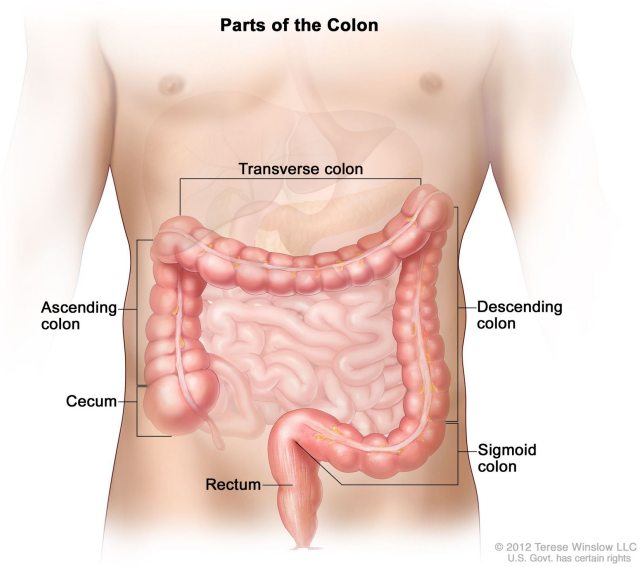
Robotic Assisted Partial Colectomy
(Removing part of the colon)

What is the Colon and what is its purpose?

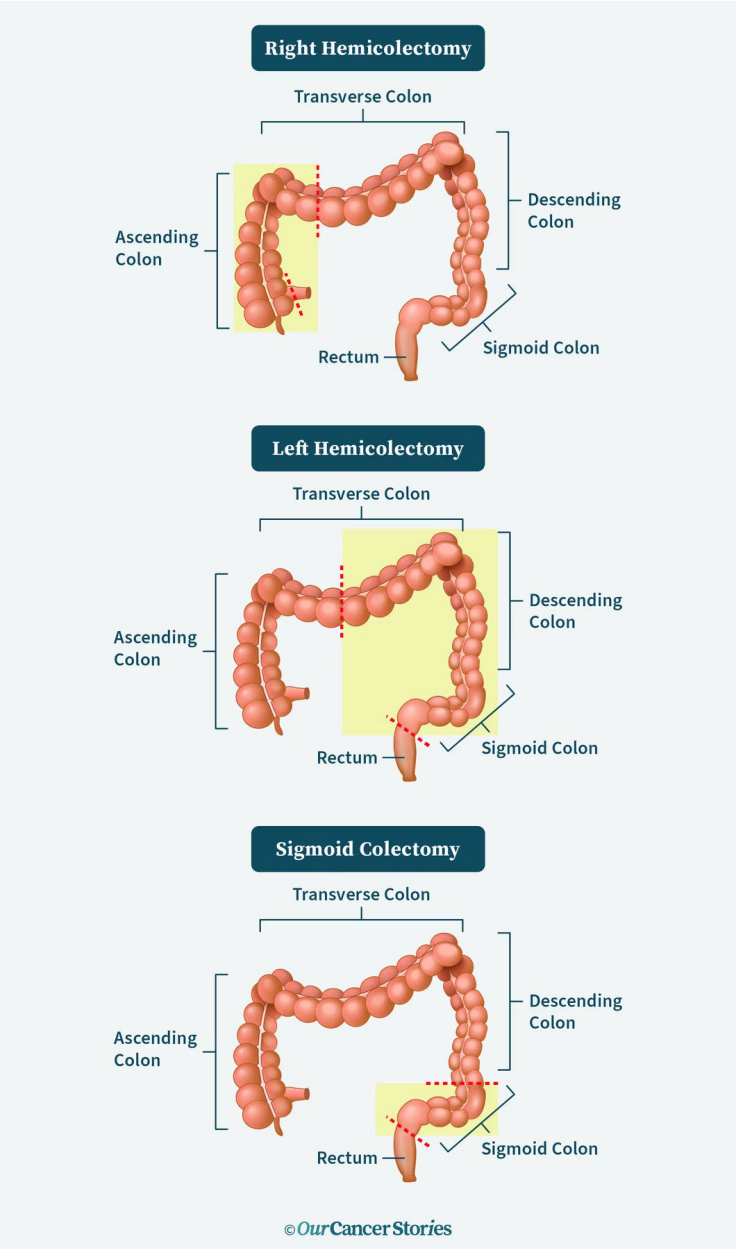
1. Water and Electrolyte Reabsorption
   - Fluid recovery: It reabsorbs remaining fluids, pulling roughly 300 ml or more of water back into the bloodstream every day.
   - Salt balancing: It absorbs essential mineral salts and electrolytes, such as sodium and potassium, to maintain internal fluid balance.
   - Stool formation: This drying process transforms loose liquid waste into solid, manageable stool



2. Waste Storage and Elimination.
   - Mucus lubrication: Specialized cells secrete thick mucus to protect the intestinal lining and smoothly glide feces forward.
   - Peristaltic movement: Powerful, slow muscular waves (mass movements) occur a few times a day to push waste toward the exit.
   - Temporary storage: The final segment, the rectum, securely holds the feces until the body signals that it is time for defecation

Why Should part of the colon be Removed?

- Colorectal Cancer: Removing the cancerous section of the colon and nearby lymph nodes stops the disease from spreading or prevents a complete blockage.
- Diverticulitis: Chronic or severe inflammation and infection of small pouches in the colon wall (diverticula) can cause tears, abscesses, or blockages requiring surgical resection.
- Precancerous Polyps or Genetic Syndromes: Inherited conditions like familial adenomatous polyposis (FAP) or dense clusters of complex polyps prompt preventive colon removal to stop cancer before it starts.
- Bowel Obstruction: A completely blocked intestinal tract—caused by scar tissue, twisted bowels (volvulus), or tumors—is a medical emergency that often requires removing the blocked segment.
- Severe Bleeding: Uncontrollable gastrointestinal bleeding originating from the large intestine requires surgery when other treatments fail.



What is life like after part of the colon is removed?

- Generally, life can return to normal after a partial colectomy. However, this is dependent on the portion of the colon removed.

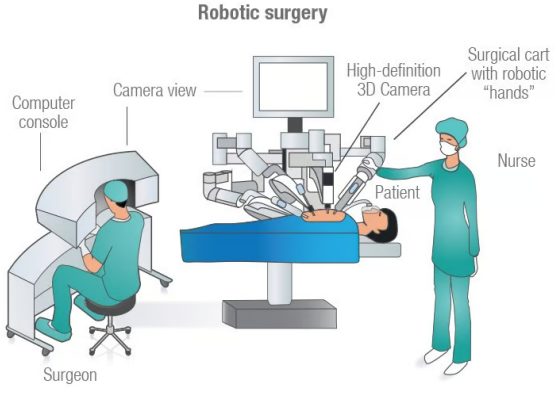
- A Sigmoid colectomy and a left colectomy, when performed for diverticulitis generally has no negative consequences on the body. Diet and bowel function can return to normal after this section of the colon is removed. Usually loose bowel movements are noticed after surgery, but this resolves with time.
- A right hemicolectomy with not affect your diet, however, you may notice loose bowel movements of varying degree permanently. This is because the right colon contains a valve (ileocecal valve) that slows the passage of liquids into the colon. When this valve is removed during a right hemicolectomy, there is no regulation of liquids into the colon. The water-reabsorption capacity of the colon can fall behind, leading to more water passing from the colon. This can be treated with diet modification and/or medications.

What complications can arise during a colectomy?

- Anastomotic Leak: This occurs when the staples or stitches that join the healthy parts of your bowel come undone. This can cause digestive waste to leak into your abdomen, which can lead to a serious infection called peritonitis that needs urgent surgery.
- Internal or External Bleeding: If you bleed too much, it might happen inside your abdomen or at the incision. Sometimes, you might need a blood transfusion or another procedure to stop the bleeding.
- Organ and Tissue Damage: During the operation, there can be an inadvertent injury to nearby organs or tissues, like the small intestine, bladder, blood vessels, or ureters (the tubes that connect your kidneys to your bladder).
- Infections: You could get an infection at the skin incision, deep inside your abdomen (like an abscess), or a more widespread infection such as pneumonia or a urinary tract infection (UTI).

What Is a Robotic Operation?

- Robotic surgery is a type of laparoscopic operation (small incisions). Every movement by the robot is controlled by the surgeon at the console. The robot does not operate or move independently.



- The surgeon is present in the room and within a few feet from the patient
- The robotic console provides better visualization, 3D HD cameras, and better instrument stability.

Before Your Surgery

- No food or drink after midnight unless otherwise instructed
- The following medications usually need to be held before the operation.
  - Anticoagulation (Aspirin, Brilinta, Eliquis, Coumadin, Plavix, Xarelto, ect). Discuss specifics with your surgeon and staff.
- Shower the night before or morning of surgery
- Wear loose-fitting clothing
- Arrange transportation home. Someone will need to stay with you the night of the operation.

After Your Surgery

- Walk frequently beginning the day of surgery
- Do Not lift objects heavier than 10–15 pounds for SIX weeks (or as directed)
- Keep incisions clean and dry.
  - You may shower the day after surgery
  - Do NOT soak the incision in water (pools, tubs, baths, ect) for 3 weeks
- Most patients return to desk work within several days and more strenuous activity after 6 weeks.

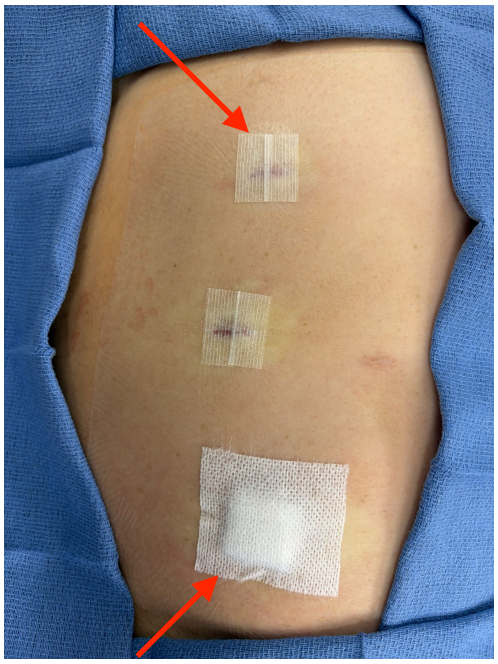
Normal After Surgery

- Shoulder discomfort from the gas used during surgery. Resolves after 48h
- Mild fever up to 100.5°F. Fever Greater than 101.5°F (38.6°C) should be reported to your surgeon.
- Bruising around the incisions is normal
- You will feel a bump under each of the incisions. This is scar tissue and will soften and flatten after 1-2 months
- One incision will hurt more than the other laparoscopic incisions. This larger incision is where the colon is removed from the abdomen. This incision is larger and is closed at the muscle level which leads to more post-op discomfort. This will resolve in time.

Bandages

- STERI-STRIPS:
  - The top layer of bandages can be removed after 24 hours. This is a large square of tape. Underneath this bandage are smaller bandages called stern-strips
  - Steri-strips will usually fall off after 10 days. If they have not fallen off after 14 days, peel them off yourself.
  - You can shower with stern-strips in place.
- DERMABOND
  - This is a thin layer of glue over the incision. It will flake off after 7-10 days but it can also require gentle removal with your fingernail after 14 days.

Steri-Strips



Top layer - bandage/gauze

Physical Restrictions

- Do not lift anything over 10 pounds for SIX weeks after your operation
- Do not exercise within FOUR weeks of your operation
- After FOUR weeks, you can begin light cardiovascular exercise such as walking or elliptical machine

Diet after Colectomy

- You have no dietary restrictions after a your colon resection. It is important to stay hydrated and to avoid constipation by eating adequate fiber and avoiding dehydration.

Call JRK Surgical If You Experience

- Fever greater than 101.5°F (38.6°C)

- Increasing redness, swelling, or drainage from an incision
- Persistent nausea or vomiting
- Worsening abdominal pain

Seek Emergency Care Immediately For

- Chest pain
- Shortness of breath
- Heavy bleeding
- Loss of consciousness

Youtube Videos of Related Operations:

- Sigmoid colon resection for 9cm colon cancer
  - https://www.youtube.com/watch?v=D1C4e_darEk
- Sigmoid colectomy for diverticulitis
  - https://www.youtube.com/watch?v=YRfYBw94KE0
- Right Hemicolectomy for a large/suspicious polyp on colonoscopy
  - https://www.youtube.com/watch?v=mqLjg4tUpFI&t=70s
- Sigmiod colectomy and removal of Colovesicle fistula (connection of the colon to the bladder)
  - https://www.youtube.com/watch?v=6rHe5-PodqQ
- Removal of the Right Colon for Cecal volvulus (twisting of the colon)
  - https://www.youtube.com/watch?v=y1obz7oMC1w