

FALLOPIAN TUBES

1) **Other Names:** (Curry-Tempkin, p. 261, 1/2/1)

- Uterine tubes
- Oviducts

2) **Definition/Location:**

- The fallopian tubes are coiled, muscular tubes that open into the peritoneal cavity at their lateral end (Hagen-Ansert, p. 864, 2/2/1).
- They course within the peritoneum along the superior free margin of the broad ligaments until they reach the ovaries (Curry-Tempkin, p. 261, 1/2/2).
- The fallopian tube conducts a mature ovum from the ovary to the uterus through gentle peristalsis of its smooth muscle walls (Curry-Tempkin, p. 261, 1/3/1).
- The fallopian tubes are divided into the infundibulum, ampulla, isthmus, and interstitial portion (Hagen-Ansert, p. 864, 2/3/1).
- The infundibulum is the wide, lateral segment of the fallopian tube. It is often referred to as the fimbriated end of the fallopian tube because it contains fingerlike extensions called fimbriae (Hagen-Ansert, p. 864, 2/3/3).
- The ampulla is the longest and most coiled portion of the fallopian tube and is the area in which fertilization of the ovum most often occurs (Hagen-Ansert, p. 865, 1/1/1).
- The isthmus is the medial segment of the fallopian tubes (Hagen-Ansert, p. 864, 2/3/1).
- The interstitial portion is the narrowest segment of the fallopian tubes (Hagen-Ansert, p. 864, 2/3/2).

3) **Ultrasound Appearance:** (Curry-Tempkin, p. 283, 1/2/1)

- The fallopian tubes are usually not seen unless there is free fluid in the lateral pelvic recesses or tubal pathology.
- The infundibulum, ampulla, and isthmus cannot be identified sonographically.
- The interstitial portion of the fallopian tubes can be imaged with transvaginal sonography. It appears as a 1 cm long, tenuous, echogenic line arising from the endometrial canal and extending through the uterine wall.

4) **Normal Size Ranges:**

- The fallopian tubes are approximately 10 to 12 cm in length and 1 to 4 mm in diameter (Hagen-Ansert, p. 864, 2/2/2).
- The fallopian tubes vary in length from 7 to 12 cm (Curry-Tempkin, p. 261, 1/2/2).
- The width of the fallopian tubes are 8 to 10 mm (Hagen-Ansert, p. 893, 1/2/2).

5) Pertinent Lab Data:

- N/A

6) Patient Preparation: (Tempkin, p. 186, “Patient Prep”)

- Full urinary bladder.
- Thirty-two to forty ounces of clear fluid should be ingested one hour before the exam and finished within a fifteen to twenty minute time period.
- If for any reason the patient cannot have fluids, sterile water can be used to fill the bladder through a Foley catheter.

7) Transducer (Probe) Frequency: (Tempkin, p. 186, “Transducer”)

- 3.0 MHz or 3.5 MHz
- 5.0 MHz for thin patients

8) Protocol: (Hagen-Ansert, p. 893, 1/2/1)

- The fallopian tubes are usually not seen sonographically unless pathology is present.
- If pathology is present, document in two planes.

9) Image Reference:

- Hagen-Ansert, p. 860, fig 35-10
- Hagen-Ansert, p. 862, fig 35-11
- Hagen-Ansert, p. 863, fig 35-12
- Hagen-Ansert, p. 865, fig 35-15
- Hagen-Ansert, p. 894, fig 36-39A

10) References:

- Curry, R.A. and Tempkin, B.B. (2004). Sonography: Introduction to normal structures and function (2nd ed.). St. Louis, MO: Saunders
- Hagen-Ansert, S.L. (2006). Textbook of diagnostic ultrasonography (6th ed.)(Vol. 1). St. Louis, MO: Mosby.
- Tempkin, B.B. (1999). Ultrasound scanning: Principles and Protocols (2nd ed.). Philadelphia, PA: Saunders.