

Pedi Upper GI:

PRIOR TO THE EXAM: Confirm baby has an NG/OG tube (if no tube ask NICU or peds service to place one prior to transport to Fluoroscopy. If patient is in the ED and they do not want to place a tube consider placing NG tube under fluoro. Fill a 6 F tube with contrast prior to placing it to make it easier to see under fluoro. NG tube allows decompression of the stomach and easy administration of contrast. This can be done with a bottle but in an urgent or emergent setting/vomiting patient NG tube makes study much easier.

TYPE OF CONTRAST MATERIAL: Omnipaque 300 (or whatever is used for IV CT contrast locally - not diluted) for acute scenario such as r/o mid gut volvulus, r/o obstruction in the immediate postop period (ex: postop small bowel resection), concerns for bilious vomiting (may need to go to OR quickly and/or be perforated), high risk for aspiration. Barium for non-acute setting for anatomy evaluation/pre-G Tube etc.

LIMITED UGI to r/o Malrotation/volvulus:

Scout image with baby AP, confirm NG/OG in stomach.

Give a few ml contrast to fill the fundus of the stomach and take AP image.

Turn baby RIGHT lat decub and wait for contrast to empty from stomach through duodenal bulb and fill proximal duodenum. With normal rotation contrast will course posterior and then second portion of duodenum will descend along the spine. Take image (see A below).

Often contrast will hang up at the right of the spine in proximal duodenum.

Quickly turn baby AP and contrast should flow to 3rd and 4th portion of duodenum to the left of the spine at the level of the duodenal bulb. Put baby AP and take image to document normal course of duodenum (see B below).

Turn baby LEFT lateral decub and take one more image (see C below).

*Contact the Peds Rad with questions or issues; there is a peds rad available 24/7/365.

TA's can find which of us is working (5-12 rad, overnight rad, or if on the weekend during day one of us working too).



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Protocol Updated: 12/2025

Normal position of the duodenojejunal junction (DJJ, ligament of Treitz) on standard views from a UGI. **A**, Lateral view shows antrum (*A*), duodenal bulb (*B*), and duodenal sweep (*D*). Note that the duodenum normally extends posteriorly and inferiorly during the retroperitoneal course. **B**, Frontal view obtained during first pass shows the DJJ (*arrow*) identified by the point in the bowel that angles inferiorly. The DJJ is normally to the left of the spine and at the same level (superiorly to inferiorly) as the level of the duodenal bulb. **C**, Oblique view of patient with left side down again shows the level of the DJJ (*arrow*) at the level of duodenal bulb and proximal jejunum in left upper quadrant.

Donnelly, LF. *Fundamentals of Pediatric Imaging*. 2nd Edition. Elsevier; 2017.