TRA MEDICAL IMAGING
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Ultrasound Protocol: Female Pelvis Complete

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Last Reviewed: 10/8/2024 Link to: General Imaging Requirements and Pathology Protocol PDF

List of Required Images

Uterus

- **Sagittal**
  - At least four gray scale images to include:
    - Mid with and without measurements length and height (AP), includes cervix
    - Right lateral
    - Left lateral
  - CINE sagittal uterus Rt-Lt
- **Transverse**
  - At least five gray scale images to include:
    - Cervix
    - Lower uterine segment
    - Body with and without measurement width
    - Fundus
  - CINE transverse uterus cervix-fundus
- Endometrium sagittal mid with and without measurement maximum AP
- Endometrium sagittal mid with color Doppler
- If machine is capable; include additional 3D image to demonstrate position of IUD, uterine configuration anomalies, and/or endometrial/submucosal lesions

Ovaries

All images to be included on both right and left (at least 7 each)

- **Sagittal** - mid with and without measurements length and height (AP)
  - One additional distinctly different gray scale image without calipers or Doppler
- **Transverse -** mid with and without measurement width
  - One additional distinctly different gray scale image without calipers or Doppler
- Color Doppler image in either sagittal or transverse

Adnexa

- Representative image of the right adnexa in either sagittal or transverse
- Representative image of the left adnexa in either sagittal or transverse
- Representative image of the posterior cul-de-sac in sagittal

See the following Specific Considerations for the Gynecological Protocol on next page.
For general pathology, use the Pathology Protocol.

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Specific Considerations for the Gynecological Protocol

- **Guidelines regarding Transabdominal and Transvaginal Approaches:**
  - Transabdominal: Full Bladder. Attempt to visualize all structures TA
  - Transvaginal: Empty Bladder**.** Attempt to visualize all structures TV
  - Most examination will be TA & TV. In a majority of cases, TV imaging will be needed to visualize any structures that are not adequately visualized TA.
  - "TV only" can be performed if ordered by a clinician
  - TV imaging should not be performed if declined by the patient, in pediatric/not sexually active patient, or in patients who have had a vaginal or caesarian delivery within 6 weeks (or discussed with radiologist or specifically requested by the obstetrician).
  - When the sonographer believes structures to be optimally visualized transabdominally, clearance must be given by the radiologist prior to release of the patient.
- **Fibroids:**
  - **Measure up to 3 most significant fibroids.**
  - "Significant" fibroids: (1) Submucosal (2) Follow-ups (3) Unusual appearance (4) Largest. If more than 3 are determined to be "significant" by the tech at time of scanning per the criteria above, up to 5 can be documented
- **Patient Bladder Prep Guidelines**: See chart and recommended counseling guide on next page
- **Congenital Uterine Anomalies:** See diagram at end of document

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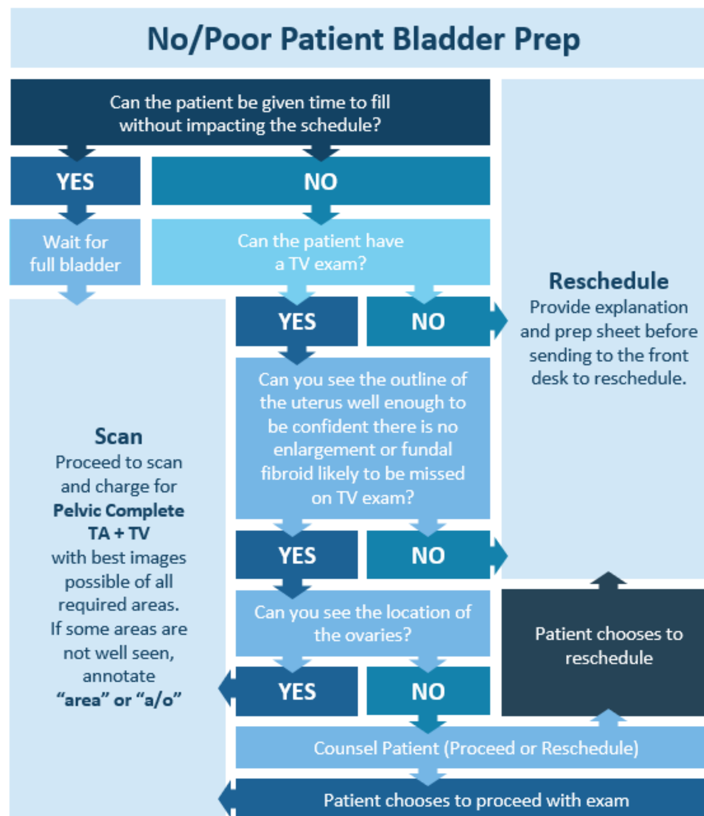
Patient Bladder Prep Guidelines



Counsel patient on choice to proceed or reschedule.

In an ideal scenario, we would use both transabdominal and transvaginal techniques for your pelvic ultrasound. The transabdominal views give us a global look at your uterus, ovaries, and the surrounding area – sort of a "lay of the land" – without much detail. The transvaginal views allow us to look at these structures in more detail, however is limited in depth, so we are not always able to get that "global view." Seeing your anatomy from both angles allows us the best at chance determining the cause of your symptoms.

A full bladder for the transabdominal portion of this exam is important and serves two purposes: 1. it pushes your intestines out of the way, and 2. It pushes your uterus into a better angle. Both of these things help us get a better global view. Your bladder is not full enough today to do this. You have two choices for how you would like to proceed:

A) We can reschedule the exam to another day and have you attempt to fill your bladder again. There will be no images saved today and this exam will not be charged.
B) We can proceed with the exam today and take all images as best possible without a full bladder.

The transvaginal portion of the exam alone may be successful and see all structures well, but we can't tell beforehand. There is a chance all the required structures will not be seen well enough to aid your diagnosis; if that were to happen, you and your provider would decide if you should return for another study. A second study on another day would be a newly billed exam in addition to this one.

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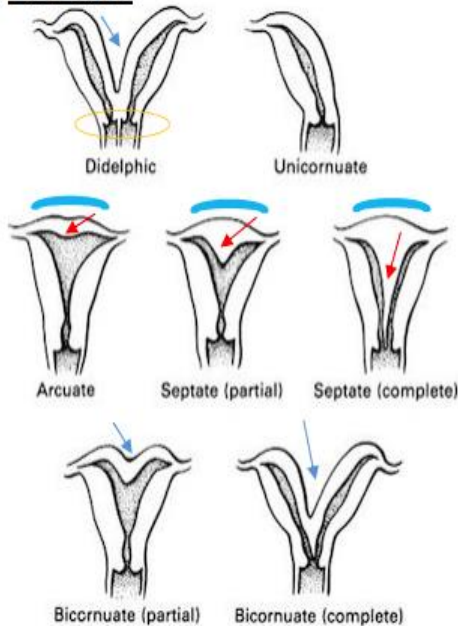
Uterine Morphology: Congenital Uterine Anomalies

DIAGRAM



External contour
Convex, flat or indented < 10 mm = arcuate or septate
Endometrium concave < 10 mm = arcuate

Endometrium concave > 15 mm = septate
Endometrium concave 10-15 mm = arcuate vs. septate

Concave > 10 mm = bicornuate or didelphys

COMMENTS:

→ **Arcuate** morphology is a normal variant that requires no treatment and has no effect on fertility
Appearance: Mild indentation of the fundal endometrium with smooth overlying external uterine contour.

→ **Septate** configuration is a uterine anomaly that may require surgical treatment and has potential significant
effect on fertility (anomaly most associated with spontaneous first trimester abortion)
Appearance: Significant indentation of the fundal endometrium with smooth overlying contour
- Septum may continue into the endometrial canal, cervix and vagina
- Septum may be fibrous or muscular (looks like myometrium)

It is very important to differentiate arcuate morphology from true septate configuration as these entities have very different effects on fertility and clinical management

- → **Bicornuate**: indented outer contour (>10 mm) with 2 separate uterine horns that join at some point
  Bicornuate bicollis = 2 cervices (difficult to differentiate from didelphys uterus)
- → **Didelphys**: indented outer contour (>10 mm) with 2 *widely* divergent separate uterine horns that do not join
  Appearance: Always 2 separate cervices

Common Indications for Female Pelvis Ultrasound

• Pelvic pain • Pelvic masses • Abnormal bleeding • Dysmenorrhea