

Jaswin Sawhney

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## Indications

- Splenic cysts.
- Injury to the upper or lower pole of the spleen (iatrogenic or traumatic). The decision to perform partial splenectomy versus splenectomy should be based on the patient's physiology, age, extent of the injury to the spleen, and overall trauma burden.

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## Essential Steps

1. Upper midline for trauma or iatrogenic. Laparoscopic or left subcostal incision for cysts.
2. Explore the abdomen. Pack all four quadrants for trauma.
3. For trauma or iatrogenic injuries: mobilize the lateral attachments of the spleen (spleno-phrenic and splenocolic ligaments).
4. Mobilize the spleen and tail of the pancreas medially into the wound, keeping the left kidney in the retroperitoneum. May need to incise the splenocolic ligament. For splenic

cysts or if lateral approach fails, you can approach the splenic artery medially through the lesser sac or at the hilum.

5. If necessary, place Bulldog clamp on the splenic artery.
6. Identify the area involved. When considering partial splenectomy for injury, the spleen has often already been divided by the injury.
7. Take the short gastric vessels and incise the gastrosplenic ligament to improve mobility and access to the segmental vasculature.
8. Identify major vessels to the upper or lower pole at the hilum.
9. Ligate blood supply to the area of planned resection (*if upper pole, also ligate short gastrics*).
10. Remove Bulldog clamp.
11. Observe for line of demarcation.
12. Remove the demarcated area with cautery or stapling device.
13. The raw surface can often be treated with topical agents, argon beam coagulator, running monofilament suture over pledgets, or Vicryl mesh wrapping
14. Check hemostasis and close without drains.

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J. Sawhney, MD  
Department of Surgery, Maine Medical Center,  
887 Congress Street, Ste 210, Portland, ME 04102,  
USA  
e-mail: [jsawhney@mmc.org](mailto:jsawhney@mmc.org)

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## Note These Variations

- Closure of the splenic remnant
- Upper or lower pole resected

## Complications

- Infarction of the remnant
- Bleeding
- Injury to the stomach, colon, or tail of the pancreas
- Subphrenic abscess

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## Template Operative Dictation

**Preoperative Diagnosis** *Traumatic rupture of the spleen/splenic cyst/iatrogenic injury limited to the upper/lower pole of the spleen*

**Procedure** Partial splenectomy with preservation of the lower/upper pole with intact blood supply

**Postoperative Diagnosis** Same

**Indications** This \_\_\_-year-old male/female was found to have *traumatic rupture of the spleen/iatrogenic injury/splenic cyst*.

**Description of Procedure** *An epidural catheter was placed by anesthesia prior to the start of the operation. Time-outs were performed using both preinduction and pre-incision safety checklists to verify correct patient, procedure, site, and additional critical information prior to beginning the procedure. The patient was placed in the supine position and general endotracheal anesthesia was induced. Preoperative antibiotics were given. A Foley catheter and a nasogastric tube were placed. The abdomen was prepped and draped in the usual sterile fashion.*

*A vertical midline incision was made from the left side of xiphoid to just below the umbilicus. This was deepened through the subcutaneous tissue and hemostasis was achieved with electrocautery. The*

*linea alba was identified and incised and the peritoneal cavity entered/a left subcostal incision was made from the midline to the anterior axillary line, approximately two finger breadths below and parallel to the costal margin. Anterior rectus sheath was divided, the rectus muscle was carefully divided with cautery, and the posterior sheath was opened to enter the peritoneal cavity.*

The abdomen was packed in all four quadrants and explored. The spleen was found to be *normal in size/enlarged*. (List any other abnormalities found.) *The spleen and tail of the pancreas were mobilized medially. Injury/pathology was found to be limited to the upper/lower pole and therefore amenable to partial splenectomy. Care was taken to avoid injury to the pancreas or splenic hilum. Packs were placed behind the spleen. The lesser sac was entered or the splenic hilum exposed to clamp the splenic artery (as needed).*

The vessels supplying the *area/pole* were ligated. A line of demarcation was observed to form and the spleen was divided along this line with *electrocautery/a TA or linear stapling device with wide staple load. The cut edge of the splenic remnant was treated with 2-0 running/interrupted monofilament suture with pledgets of \_\_\_ Teflon or omental buttress*. The remnant was inspected and found to be viable, with an intact blood supply from the splenic artery. Hemostasis was achieved. The splenic remnant was replaced in the left upper quadrant.

The fascia was closed with *a running suture of \_\_\_/interrupted \_\_\_*. The skin was closed with *skin staples/subcuticular sutures of \_\_\_/other*.

A debriefing checklist was completed to share information critical to postoperative care of the patient. The patient tolerated the procedure well and was taken to the postanesthesia care unit in stable condition. All counts were correct.

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