Ileus: Causes, Symptoms and Treatment

Ileus is a **temporary and functional** (non-mechanical) arrest of **intestinal peristalsis**, leading to impaired movement of bowel contents through the **small and/or large intestine**.

> *Distinguishing Point*: Unlike mechanical obstruction, ileus has **no physical blockage**. The bowel appears patent but lacks the muscular contractions to move contents forward.

Types of Intestinal Obstruction

1. **Mechanical Obstruction**
   - Caused by a **physical barrier** in the intestine.
   - Examples: **Volvulus**, **incarcerated hernia**, **intussusception**, **tumors**, **impacted feces**, **foreign bodies**.
2. **Non-Mechanical Obstruction (Ileus)**
   - Due to **paralysis of intestinal musculature**, not an anatomical blockage.
   - Also called **paralytic ileus** or **adynamic ileus**.
   - Most commonly seen **postoperatively** or due to **intra-abdominal inflammation**.

Etiology of Ileus

Common Causes

- **Postoperative ileus**: Most frequent, especially after abdominal or pelvic surgery.
- **Peritonitis**: Inflammation from infection (e.g., perforated viscus).
- **Retroperitoneal pathology**:
  - Hematomas (e.g., ruptured AAA),
  - Inflammation (e.g., pancreatitis, retrocecal appendicitis),
  - Fractures (e.g., lumbar vertebrae).

Metabolic & Pharmacologic Causes

- **Electrolyte Imbalances**: Hypokalemia, hypomagnesemia.
- **Drugs**:
  - **Opioids** (? GI motility via ?-receptors),
  - **Anticholinergics**,
  - **Calcium channel blockers** (less common).

Other Contributing Conditions

- **Renal failure**
- **Thoracic causes** (e.g., pneumonia, myocardial infarction, lower rib fractures)

Postoperative GI Recovery Timelines

GI Segment	Normal Function Return
Small Intestine	0–24 hours
Stomach	24–48 hours
Colon	48–72 hours (most affected)

Clinical Presentation

- **Abdominal distention**
- **Nausea and vomiting**
- **Mild, vague abdominal discomfort**
- **Obstipation** (no flatus or stool) or minimal watery stool
- **Absent or hypoactive bowel sounds**
- **Non-tender abdomen** (unless underlying inflammation)

  Pain is typically non-colicky , which helps differentiate from mechanical obstruction.

Diagnosis

Clinical Evaluation

- History of **recent surgery** , trauma, infection, or medication use.
- Absence of bowel sounds on **auscultation** .

Imaging

- **Abdominal X-ray** :
  - Dilated loops of bowel with air-fluid levels.
  - Gas more prominent in the **colon** than in the small bowel (in postoperative ileus).
- **CT Scan** :
  - Useful to rule out **mechanical obstruction** , **abscess** , or **complication** .

Contrast Studies

- **Water-soluble contrast enema** or **oral contrast** can help distinguish ileus from mechanical obstruction.
- In ileus, contrast may **diffuse slowly** through the bowel without a clear point of obstruction.

Management

Supportive Treatment

- **NPO** (nil per os): No oral intake.
- **Nasogastric decompression** : For vomiting or severe distention.

- **IV fluids and electrolyte correction** , especially **potassium** .
- **Avoid opioids and anticholinergics** (worsen motility).
- **Minimal sedation** to preserve gut activity.

Maintain **serum K? > 4.0 mmol/L** for optimal gut motility.

Persistent or Complicated Ileus

- If symptoms persist **> 5–7 days** , suspect mechanical obstruction ? **Surgical consultation** .
- **Colonic pseudo-obstruction (Ogilvie's syndrome)** :
  - Consider **colonoscopic decompression** .
  - **IV neostigmine** (cholinesterase inhibitor) may be used; **cardiac monitoring required** due to risk of bradycardia.

High-Yield Notes

- **Most common cause of ileus** : **Postoperative state**
- **Classic triad** : Abdominal distention + Vomiting + Absent bowel sounds
- **Initial step in management** : Supportive care (NPO, fluids, NG tube)
- **Key complication to rule out** : **Mechanical obstruction** or **peritonitis**
- **Ogilvie's Syndrome** = acute colonic pseudo-obstruction, often in **elderly** or **immobile patients**