Colonic Volvulus

A Practical Guide For Patients

GastroDoxs

defenders of the digestive system

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Introduction: Colonic Volvulus

Colonic volvulus occurs when part of the colon twists around the tissue that supports it, creating a bowel obstruction. The twist may also compress blood vessels and reduce blood flow to the affected section of the colon. The two most common forms are sigmoid volvulus, which affects the lower colon, and cecal volvulus, which affects the beginning of the colon. Symptoms often include abdominal swelling, cramping, constipation, nausea, and vomiting. Colonic volvulus is a medical emergency because untreated twisting can cause bowel tissue death, perforation, infection, sepsis, or shock. Diagnosis usually involves abdominal imaging. Treatment may include urgent endoscopic decompression or surgery, depending on the location and severity of the twist.

Key Takeaways

- Colonic volvulus is a twisting of part of the large intestine.
- The twist creates a mechanical bowel obstruction.
- Sigmoid volvulus affects the sigmoid colon.
- Cecal volvulus affects the cecum and ascending colon.
- Abdominal swelling and pain are common symptoms.
- Patients may be unable to pass stool or gas.
- Reduced blood flow can damage the colon.
- Perforation, peritonitis, sepsis, and shock are possible complications.
- Imaging helps identify the location and severity of the twist.
- Uncomplicated sigmoid volvulus may initially be treated endoscopically.
- Cecal volvulus usually requires surgery.
- Immediate treatment reduces the risk of life-threatening complications.

What Causes Colonic Volvulus?

Known Causes:

Colonic volvulus develops when a mobile or unusually long section of the colon rotates around its supporting mesentery. Certain structural differences allow the bowel to move more freely and increase the risk of twisting. Chronic constipation, colon enlargement, previous surgery, prolonged immobility, and some neurological conditions may also contribute.

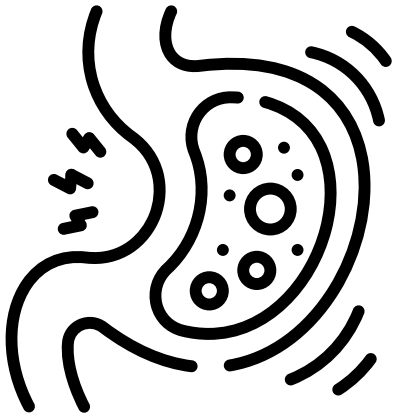
- **Elongated sigmoid colon:** An unusually long sigmoid colon may twist more easily.
- **Narrow mesenteric attachment:** A narrow supporting base allows greater colon movement.
- **Mobile cecum:** The cecum and ascending colon may not be firmly attached to the abdominal wall.
- **Chronic constipation:** Long-standing constipation may enlarge and stretch the colon.
- **Megacolon:** Severe colon enlargement can increase the likelihood of twisting.
- **Previous abdominal surgery:** Surgery may change normal bowel positioning or mobility.
- **Neurological conditions:** Parkinson's disease and other disorders may affect bowel movement.
- **Mental health conditions:** Some conditions and their medications may contribute to chronic constipation or reduced mobility.

Common Signs & Symptoms

Symptoms may begin suddenly or develop over several hours or days. Abdominal distension, cramping, constipation, and inability to pass gas are common. Nausea and vomiting may occur as the obstruction worsens. Symptoms can become severe if the twisted colon loses its blood supply or develops a perforation.

Core Symptoms Include:

- Increasing abdominal swelling or bloating
- Cramping or persistent abdominal pain
- Constipation
- Inability to pass gas
- Reduced or absent bowel movements
- Nausea



Severe cases can also cause:

- Severe or continuous abdominal pain
- A rigid or extremely tender abdomen
- Fever
- Rapid heart rate
- Low blood pressure
- Confusion, fainting, or extreme weakness
- Bloody stool
- Persistent vomiting and dehydration

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Diagnosis & Medical Testing

Diagnosis focuses on confirming that part of the colon has twisted, locating the affected segment, and checking for reduced blood flow or perforation. The healthcare team reviews symptoms and medical history, performs an abdominal examination, and orders imaging. CT scanning is especially useful for identifying the twist and evaluating bowel viability.

Diagnostic Tools:

- **Medical history evaluation:** Reviews pain, abdominal swelling, constipation, vomiting, and inability to pass gas.
- **Risk-factor assessment:** Identifies chronic constipation, previous surgery, neurological illness, immobility, or prior volvulus.
- **Physical examination:** Checks abdominal distension, tenderness, rigidity, and bowel sounds.
- **Vital-sign assessment:** Evaluates fever, rapid heart rate, low blood pressure, and signs of shock.
- **Abdominal X-ray:** May reveal marked colon enlargement and a characteristic bowel-gas pattern.
- **CT scan:** Identifies the location of the twist and looks for obstruction, ischemia, or perforation.
- **Contrast imaging:** A lower gastrointestinal contrast study may help evaluate the colon in selected stable patients.
- **Complete blood count:** Checks for infection, inflammation, anemia, or blood loss.

Diet

Diet cannot untwist the colon or treat an active volvulus. During an acute episode, patients are generally managed in the hospital and may temporarily be instructed not to eat or drink while the obstruction is evaluated and treated. After successful treatment, food is restarted gradually according to the medical or surgical team's instructions.

Key Insights:

- Follow emergency and hospital instructions regarding food and fluids.
- Do not attempt to treat an active obstruction through diet.
- Resume liquids and solid foods only when medically approved.
- Begin with clear liquids if recommended after treatment.
- Progress to soft, easily digested foods as tolerated.
- Eat smaller meals during early recovery.
- Chew food thoroughly and eat slowly.
- Maintain hydration after oral intake is permitted.
- Avoid large meals when recovering from abdominal surgery.
- Follow temporary low-fiber instructions when provided after surgery.
- Do not make major changes to fiber intake without medical guidance.
- Address chronic constipation with an individualized bowel plan.

Medications & Treatment Options

No medication can physically untwist a volvulus. Medical treatment supports the patient before and after endoscopic or surgical correction. Care may include intravenous fluids, electrolyte replacement, symptom control, antibiotics when bowel injury is suspected, and close monitoring. Definitive treatment depends on whether the volvulus affects the sigmoid colon or cecum and whether the bowel remains healthy.

Treatment Options

- **Intravenous fluids:** Treat dehydration and support blood circulation.
- **Electrolyte replacement:** Corrects abnormalities caused by vomiting or obstruction.
- **Bowel rest:** Temporarily prevents food and fluid from entering the obstructed digestive tract.
- **Nasogastric tube:** Removes fluid and air from the stomach when significant vomiting or distension is present.
- **Pain management:** Relieves discomfort while avoiding medicines that may worsen bowel slowing when possible.
- **Anti-nausea medication:** Helps control nausea and vomiting.
- **Broad-spectrum antibiotics:** May be used when ischemia, perforation, or bacterial movement across the bowel wall is suspected.
- **Blood-clot prevention:** May be provided during hospitalization when appropriate.
- **Flexible endoscopic decompression:** May untwist uncomplicated sigmoid volvulus.

Advanced Therapies & Procedures

Treatment selection depends on the location of the volvulus and the condition of the bowel. Uncomplicated sigmoid volvulus is usually decompressed endoscopically first. Because recurrence is common without definitive treatment, sigmoid colon resection is generally considered during the same hospitalization. Cecal volvulus is usually treated surgically rather than endoscopically.

Therapy Options:

- **Flexible sigmoidoscopic detorsion:** Uses a flexible scope to untwist uncomplicated sigmoid volvulus.
- **Colonoscopic decompression:** Releases trapped gas and reduces pressure within the colon.
- **Decompression tube placement:** Helps keep the sigmoid colon decompressed after successful detorsion.
- **Sigmoid colectomy:** Removes the affected sigmoid colon to reduce recurrence risk.
- **Primary anastomosis:** Reconnects healthy bowel ends after the twisted segment is removed.
- **Hartmann procedure:** Removes the diseased colon and creates a temporary or permanent colostomy when immediate reconnection is unsafe.
- **Cecal resection:** Removes the affected cecum and nearby colon in cases of cecal volvulus.
- **Right hemicolectomy:** Removes the right side of the colon when required.

Coping With Colonic Volvulus

Recovery from colonic volvulus may involve hospital care, endoscopy, abdominal surgery, or temporary ostomy management. Follow-up is especially important after sigmoid volvulus because successful endoscopic untwisting alone does not eliminate the risk of recurrence. Patients should follow their care team's instructions for diet, activity, wound care, bowel monitoring, and future treatment.

Practical Strategies

- Attend all gastroenterology and surgical follow-up appointments.
- Follow postoperative diet instructions carefully.
- Increase activity gradually after treatment.
- Take prescribed medications exactly as directed.
- Follow individualized instructions for preventing constipation.
- Avoid frequent laxative use without medical approval.
- Drink adequate fluids when permitted.
- Monitor bowel movements and ability to pass gas.
- Record recurring bloating, pain, or constipation.
- Report persistent nausea or vomiting promptly.
- Follow wound-care instructions after surgery.
- Learn ostomy care when a temporary or permanent ostomy is created.

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FAQS

Q1: What is colonic volvulus?

A: Colonic volvulus occurs when part of the colon twists around its supporting tissue. The twist blocks the movement of stool and gas and may also reduce blood flow to the affected bowel.

Q2: What causes colonic volvulus?

A: It may develop when part of the colon is unusually long, enlarged, or mobile. Chronic constipation, megacolon, previous abdominal surgery, neurological conditions, prolonged immobility, and certain anatomical differences can increase the risk.

Q3: How is colonic volvulus diagnosed?

A: Diagnosis typically involves a medical history, abdominal examination, X-rays, and a CT scan. Flexible sigmoidoscopy may confirm and treat an uncomplicated sigmoid volvulus.

Q4: How is colonic volvulus treated?

A: Uncomplicated sigmoid volvulus may first be untwisted through flexible endoscopy, followed by surgery to reduce recurrence risk. Cecal volvulus generally requires surgery. Emergency surgery is necessary when the colon is damaged, perforated, or cannot be decompressed.

Take Action

f you experience **Colonic Volvulus,** don’t ignore it. Early diagnosis and treatment can prevent complications.
Schedule a consultation with GastroDoxs for expert guidance on managing your digestive health.

For additional resources, visit **GastroDoxs.com**.

Your health starts with knowledge. Take the first step today!

SCHEDULE AN APPOINTMENT

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