# Ileostomy or Colostomy Exam

## PURPOSE / CLINICAL INDICATION:
- Evaluation of post-operative anatomy.

## SPECIAL CONSIDERATIONS / CONTRAINDICATIONS:
- Contraindications include suspected bowel perforation and contrast allergy (if the patient is not pre-medicated for allergy)

<table>
<thead>
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<th>ORDERABLE NAME:</th>
<th>EPIC BUTTON NAME:</th>
<th>NOTES:</th>
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<tbody>
<tr>
<td>UTSW</td>
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<td>PHHS</td>
<td>XR Colostomy Study</td>
<td>Colostomy Study</td>
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## EQUIPMENT / SUPPLIES / CONTRAST:
- Water soluble contrast
- Commercially available contrast enema bag
  - Standard enema tip for rectal cannulation (with enema tip and/or cone tip)
  - 28F Foley catheter or cone tip for ostomy cannulation

## PATIENT PREPARATION:
- Review the EMR to determine the surgical anatomy, confirm indication for the exam (either clinical documentation or direct discussion with referring team)
- Review for contrast allergy
- NPO after midnight
- Explain the procedure to the patient. Answer any questions the patient may have.

## PROCEDURE IN BRIEF:
- Contrast mixture is introduced to evaluate ostomy, bowel post-surgical change, and any abnormality. No air contrast used.

## COMPLETE PROCEDURE TECHNIQUE:
- For end colostomy:
  - Inspect the scout image
  - If patient has a Hartman pouch:
    - Insert enema tip into rectum, do not inflate balloon
    - Fill Hartman pouch, obtain spot images
    - Drain as much contrast back out as possible
  - Use cone tip/Foley catheter to instill contrast retrograde into end colostomy
    - Use a colostomy irrigation bag or work through a hole in a regular colostomy bag to contain spillage and collect evacuated material
    - Have the patient wear a glove on the hand closest to the stoma and instruct the patient to hold the cone tip/Foley injection device firmly against skin.
    - Target is to fill the remaining colon retrograde from the colostomy
  - Obtain spot images
- For loop colostomy:
  - Inspect the scout image
  - Insert enema tip into rectum, do not inflate the balloon
    - Attempt to reflux contrast out through the loop colostomy
      - Be careful not to give too much contrast that the patient’s colostomy bag overflows
    - Obtain spot images
    - If contrast does not reflux out through the loop colostomy
- Use a colostomy irrigation bag or work through a hole in a regular colostomy bag to contain spillage and collect evacuated material
- Have the patient wear a glove on the hand closest to the stoma and instruct the patient to hold the cone tip/Foley injection device firmly against skin.
- Use cone tip/Foley catheter to cannulate the efferent limb of the colostomy
- Instill contrast antegrade toward rectum
- Obtain spot images
  - Use cone tip/Foley catheter to cannulate the afferent limb of the colostomy
    - Use a colostomy irrigation bag or work through a hole in a regular colostomy bag to contain spillage and collect evacuated material
    - Have the patient wear a glove on the hand closest to the stoma and instruct the patient to hold the cone tip/Foley injection device firmly against skin.
    - Target is to fill the remaining colon retrograde from the colostomy
    - Obtain spot images
- For loop ileostomy (if clinical indication is to evaluate the primary colon anastomosis {as typically desired}, change to solid column enema protocol):
  - Inspect the scout image
  - Use cone tip/Foley catheter to cannulate the afferent limb of the ileostomy.
    - Use a colostomy irrigation bag or work through a hole in a regular colostomy bag to contain spillage and collect evacuated material
    - Have the patient wear a glove on the hand closest to the stoma and instruct the patient to hold the cone tip/Foley injection device firmly against skin.
    - Target opacification is the region of surgery (several centimeters at the ostomy site)
    - Obtain spot images
  - Use cone tip/Foley catheter to cannulate the efferent limb of the ileostomy.
    - Use a colostomy irrigation bag or work through a hole in a regular colostomy bag to contain spillage and collect evacuated material
    - Have the patient wear a glove on the hand closest to the stoma and instruct the patient to hold the cone tip/Foley injection device firmly against skin.
    - Target opacification is the region of surgery (several centimeters at the ostomy site)
    - Obtain spot images
- IMAGE DOCUMENTATION:
  - For end colostomy
    - Spot images
      - Hartman pouch rectum: lateral, LPO, AP
      - Ostomy in profile
      - Images of remaining colonic segments to best advantage
    - Overhead images
      - Scout AP
      - Post evacuation AP
  - For loop colostomy
    - Spot images
      - Rectum lateral, LPO, AP
Individual ostomies in profile
- Colonic anastomosis to best advantage (if present)
- Images of remaining colonic segments to best advantage
  - Overhead images
    - Scout AP
    - Post evacuation AP
  - For ileostomy
    - Spot images
      - Individual ostomies in profile
      - Opacified loops in operative site to best advantage
    - Overhead images
      - Scout AP
      - Post injection AP

**ADDITIONAL WORKFLOW STEPS:**
- If ostomy site is the area of concern, additional images in obliques and lateral decubitus projections need to be obtained.
- Be aware if patient has new/additional ostomy bag available, or additional ostomy bag/cover is available in the department if the existing bag cannot be used.

**REFERENCES:**
- General Fluoroscopy Considerations
- Procedure Contrast Grid
- Types of ostomies (ileostomy, colostomy, urostomy)
  - Types of colostomies: LOOP/double barrel colostomy (two stomas); end colostomy (single stoma)
Types of Rectal surgeries (LAR, APR, IPAA/J-pouch)

- Low anterior resection (LAR) is used for cancers in the upper two thirds of your rectum or low sigmoid. In this procedure the tumor can be removed without affecting the anus. After low anterior resection, colon will be anastomosed to the anus. Sometimes, temporary colostomy is necessary while the surgical site heals. A second operation is then performed to close the temporary colostomy.

- Abdominoperineal resection (APR): If the cancer is in the distal third of the rectum and especially if it is growing into the sphincter muscle, the anus and sphincter muscle may also need to be removed. Here, not only does the surgeon make an incision in the abdomen, he also makes an incision in the perineal area around the anus. This incision allows the surgeon to remove the anus and the tissues surrounding it including the sphincter muscle. Because no anastomosis is possible with this operation, a permanent colostomy is created.

- The Restorative Proctocolectomy (also called J-Pouch, Parks Pouch, Ileoanal Pull-Through, Ileal Pouch Anal Anastomosis (IPAA)) is now the procedure of choice for patients needing surgery for the complications of Ulcerative Colitis. The operation involves removing the colon and most of the rectum, leaving the anal sphincter muscle intact. A reservoir is then constructed from normal small intestine and sewn or stapled to the anal muscles, thereby restoring intestinal continuity.
ACR PRACTICE GUIDELINE FOR THE PERFORMANCE OF A FLUOROSCOPIC CONTRAST ENEMA EXAMINATION IN ADULTS, amended 2014

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