Reading Hospital School of Health Sciences 7/22/2021 CNW
Medical Imaging Program
MI 263: Clinical Seminar V

Esophagus/Barium Swallow

Routine: RAO (PA Oblique) - can be done LPO

Position/Projection RAO (PA Oblique)

Patient Prep: Remove everything from the waist up. Ensure no earrings, necklaces etc.

Technique: **120 kVp ○●○; non AEC 6 mAs (Bucky)**

SID: 40" SID *(1100 on Shimadzu equipment)*

Collimation: 12X17

Patient Position: Place patient prone, right arm by side and left arm up. Rotate patient **35 - 40°** onto right side**,** having them bend left knee for support. Left shoulder and left hip in same plane. Patient uses left hand to hold barium cup to drink with straw.

Central Ray: Center to the image receptor. This should bring you to about T5-6. Then center 2" from the spine, towards the left side of patient (elevated side). Esophagus lies slightly anterior to EAM. **Cassette Placement:** Place top of image receptor to level of mouth (not the light field!).

Marker Placement: Right marker, on the right side down.

Shielding: Gonadal shielding required

Breathing Instructions: N/A

Drinking Instructions: Drink continuously until you expose (give about 3 seconds).

Purpose/Structures: Contrast medium-filled esophagus from the lower part of the neck to the esophagogastric junction**.**

Evaluation Criteria:
- Evidence of proper collimation and presence of side marker placed clear of anatomy of interest
- Esophagus from the lower part of the neck to its entrance into the stomach
- Esophagus filled with barium
- Penetration of the barium
- Esophagus between the vertebrae and the heart

Charges: FL Pharynx/Cervical Esophagus (images cervical esophagus)
FL Esophagus (images entire esophagus)

Upper GI (Single Contrast)

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**Scout image does not need to include symphysis*

Routine:	Scout, PA, RAO, Right Lateral
Position/Projection:	**Prone (**PA)
Patient Prep:	Remove everything except shoes socks and underwear. Ensure no body jewelry or metal on underwear.
Technique:	**120 kVp ○●○ ; non AEC 5 mAs (Bucky)**
SID:	40" SID *(1100 on Shimadzu equipment)*
Collimation:	14X17 Portrait
Patient Position:	Patient prone. Make sure patient is completely flat, and not rotated. Arms up helps this.
Central Ray:	**RH:** 4" above the crest for average size patient; just sl*ightly* left of the midline. **Merrill's:** 1 to 2 inches above the lower rib margin at the level of L1-L2
Marker Placement:	Right or Left marker on the appropriate side.
Shielding:	Gonadal shielding required
Breathing Instructions:	Suspended Expiration
Purpose/Structure:	Barium-filled stomach and duodenal bulb**.**

Evaluation Criteria:
- Evidence of proper collimation and presence of side marker placed clear of anatomy of interest
- Entire stomach and duodenal loop
- Stomach centered at the level of the pylorus
- No rotation of the patient
- Penetration of the contrast medium
- Surrounding anatomy
- Best to see **body** of stomach; **medial, lateral margins**

Special Note:
- Merrill's recommends centering about 1-2 inches above the lower rib margin at the level of L1-2 and the midline of the grid coincides with a sagittal plane passing halfway between the vertebral column and the left lateral border of the abdomen.
- Can be performed as AP if patient is unable to lay prone
- Centering changes a bit for body habitus:

- Hypersthenic - center slightly higher than for average size
- Hyposhtenic/Asthenic - center slightly lower than for average size

Charges: FL UPPER GI W/WO KUB SINGLE CONTRAST

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Upper GI (Single Contrast)

Routine: Scout, PA, RAO, Right Lateral

Position/Projection: RAO (PA Oblique)

Patient Prep: Remove everything except shoes socks and underwear. Ensure no body jewelry or metal on underwear.

Technique: **120 kVp ○●○; non AEC 7.5 mAs (Bucky)**

SID: 40" SID *(1100 on Shimadzu equipment)*

Collimation: 11X14 Portrait

Patient Position: Place patient prone, right arm by side and left arm up. Rotate patient onto right side, having them bend left knee for support. Left shoulder and left hip in same plane. The patient will be rolled anywhere from 40 - 70°, depending on body habitus. Average sized patient roll 45°.

Central Ray: **RH:** 4" above the crest for average size patient; Bisect spine and lateral border of elevated side. Light should just be skimming down elevated side – if too much light is seen on table, center more posteriorly to get rid of the 'dead' space.
Merrill's: 1 to 2 inches above the lower rib margin at the level of L1-L2

Marker Placement: Right marker on posterior side of patient.

Shielding: Gonadal shielding required

Breathing Instructions: Suspended Expiration

Purpose/Structures: A PA oblique projection of the stomach and entire duodenal loop**.**

Evaluation Criteria:

- Evidence of proper collimation and presence of side marker placed clear of anatomy of interest
- Entire stomach and duodenal loop
- No superimposition of the pylorus and duodenal bulb
- Duodenal bulb and loop in profile
- Stomach centered at the level of the pylorus
- Penetration of the contrast medium
- Surrounding anatomy
- **Best view to see the duodenal bulb filled with barium.**

Special Note:

- Merrill's recommends centering about 1-2 inches above the lower rib margin at the level of L1-2 and the sagittal plane passing midway between the vertebrae and the lateral border of the elevated side coincides with the midline of the grid.
- Can be performed as LPO if patient is unable to do RAO position
- Centering changes a bit for body habitus:
    - Hypersthenic - center slightly higher than for average size
    - Hyposthenic/Asthenic - center slightly lower than for average size

Charges: FL UPPER GI W/WO KUB SINGLE CONTRAST

<u>Upper GI (Single Contrast)</u>

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Routine: Scout, PA, RAO, Right Lateral

Position/Projection: Right Lateral

Patient Prep: Remove everything except shoes socks and underwear. Ensure no body jewelry or metal on underwear.

Technique: **120 kVp ○●○; non AEC 15 mAs (Bucky)**

SID: 40" SID *(1100 on Shimadzu equipment)*

Collimation: 11X14 Portrait

Patient Position: Patient on right side. Make sure hips are superimposed and back is in true lateral. Patient will have to bend their knees for stability. Arms up.

Central Ray: **RH:** 4" above the crest for average size patient**
Bisect axillary line & anterior abdomen.
Light should <u>skim</u> patient's abdomen. If there is too much light in front of patient, then center more posteriorly to get rid of 'dead' space.
Merrill's: Level of L1-L2 (1-2 inches above the lower rib margin)

Marker Placement: Right marker on posterior side of patient.

Shielding: Gonadal shielding required

Breathing Instructions: Suspended Expiration

Purpose/Structures: Anterior and posterior aspects of the stomach, the pyloric canal, and the duodenal bulb**.**

Evaluation Criteria:
- Evidence of proper collimation and presence of side marker placed clear of anatomy of interest
- Entire stomach and duodenal loop
- No rotation of the patient, as shown by the vertebrae
- Stomach centered at the level of the pylorus
- Penetration of the contrast medium
- Surrounding anatomy
- Best to see the **retrogastric area and loop in profile; anterior, posterior margins.**

Special Note:

- Merrill's recommends centering about 1-2 inches above the lower rib margin at the level of L1-2 and adjust the body so that a plane passing midway between the midcoronal plane and the anterior surface of the abdomen coincides with the midline of the grid.
- Can be performed as Left Lateral if patient is unable to perform Right Lateral position
- Centering changes a bit for body habitus:
    - Hypersthenic - center slightly higher than for average size
    - Hyposthenic/Asthenic - center slightly lower than for average size

Charges: FL UPPER GI W/WO KUB SINGLE CONTRAST

Upper GI (Double Contrast)

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**Scout image does not need to include symphysis*

Routine:	Scout, PA, Right Lateral
Position/Projection:	**Prone (**PA)
Patient Prep:	Remove everything except shoes socks and underwear. Ensure no body jewelry or metal on underwear.
Technique:	**90 kVp ○●○ ; non AEC 5 mAs (Bucky)**
SID:	40" SID *(1100 on Shimadzu equipment)*
Collimation:	14X17 Portrait
Patient Position:	Patient prone. Make sure patient is completely flat, and not rotated. Arms up helps this.
Central Ray:	**RH:** 4" above the crest for average size patient; just sl*ightly* left of the midline. **Merrill's:** 1 to 2 inches above the lower rib margin at the level of L1-L2
Marker Placement:	Right or Left marker on the appropriate side.
Shielding:	Gonadal shielding required
Breathing Instructions:	Suspended Expiration
Purpose/Structure:	Barium-filled stomach and duodenal bulb**.**

Evaluation Criteria:
- Evidence of proper collimation and presence of side marker placed clear of anatomy of interest
- Entire stomach and duodenal loop
- Stomach centered at the level of the pylorus
- No rotation of the patient
- Penetration of the contrast medium
- Surrounding anatomy
- Best to see **body** of stomach; **medial, lateral margins**

Special Note:
- Merrill's recommends centering about 1-2 inches above the lower rib margin at the level of L1-2 and the midline of the grid coincides with a sagittal plane passing halfway between the vertebral column and the left lateral border of the abdomen.
- Can be performed as AP if patient is unable to lay prone
- Centering changes a bit for body habitus:
    - Hypersthenic - center slightly higher than for average size

- Hyposhtenic/Asthenic - center slightly lower than for average size

Charges: FL UPPER GI W/WO KUB W DOUBLE CONTRAST

Upper GI (Double Contrast)

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Routine: Scout, PA, Right Lateral

Position/Projection: Right Lateral

Patient Prep: Remove everything except shoes socks and underwear. Ensure no body jewelry or metal on underwear.

Technique: **90 kVp ○●○; non AEC 15 mAs (Bucky)**

SID: 40" SID *(1100 on Shimadzu equipment)*

Collimation: 11X14 Portrait

Patient Position: Patient on right side. Make sure hips are superimposed and back is in true lateral. Patient will have to bend their knees for stability. Arms up.

Central Ray: **RH:** 4" above the crest for average size patient**
Bisect axillary line & anterior abdomen.
Light should skim patient's abdomen. If there is too much light in front of patient, then center more posteriorly to get rid of 'dead' space.
Merrill's: Level of L1-L2 (2.5" above the lower rib margin)

Marker Placement: Right marker on posterior side of patient.

Shielding: Gonadal shielding required

Breathing Instructions: Suspended Expiration

Purpose/Structures: Anterior and posterior aspects of the stomach, the pyloric canal, and the duodenal bulb**.**

Evaluation Criteria:
- Evidence of proper collimation and presence of side marker placed clear of anatomy of interest
- Entire stomach and duodenal loop
- No rotation of the patient, as shown by the vertebrae
- Stomach centered at the level of the pylorus
- Penetration of the contrast medium
- Surrounding anatomy
- Best to see the **retrogastric area and loop in profile; anterior, posterior margins.**

Special Note:

- Merrill's recommends centering about 1-2 inches above the lower rib margin at the level of L1-2 and adjust the body so that a plane passing midway between the midcoronal plane and the anterior surface of the abdomen coincides with the midline of the grid.
- Can be performed as Left Lateral if patient is unable to perform Right Lateral position
- Centering changes a bit for body habitus:
    - Hypersthenic - center slightly higher than for average size
    - Hyposthenic/Asthenic - center slightly lower than for average size

Charges: FL UPPER GI W/WO KUB W DOUBLE CONTRAST

Timed Esophagus Procedure

Purpose of exam: to evaluate esophageal emptying with patients with a diagnosis of achalasia and to follow-up those who have been treated with pneumatic dilatation or Heller myotomy

Prep: NPO after midnight

Contrast: Liquid EZ Paque 60% w/v for oral administration

Supplies:

Stopwatch
Napkin for patient
Radiopaque ruler
Water

Room set up: patient information/verification; procedure technique verification. Correct patient information displayed on monitor, footboard securely positioned on tabletop

Technologist Responsibilities: screening form and tech navigator in EPIC

Procedure:

- Pt erect on footboard
- Patient erect on footboard LPO with radiopaque ruler taped to table to the right of the esophagus
- Patients are instructed to drink up to 150 ml liquid EZ paque 60% w/v within 30-45 seconds. The volume ingested is based on the patient's tolerance, but the same volume should be used on all follow-up timed esophagrams
- Images of the entire esophagus are obtained immediately after consuming barium, 1, 2, 5 minute intervals. (if barium completely clears from esophagus on the 2 minute images the 5 minute image may be omitted

Additional Notes:

- *You will receive an order for an Esophagus but in the comments it will be stated "Timed Esophogram".*
- *Study will generally be ordered by Digestive Disease or CT Surgery (Dr. Dasikas group)*

9/10/18

Bariatric Fluoro Protocols

Types:

- Post Gastric Bypass
  - Roux-N-Y Gastric Bypass, Long Limb Gastric Bypass, Post Vertical Band Gastroplasty
- Post Gastric Banding
- Post Gastric Sleeve
  - Vertical Gastric Sleeve
- Post Gastric Sleeve with Duodenal Switch
  - Vertical Gastric Sleeve

Variations in Procedures:

- Scout images are taken of the high abdomen (to include diaphragm)

- Procedures begin with Omnipaque or Barium in medicine cups
  - If surgery was within 6 months, Omnipaque 240 and Water is mixed
  - If surgery is greater than 6 months out, Liquid EZ Paque
    - Post Gastric Bypass – 20cc
    - Post Gastric Banding – 20cc
    - Post Gastric Sleeve – 40cc
    - Post Gastric Sleeve with Duodenal Switch – 40cc

- The Radiologist Assistant will have the patient drink the remaining Liquid EZ Paque through a straw in the RAO position.

- Post Procedure images may be required dependent on the type of bariatric surgery
  - Post Gastric Bypass – AP or PA abdomen (to include GE junction and Small Bowel)
  - Post Gastric Banding – PA, RAO, Right Lateral
  - Post Gastric Sleeve – AP or PA abdomen (to include GE junction, stomach and duodenum) RAO and Right Lateral
  - Post Gastric Sleeve with Duodenal Switch – AP or PA abdomen (to include GE junction, stomach and duodenum) RAO and Right Lateral

*****Refer to the Fluoro Bible for more detail and up-to-date information*****

Esophagus/Barium Swallow

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Room Set up:

All appropriate supplies and contrast available
Table upright (no scout) with sheet tucked and taped.
Fluoroscopy procedure selected on console
Patient Information entered onto screen
Verify orders, allergies, medication list, Medicare

Patient Preparation:

Everything off from the waste up
Artifacts!! Remove: earrings, necklaces, bra etc

Contrast and Supplies:

Single Contrast

- ½ bottle (8oz) of liquid EZ Paque
  - not refrigerated
  - place a straw in cup
- 1 EZ-Disk
- Cup of water

Double Contrast

- ½ bottle (8 oz) of liquid EZ Paque
  - not refrigerated
  - place a straw in cup
- 1 packet of EZ-Gas
  - Medicine cup filled to 10cc with water
- 1 bottle of EZ-HD (If swallowing exercises required; have a 2nd bottle available)
  - mix 5 minutes prior to start of procedure
  - don't pour until ready
- 1 EZ-Disk
- Cup of water
- Napkin

Pharynx and/or Cervical Esophagus

- 1 bottle of EZ HD

Patient History:

Complete Screening Form
Ask additional history
Verify allergies and medication list
Begin the procedure in EPIC

RT Role during Exam:

Assist the Radiologist Assistant by handing them the supplies as needed. Assist the patient by helping them to roll, holding the barium cup while they drink, if necessary. Remove head pillow when patient is in erect position and give back to them when table is supine.

Esophagus/Barium Swallow

RT Role during Exam: Change technical factors as required.
Overhead image taken, if needed.
- **RAO**

Exam Routine: EZ- Gas mixture
EZ-HD (in left hand).
After upright images, the Radiologist Assistant will lay the table down. Make sure to give the patient the head pillow and a napkin.
Liquid EZ Paque barium through straw
Overhead RAO (if needed)
Fluoro in supine position
EZ-Disk in upright position with cup of water

Post Exam: Barium contrast post procedure form
- Print out and explain form to patient
- Have patient print and sign and RT print and sign
- Scan form into computer
- Give form to patient to take with

Scan in all appropriate documents
Document # of images in all fluoro series
Document Fluoro Time
Document Air Kerma
Send images to PACS
Rad Reserve images
End the procedure in EPIC
- Document tech, student, Radiologist Assistant and MD

Place all appropriate paperwork in Radiologist Assistant bin

Additional Note: EZ-HD can only be used on patients 12 years and older

Room Set up:

All appropriate supplies and contrast available
Table supine, sheet tucked and taped
Console set up for the AP Scout image
Balloon Paddle and
Wooden Compression Paddle (for single contrast studies)
Footboard locked
Patient Information entered onto screen
Verify orders, allergies, medication list, Medicare

Patient Preparation:

Everything off except shoes, socks and underwear
Provide patient with 2 gowns
Artifacts!! Remove: earrings, necklaces, bra etc

Contrast and Supplies:

Single Contrast

- 1 bottle (16 oz) of liquid EZ Paque
  - not refrigerated
  - place a straw in cup
- Napkin
- Compression paddle

Double Contrast

- ½ (8oz) bottle of liquid EZ Paque
  - not refrigerated
  - place a straw in cup
- 1 packet of EZ-Gas
  - Medicine cup filled to 10cc with water
- 1 bottle of EZ-HD
  - mix 5 minutes prior to start of procedure
  - don't pour until ready
- Napkin
- Compression paddle

Patient History:

Complete Screening Form

- Verify patient has been NPO since midnight

Ask additional history
Verify allergies and medication list
Begin the procedure in EPIC

RT Role during Exam:

Scout film -abdomen AP; Shield males.
Table upright after scout & set for digital record.
Show Radiologist Assistant scout.
Assist the Radiologist Assistant by handing them the supplies as needed.

Upper GI

RT Role during Exam: Assist the patient by helping them to roll, holding the barium cup while they drink, if necessary. Remove head pillow when patient is in erect position and give back to them when table is supine.
Change technical factors as required.
Overhead images.

- **Single contrast** – PA, RAO, Right Lateral
- **Double contrast** – PA, Right Lateral

Exam Routine:

Single contrast– Liquid EZ Paque only
Double contrast- EZ- Gas mixture
EZ-HD (in left hand)
Liquid EZ Paque

After upright images, the Radiologist Assistant will lay the table down. Make sure to give the patient the head pillow and a napkin. Liquid EZ Paque barium through straw Radiologist Assistant will place balloon paddle under patient in RAO position. Overhead images obtained.

Post Exam: Barium contrast post procedure form

- Print out and explain form to patient
- Have patient print and sign and RT print and sign
- Scan form into computer
- Give form to patient to take with

Scan in all appropriate documents
Document # images in all fluoro series
Document Total/Fluoro Time
Document Air Kerma
Send images to PACS
Rad Reserve images
End the procedure in EPIC

- Document tech, student, Radiologist Assistant and MD

Place all appropriate paperwork in Radiologist Assistant bin

Additional Note: EZ-HD can only be used on patients 12 years and older

ESOPHAGUS – SPECIAL VIEWS

*14th edition Merrill's Volume II, page 218-219

Position/Projection: **Supine/Prone** (AP/PA)

Patient Prep: Remove everything from the waist up. Ensure no earrings, necklaces etc.

SID: 40" SID *(1100 on Shimadzu equipment)*

Collimation: 12X17

Patient Position: Place the patient in the supine or prone position with the arms above the head in a comfortable position. Center the midsagittal plane to the grid. Turn the head slightly, if necessary, to assist drinking of the barium mixture.

Central Ray: Perpendicular to the midpoint of the IR (the central ray is at the level of T5-6)

Marker Placement: Right or Left marker on the appropriate side.

Shielding: Gonadal shielding required

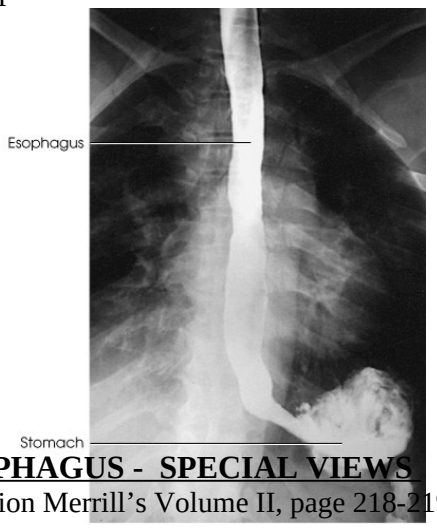
Breathing Instructions: N/A

Drinking Instructions: Drink continuously until you expose (give about 3 seconds).

Purpose/Structures: Contrast medium-filled esophagus should be shown from the lower part of the neck to the esophagogastric junction where the esophagus joins the stomach**.**

Evaluation Criteria:

- Evidence of proper collimation of proper collimation and presence of side marker placed clear of anatomy of interest
- Esophagus from the lower part of the next to its entrance into the stomach
- Esophagus filled with barium
- Penetration of the barium
- Esophagus through the superimposed thoracic vertebrae
- No rotation of the patient



ESOPHAGUS - SPECIAL VIEWS

*14th edition Merrill's Volume II, page 218-219

Position/Projection: Left Lateral (Lateral)

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Patient Prep: Remove everything from the waist up. Ensure no earrings, necklaces etc.

SID: 40" SID *(1100 on Shimadzu equipment)*

Collimation: 12X17

Patient Position: Place the patient's arms forward, with the forearm on the pillow near the head. Center the midcoronal plane to the grid.

Central Ray: Perpendicular to the midpoint of the IR (the central ray is at the level of T5-6)

Marker Placement: Left marker on the appropriate side.

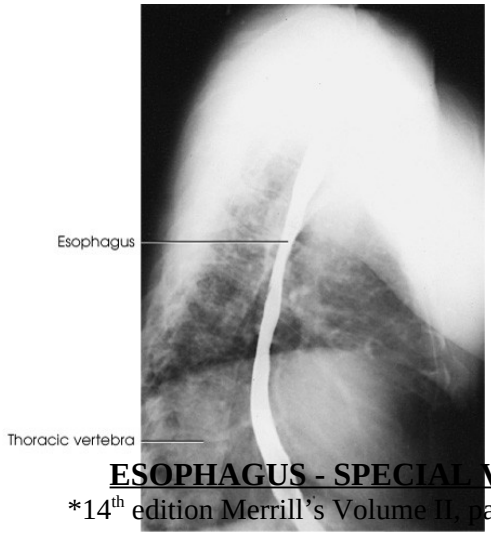
Shielding: Gonadal shielding required

Breathing Instructions: N/A

Drinking Instructions: Drink continuously until you expose (give about 3 seconds).

Purpose/Structures: Contrast medium-filled esophagus should be shown from the lower part of the neck to the esophagogastric junction where the esophagus joins the stomach**.**

Evaluation Criteria:
- Evidence of proper collimation and presence of side marker placed clear of anatomy of interest
- Esophagus from the lower part of the next to its entrance into the stomach
- Esophagus filled with barium
- Penetration of the barium
- Proximal esophagus without superimposition of the patient's arm
- Ribs posterior to the vertebrae superimposed to show that the patient was not rotated



ESOPHAGUS - SPECIAL VIEWS
*14th edition Merrill's Volume II, page 218-219

Position/Projection: LAO (PA Oblique)

Patient Prep: Remove everything from the waist up. Ensure no earrings, necklaces etc.

SID: 40" SID *(1100 on Shimadzu equipment)*

Collimation: 12X17

Patient Position: Place patient prone, left arm by side and right arm up. Rotate patient **35 - 40°** onto left side**,** having them bend right knee for support. Right shoulder and right hip in same plane. Patient uses right hand to hold barium cup to drink with straw.

Central Ray: Perpendicular to the midpoint of the IR (the central ray is at the level of T5-6). **Cassette Placement:** Place top of image receptor to level of mouth (not the light field!).

Marker Placement: Left marker, on the left side down.

Shielding: Gonadal shielding required

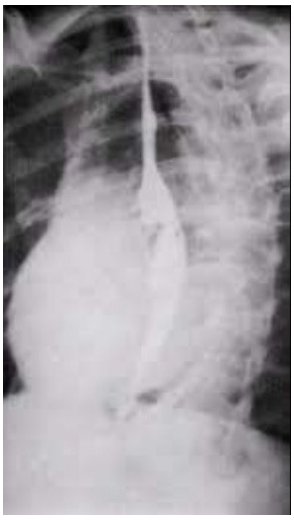
Breathing Instructions: N/A

Drinking Instructions: Drink continuously until you expose (give about 3 seconds).

Purpose/Structures: Contrast medium-filled esophagus should be shown from the lower part of the neck to the esophagogastric junction where the esophagus joins the stomach**.**

Evaluation Criteria:

- Evidence of proper collimation and presence of side marker placed clear of anatomy of interest
- Esophagus from the lower part of the neck to its entrance into the stomach
- Esophagus filled with barium
- Penetration of the barium
- Esophagus between the vertebrae and the heart



UGI - SPECIAL VIEWS

*14th edition Merrill's Volume II, page 232-233

Position/Projection: **Supine** (AP)

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Patient Prep: Remove everything except shoes socks and underwear. Ensure no body jewelry or metal on underwear.

SID: 40" SID *(1100 on Shimadzu equipment)*

Collimation: 14X17 Portrait (lengthwise) – for large diaphragmatic herniations or for the stomach and small bowel

10X12 Portrait (lengthwise) – for small hiatal hernias

Patient Position: Adjust the position of the patient so that the midline of the grid coincides with the midline of the body when a 14X17 IR is used. Longitudinal centering of the large IR depends on the extent of hernia protrusion into the thorax and is determined during fluoroscopy. Center at the level midway between the xiphoid process and the lower rib margin. Adjust up or down slightly, depending on whether the diaphragm or the small bowel needs to be seen.

Central Ray: Perpendicular to the center of the IR

Marker Placement: Right or Left marker on the appropriate side.

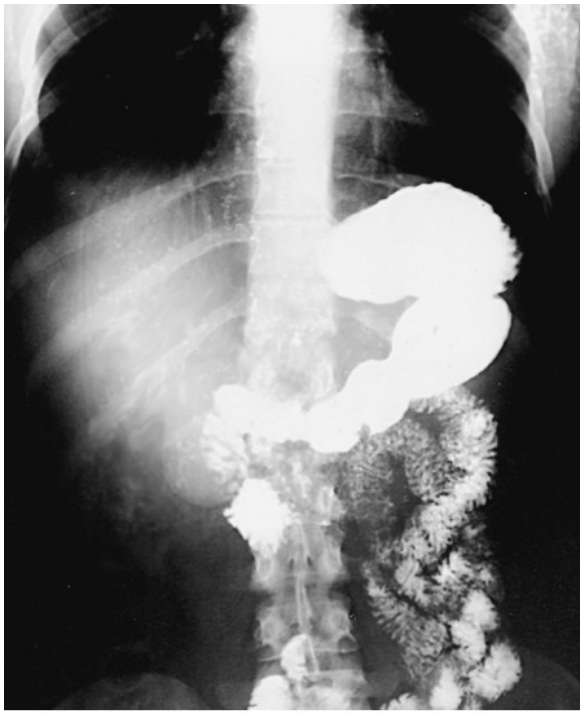
Shielding: Gonadal shielding required

Breathing Instructions: Suspended Expiration

Structures shown: **Stomach -**An AP projection of the stomach shows a well-filled fundic portion of the body, pyloric portion, and duodenum. Because of the elevation and superior displacement of the stomach, this projection affords the best AP projection of the retrogastric portion of the duodenum and jejunum.
Diaphragm – An AP projection of the abdominothoracic region shows the organ or organs involved in, and the location and extent of, any gross hernia protrusion through the diaphragm.

Evaluation Criteria:

- Evidence of proper collimation and presence of side marker placed clear of anatomy of interest
- Entire stomach and duodenal loop
- Double-contrast visualization of the gastric body, pylorus, and duodenal bulb
- Retrogastric portion of the duodenum and jejunum
- Lower lung fields on 14x17 images to show diaphragmatic hernias
- Stomach centered at level of the pylorus on 10x12
- No rotation of the patient
- Penetration of the contrast medium
- Surrounding soft tissue



UGI - SPECIAL VIEWS

*14th edition Merrill's Volume II, page 228-229

Position/Projection: LPO (AP Oblique)

Patient Prep: Remove everything except shoes socks and underwear. Ensure no body jewelry or metal on underwear.

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SID: 40" SID *(1100 on Shimadzu equipment)*

Collimation size: 10X12, or 11X14Portrait (lengthwise)

Patient Position: Have the patient abduct the left arm and place the hand near the head, or place the extended arm alongside the body. Place the right arm alongside the body or across the upper chest, as preferred. Have the patient turn toward the left, resting on the left posterior body surface. Flex the patient's right knee and rotated the knee toward the left for support. Place a positioning sponge against the patient's elevated back for immobilization.

The degree of rotation required to show the stomach best depends on the patient's body habitus. An average angle of 45 degrees should be sufficient for a sthenic patient, but the degree of angulation can vary from 30 to 60 degree.

Central Ray: Adjust the patient's position so that a sagittal plane passing approximately midway between the vertebrae and the left lateral margin of the abdomen is centered to the IR Perpendicular to the center of the IR. Adjust the center of the IR at the level of the body of the stomach. Centering would be adjusted at a point midway between the xiphoid process and the lower margin of the ribs.

Marker Placement: Left marker on the appropriate side.

Shielding: Gonadal shielding required

Breathing Instructions: Suspended Expiration

Structures shown: The AP oblique projection shows the fundic portion of the stomach. Because of the effect of gravity, the pyloric canal and the duodenal bulb are not as filled with barium as they are in the opposite and complementary position

Evaluation Criteria:

- Evidence of proper collimation and presence of side marker placed clear of anatomy of interest
- Entire stomach and duodenal loop
- Fundic portion of stomach
- No superimposition of pylorus and duodenal bulb
- Body of the stomach centered to the image
- Penetration of the contrast medium
- Surrounding soft tissue
- Body and pyloric antrum with double-contrast visualization