Changes in bowel habits

# Objectives:

* Define constipation and diarrhea
* Discuss the definition, etiology and classification of irritable bowel syndrome (IBS)
* Explain how to diagnose IBS
* List the alarm symptoms and differential diagnosis
* Provide a comprehensive management plan and follow up for patients with IBS
* Recognize when to refer to specialist
* Demonstrate history taking and physical examination for patients presented with history suggestive of IBS
* Practical: Examination of the Abdomen, how to perform the examination?

# Definition of diarrhea and constipation:

* **Constipation:** Is an unsatisfactory defecation characterized by infrequent stools, difficult stool passage, or defecation that is both infrequent and/or difficult As Well As A Sensation of an incomplete Evacuation.
* **Diarrhea:** Is defined as the passage of three or more loose or liquid stools per day (or more frequent passage than is normal for the individual).

# The definition of irritable bowel syndrome (IBS):

* is a gastrointestinal disorder characterized by chronic abdominal pain and altered bowel habits in the absence of any organic cause.
* It is the most commonly diagnosed gastrointestinal condition.
* The pathophysiology of IBS remains uncertain.
* It is viewed as a disorder resulting from an interaction among a number of factors.

# Etiology of IBS: (Theories)

* **Physiological factors:**
  + Some evidence that IBS may be serotoninergic (5-HT) disorder, as evidenced by relatively excessive release of 5-HT in D-IBS, and relative deficiency C-IBS.
* **Visceral hypersensitivity**
* **Intestinal inflammation** 
  + Theory that IBS represent a low grade inflammation not detected by test with raised number of mast cells (This theory supported by the improvement of the condition with mast cell stabilizers)
* **Post-infectious**
* **Alteration in fecal microflora** 
  + Both quantitative and qualitative alteration in intestinal bacterial contents have been reported.
* **Psychosocial dysfunction**
* **Food sensitivity.**

# Classification of IBS:

* **IBS with constipation (IBS-C):** hard or lumpy stools for ≥25% of bowel movements and loose (mushy) or watery stools for ≤25% of bowel movements.
* **IBS with diarrhoea (IBS-D):** loose (mushy) or watery stools for ≥25% of bowel movements and hard or lumpy stool for ≤25% of bowel movements.
* **Mixed IBS (IBS-M):** hard or lumpy stools for ≤25% of bowel movements and loose (mushy) or watery stools for ≤25% of bowel movements.
* **Unspecified IBS:** insufficient abnormality of stool consistency to meet criteria for IBS-C, IBS-D, or IBS-M

# Diagnosis of IBS:

## History:

## **Presence of risk factors**

* + physical and sexual abuse.
  + Age < 50
  + Female gender
  + Previous enteric infection
* **Symptoms:** 
  + Abdominal discomfort (cramping) – Defecation relieves the pain- .
  + Alteration of bowel habits
  + Abdominal bloating and distention
  + Passage of mucus with stool
  + Incomplete evacuation, rectal hypersensitivity, as well as urgency.
* **NICE guideline for diagnosis of IBS:**
  + A diagnosis of IBS should be considered only if the person has abdominal pain or discomfort that is either relieved by defecation or associated with altered bowel frequency or stool form.This should be accompanied by at least two of the following four symptoms:
    - Altered stool passage (straining, urgency, incomplete evacuation)
    - Abdominal bloating (more common in women than men), distension, tension or hardness
    - symptoms made worse by eating
    - passage of mucus.
* **Rome 3 criteria for the diagnosis of IBS:**
  + Recurrent abdominal pain or discomfort at least 3days/ month in the last 3 months associated with two or more if the following:
    - Improvement with defecation.
    - Onset associated with a change in frequency of stool.
    - Onset associated with a change in form (appearance) of stool

## Investigations:

* No specific diagnostic test
* Excludes other causes of such symptoms:
  + FBC 🡪 normal in IBS
  + Stool studies 🡪 done in patient complaining of diarrhea to exclude parasites.
  + anti-endomysial antibodies, anti-tTG antibodies 🡪 to exclude celiac disease
  + Plain X-ray 🡪 exclude obstruction
  + Flexible sigmoidoscopy, colonoscopy → exclude inflammatory bowel disease , colon cancer
  + Serum CRP → <0.5 mg/L makes IBD unlikely and IBS more likely
  + Faecal calprotectin test → also to differentiate between IBS and IBD.

## Alarm symptoms and differential diagnosis of IBS

* Rectal bleeding
* Iron deficiency anemia
* Weight loss
* Family history of colon cancer
* Fever
* Age of onset after 50 years of age
* Nocturnal symtoms

# Management plan of IBS:

* IBS is a chronic condition with no known cure.
* The focus of treatment should be on relief of symptoms and in addressing the patient's concerns.
* There is no cure, but effective management may lessen the symptoms.
* Does not affect quality of life → Diet and lifestyle changes only
* Effects quality of life → Diet, lifestyle changes and pharmacological therapy.
* The plan (Best explained in the summery picture)
  + **Patient education** 🡪 reducing stress and increasing exercise
  + **Dietary modification** 🡪 Fiber and diet
  + **Psychosocial therapies** 🡪 Cognitive behavioral therapy (CBT) , Hypnotherapy and Psychotherapy
  + **Pharmacological:** 
    - Anti spasmodic agent ( mepeverine, hyoscyamine or dicyclomine )
    - Tricyclic antidepressant
    - Targeting the Motility
      * Lopramide for IBS-D
      * Cisapride for IBS-C

# When to refer a case to specialist

* The emergence of any 'red flag' symptoms during management and follow‑up -should prompt further investigation and/or referral to secondary care.
  + More than minimal rectal bleeding
  + Weight loss
  + Unexplained iron deficiency anemia
  + Fever.
  + Family history of Colorectal cancer or ovarian carcinoma, IBD, celiac disease
  + Age of onset after age of 50.

# Summery ( important for the management)

