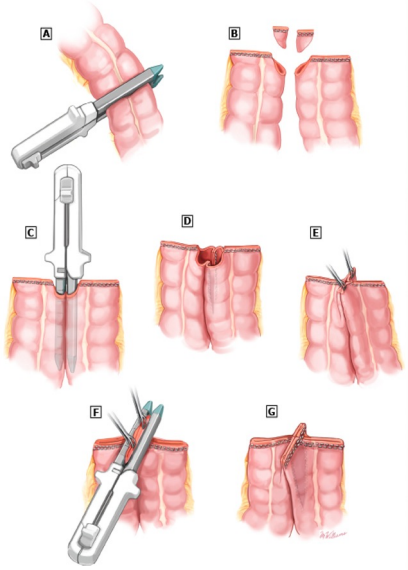
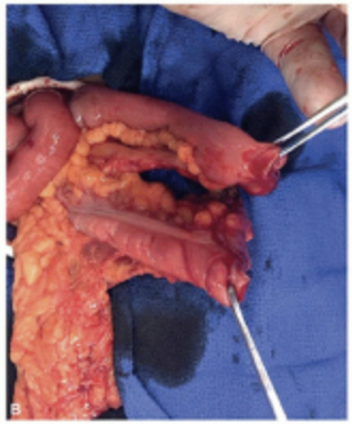
Small Bowel Resection

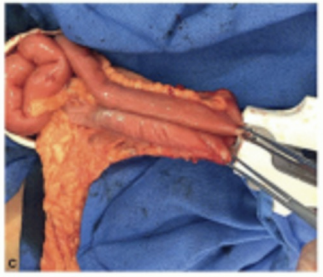
UVA Surgery
Noona

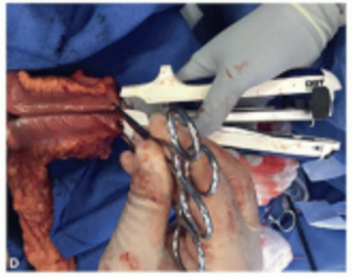
Opened, Stapled Anastomosis

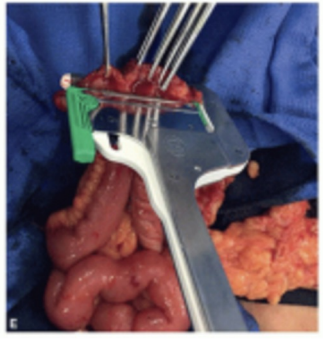
1. **Mesenteric window** adjacent to bowel
2. Use a **linear GIA cutting stapler** to divide the bowel (angle toward side that is staying for improved perfusion)
3. **Divide mesentery** with an energy device (ligasure) or clamps & ties.
4. Pass off specimen
5. **Align** bowel side-to-side along **antimesenteric border**
6. Create **corner enterotomies,** insert **linear cutting stapler,** align anti-mesenteric borders, fire stapler to create **common lumen & anastomosis**
7. **Inspect** staple lines & anastomosis
8. Close common enterotomy with a **TA stapler** (non-cutting)
9. **Close mesenteric defect** with absorbable suture





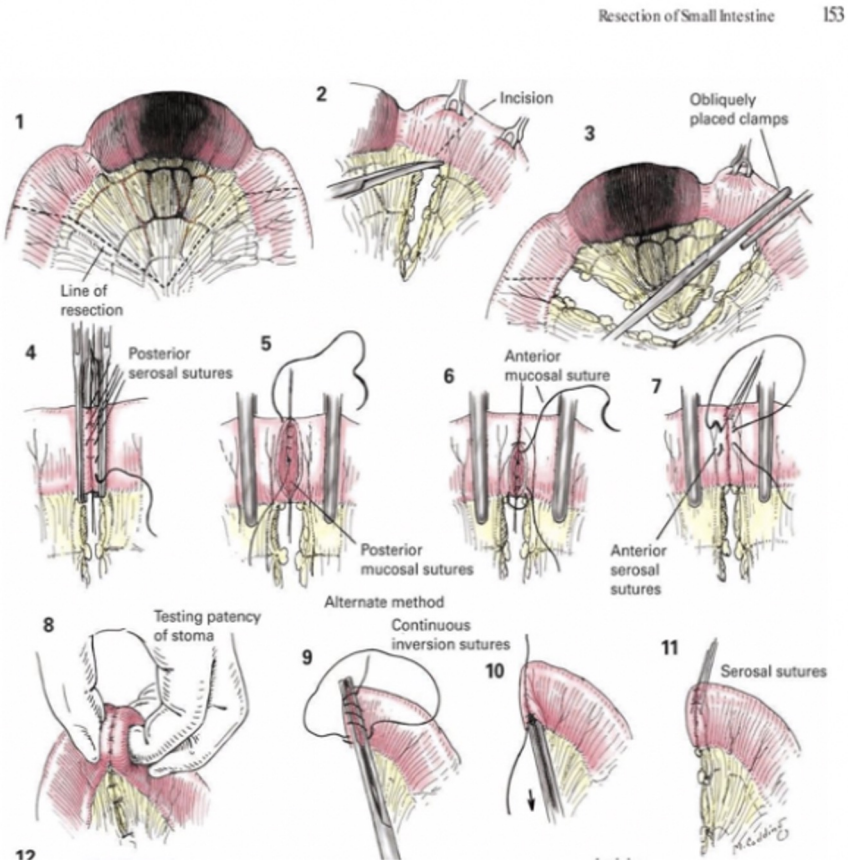






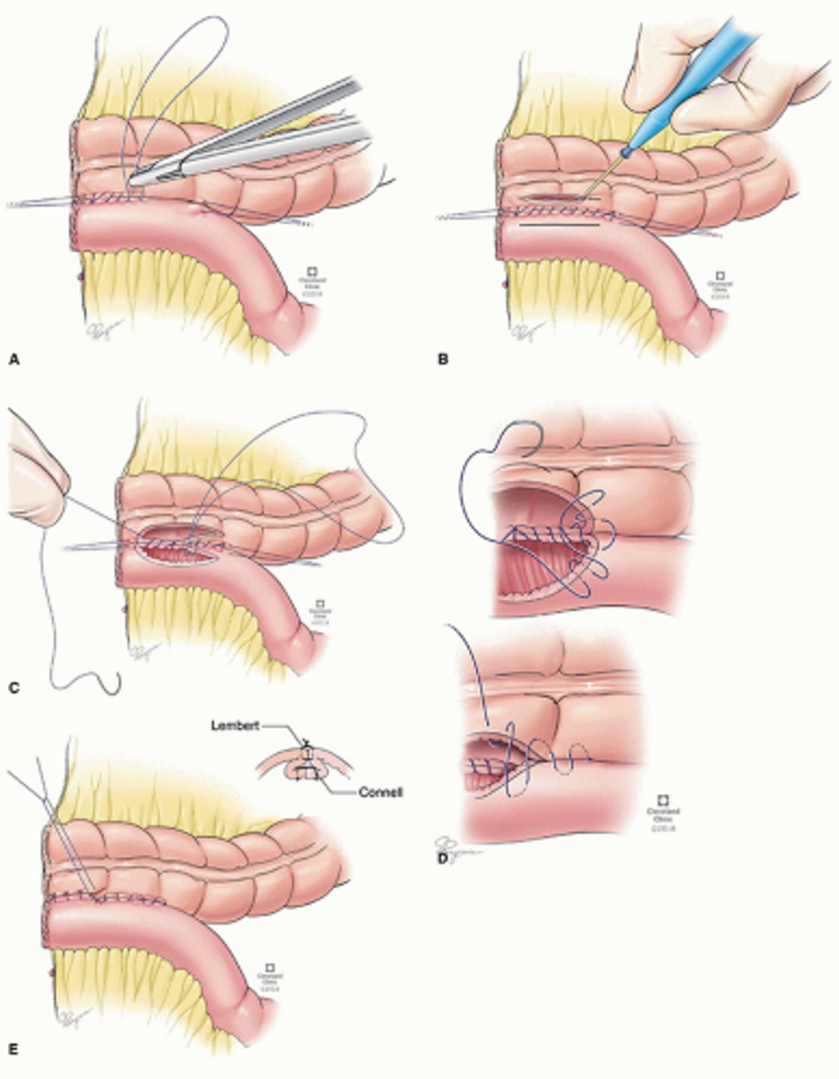
Hand-sewn, two-layer, end-to-end

1. **Mesenteric window** adjacent to bowel
2. **Clamps** at resection margins & **divide bowel between clamps**
3. **Divide mesentery** with an energy device (ligasure) or clamps & ties.
4. Pass off specimen
5. Bring edges of SB together for 2-layer anastomosis
    a. Inner absorbable (vicryl)
    b. Outer permanent (silk)
6. **Close mesenteric defect** with absorbable suture (vicryl)



Hand-sewn, two-layer, side-to-side (Functional EEA)

1. Same beginning steps
2. Align bowel **side-to-side** along **antimesenteric** border
3. Place **anchoring sutures**
4. Create longitudinal **enterotomies** in each segment of bowel
5. **Inner running absorbable** suture
6. Final **outer** layer of **silk lembert sutures**
7. **Close mesenteric defect** with absorbable suture (vicryl)



Complications of SBR

Anastomotic leaks:

- Usually presents b/t **5-7 days post-op**

- Sxs: Persistent pain, fever, tachycardia / arrhythmia, peritonitis, prolonged ileus, feculent / purulent drainage

- Dx: clinical diagnosis, CT w/ PO & IV contrast may confirm and assist surgical planning

- Tx: IVF, broad spectrum antibiotics, percutaneous drainage, or surgical revision

Short Bowel Syndrome

Prevention: only heavily diseased segments should be resected

Preserve as much length as possible, consider second look

Critical Length: Depends on **presence** or **absence** of **IC valve**

- **50 cm** of SI to survive off TPN if competent IC valve
- **75 cm** to survive off TPN if **no** IC valve

Diagnosis:

1. **Sudan red stain** (assesses fecal fat content)
    a. Higher in short bowel syndrome
2. **Schilling test** (assesses B12 absorption; radiolabeled B12 in urine)
    a. Impaired absorption→ will be low (10%) radiolabeled B12 in urine

Tx: Restrict Fat (optimized diet), PPI, antimotility agents (i.e. Lomotil, Imodium), TPN, Teduglutide (GLP-2 analog), SI transplant