image, measure the longest axis and the widest dimension perpendicular to it. On a transverse image measure the longest axis.

Especially in post menopausal patients the ovaries may not be clearly visible. If this is the case, survey the ovarian bed in both planes. On the transverse plane, take images of the uterine fundus and the external iliac vessels as landmarks. On the sagittal plane, take an image of the iliac vessels. Remember that the location of the ovaries can be ectopic. If none is seen in the usual location survey the entire adnexal area, the cul-de-sac and around the uterine fundus.

Survey the entire area of both adnexa for abnormalities. If present, varices should be confirmed with color Doppler. If an adnexal mass is noted, its relationship to the ovaries and uterus should be documented. Its size, echo pattern and vascularity should be determined. Determine the pulsatility index of any flow in the mass.

Notice any tenderness during the examination and report it to the radiologist.