

# Approach to a Patient with Abdominal Pain

## Introduction

Abdominal pain is a frequent complaint in emergency and outpatient settings, ranging from benign to life-threatening conditions. A systematic approach is essential for accurate diagnosis and effective management.

## Learning Objectives

By the end of this study material, the learner should be able to:

- List common causes of abdominal pain.
- Describe a systematic approach for evaluation (history, examination, investigations).
- Differentiate between acute and chronic pain presentations.
- Recognise clinical red flags.
- Apply knowledge to case scenarios and assignments.
- Self-assess understanding through MCQs and assignments.

## Definitions & Types

- Abdominal pain: A symptom originating from any organ in the abdominal cavity (GI tract, liver, pancreas, kidneys, reproductive organs).
- Types of Pain:
  - Visceral: Dull, poorly localised (e.g., intestinal colic).
  - Parietal: Sharp, localised (e.g., peritonitis).
  - Referred: Felt distant from the origin (e.g., shoulder pain in diaphragmatic irritation).

## Anatomical Considerations

- Abdomen is divided into 4 quadrants: RUQ, LUQ, RLQ, LLQ.
- Pain localisation offers clues to diagnosis (RLQ: appendicitis, LUQ: splenic issues, etc.).
- Referred Pain: Shoulder pain in the gallbladder (cholecystitis with diaphragm irritation).

## Causes

- Acute Causes: Appendicitis, cholecystitis, pancreatitis, perforated ulcers, bowel obstruction.

- Chronic Causes: IBS, peptic ulcer, GERD, chronic pancreatitis.
- Gynaecological/Urological: Ectopic pregnancy, ovarian torsion, UTI, renal colic.

## History Taking

A systematic history is crucial:

- Onset (sudden vs. gradual), duration, nature, site, radiation, severity.
- Associated symptoms: fever, vomiting, diarrhoea.
- Aggravating/relieving factors (pain relieved by food: peptic ulcer).
- Menstrual and sexual history in females.

## Physical Examination

Include:

- Inspection: Distension, scars, masses.
- Palpation: Tenderness, guarding, rebound tenderness (peritonitis).
- Percussion/Auscultation: Assess for ascites, tympany, bowel sounds.
- Special tests: Murphy's sign (cholecystitis), McBurney's point (appendicitis).

## Red Flags

Urgent attention needed for:

- Severe/sudden pain.
- Signs of peritonitis (rigidity, rebound).
- Shock/hemodynamic instability.
- Fever, vomiting, bloody stools.
- Pregnancy-related pain (ectopic).

## Investigations

Choose tests based on suspicion:

- Labs: CBC, LFTs, amylase/lipase, urinalysis, pregnancy test (women).
- Imaging: X-ray (perforation/obstruction), Ultrasound (gallstones, appendicitis, ovarian pathology), CT scan (gold standard for acute pain).
- Urine pregnancy test is mandatory for women of reproductive age presenting with abdominal pain.

## **Management Principles**

- Initial: ABCs (Airway, Breathing, Circulation), pain relief.
- Definitive: Based on cause (surgery for appendicitis, fluids for pancreatitis).
- Stabilise and act quickly for red flags.

## **Case Scenario**

Example:

- 25-year-old male with RLQ pain, fever, and anorexia: Acute appendicitis.