

 SELECT RADIOLOGY SOLUTIONS A Division of Radiology Imaging Associates	2 Hr Gastric Emptying (solid)		
	Approval: K. Shamlou, MD	rev:2	7/15/2026

Gastric Emptying (2 Hour Solid Phase)

Radiopharmaceutical: Tc99m-Sulfur Colloid in egg meal which consists of one whole egg, one piece of toast with butter. (or oatmeal, bread is NOT given) and 8oz water.

Dose: 1 mCi

T1/2: 6 hours

Energy: 140 keV

CPT: 78264

Indications:

Clinical indications for a gastric emptying study include, but are not limited to, the following:

1. Gastroparesis
2. Abdominal pain
3. Early satiety
4. Nausea
5. Vomiting
6. Diarrhea

Radiopharmaceutical:

- 1 mCi 99mTc-sulfur colloid in egg meal which consists of one whole egg, one piece of toast with butter. (or oatmeal, bread is NOT given, for patients allergic to eggs) and water.
- Pediatric patients to receive 0.06 mCi/kg of body weight.

Pharmacologic intervention:

CONTRAINDICATIONS Metoclopramide should not be used whenever stimulation of gastrointestinal motility might be dangerous, e.g., in the presence of gastrointestinal hemorrhage, mechanical obstruction, or perforation. Metoclopramide is contraindicated in patients with pheochromocytoma because the drug may cause a hypertensive crisis, probably due to release of catecholamines from the tumor. Such hypertensive crises may be controlled by phentolamine. Metoclopramide is contraindicated in patients with known sensitivity or intolerance to the drug. Metoclopramide should not be used in epileptics or patients receiving other drugs which are likely to cause extrapyramidal reactions, since the frequency and severity of seizures or extrapyramidal reactions may be increased.

- 5 mg Metoclopramide (Reglan) IV at 90 minutes post radioactive meal ingestion. Q.S. to at least 20 mL with 0.9% normal saline to accommodate slow push over 3 to 5 minutes, so as to minimize any adverse reactions.

Package insert: https://www.accessdata.fda.gov/drugsatfda_docs/label/2010/017862s0631bl.pdf

Patient instruction:

- NPO for at least 6 hours.
- Withhold any gastric medications for 24 to 48 hours (unless physician requests that they be taken).
- Appointment time is approximately 2 ½ hours.
- Upon scheduling, if patient has any pertinent prior studies, please instruct either the patient or the physician's office to make those available for comparison.

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Equipment:

1. GE 830 Discovery

Procedure:

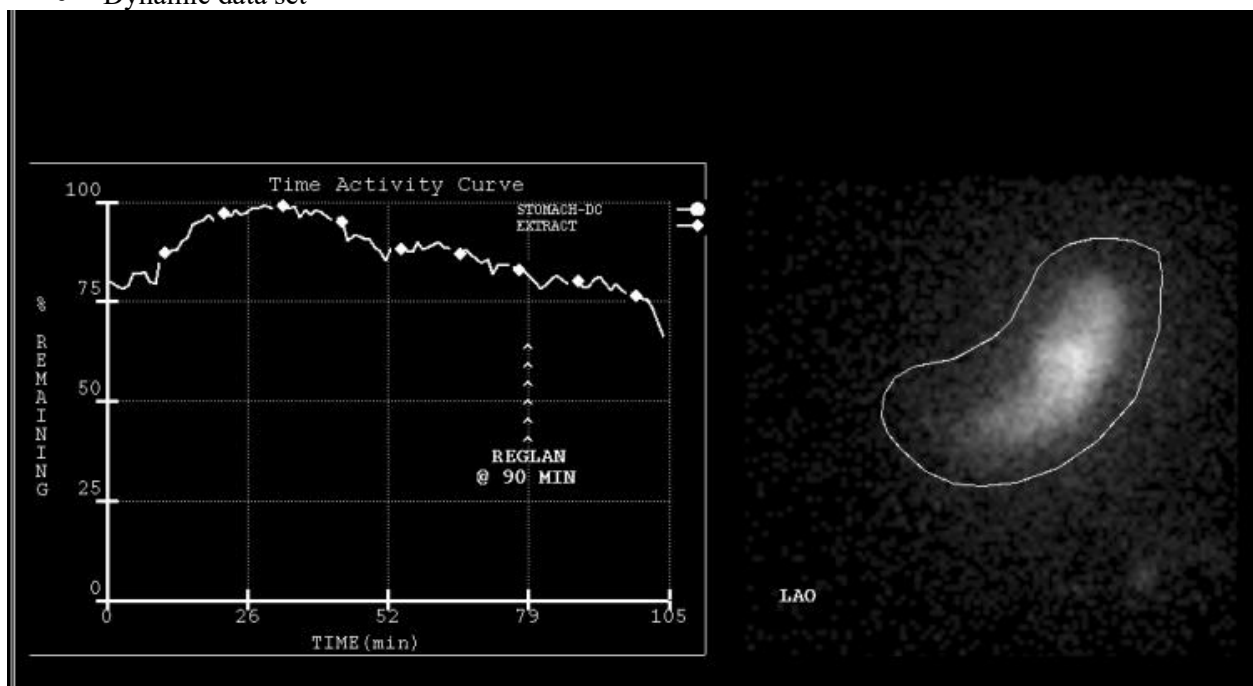
1. Set intravenous line for injection of intravenous metoclopramide.
2. Have patient use restroom prior to eating radioactive meal, so that imaging can begin immediately following ingestion and prevent restroom break.
3. Acquire immediate, dynamic images from 20° LAO projection for 60 seconds/frame for 120 frames.
4. Give IV Reglan at 90 minutes post radioactive meal ingestion (unless contraindicated) if gastric activity still remains. Note any adverse reactions.

Acquisition Parameters:

- LEHRS collimator.
- Matrix 128 x 128.
- Scan 120 frames at 60 seconds/frame.
- Zoom: 1.47

Processing/Data sets for PACS

- ROI screen shot/gastric emptying graph; ROI of the stomach
- Composite screen shot of the dynamic data reformatted into summed frames of 5 frames per image
- Dynamic data set



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