

## Womens Imaging, Us Imaging for Infertility Workup

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### Abstract

Infertility can be defined as the inability to conceive a pregnancy after 1 year of unprotected intercourse or after 6 months in a woman over 35 years old. The use of sonography, in particular transvaginal sonography (TVS), has become an integral component of the evaluation and treatment of infertility. The TVS allows high-resolution assessment of the uterus, ovaries, and fallopian tubes. TVS plays a critical role in the diagnosis and treatment of infertile women. Initial baseline ultrasound examination is used primarily to identify structural abnormalities that might affect fertility such as uterine anomalies, endometrial polyps or submucosal leiomyomas, endometrial adhesions/synechia, or hydrosalpinges. Sonography is also used to assess for possible underlying pathologic processes associated with infertility such as adenomyosis, endometriosis, polycystic ovary syndrome (PCOS), and low antral follicular count. If the baseline pelvic sonogram is inconclusive or noncontributory, further anatomic evaluation can be obtained by means of pelvic magnetic resonance imaging (MRI), hystero-graphy, sonohystero-graphy, or even hysteroscopy and laparoscopy, as indicated. CT and MRI play essential roles in evaluating gynecological disease. With the advent of multidetector CT faster scanning during optimal vascular opacification is now available which may improve accuracy in the detection and staging of gynecologic disease. However due to multiplanar capability and excellent tissue contrast, MRI is the preferred imaging modality of the female pelvis in many instances. Hysterosalpingography (HSG) is a valuable technique in evaluating the uterus and fallopian tubes. Contrast material introduced into the uterus through the cervical canal outlines the inner cavity of the uterus and tubes. A spill of contrast material into the peritoneal cavity reveals the patency of the fallopian tubes.

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