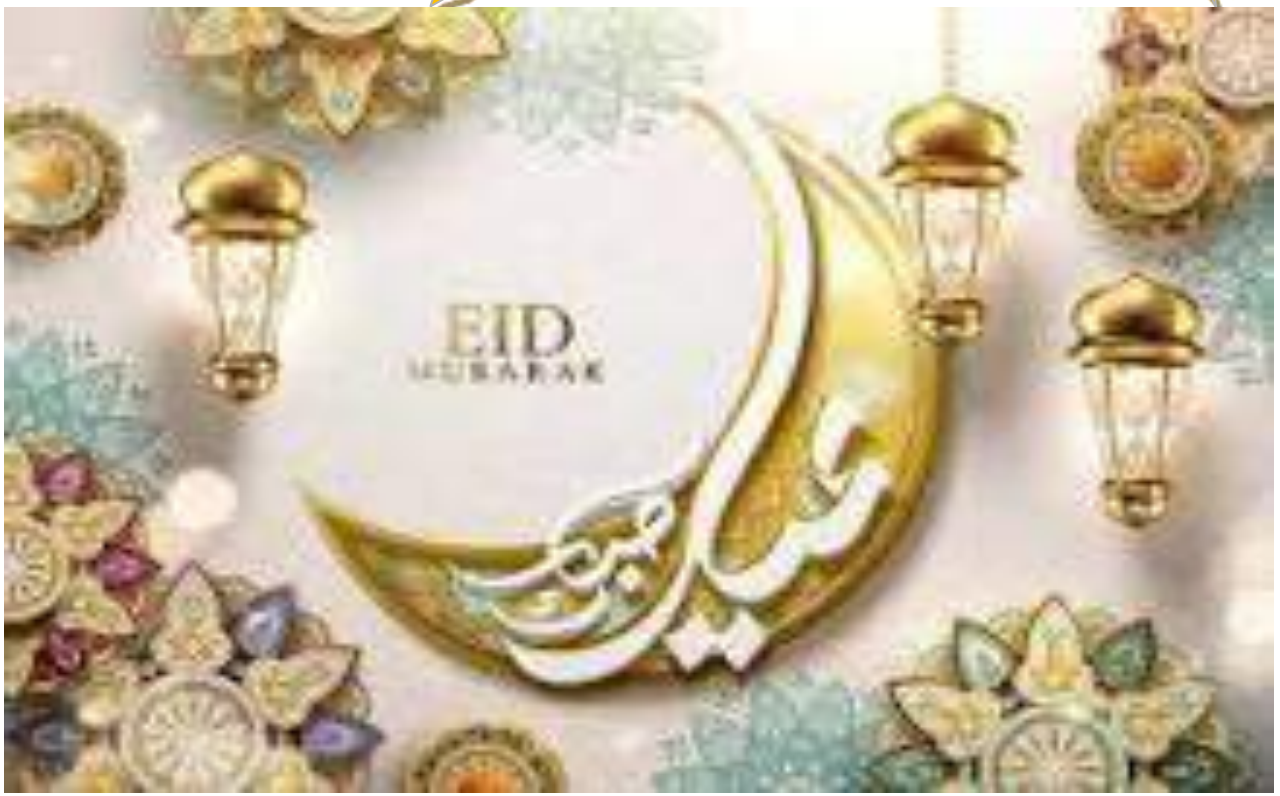
بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



Prof DR. Waqar Al – Kubaisy

Irritable Bowel Syndrome

IBS Awareness 9th April

PROF DR. WAQAR AL – KUBAISY

3rd April 2025

Irritable bowel syndrome

Other names

Spastic colon, nervous colon, mucous colitis, spastic bowel

Irritable bowel syndrome (IBS):

- Is **one of the most common functional gastrointestinal illnesses worldwide.**
- **Characterized** by a group of symptoms that commonly include abdominal pain, abdominal bloating and changes in the consistency of bowel movements.
- These symptoms may occur over a long time, sometimes for years.

These manifestations manifest in the intestines **without any obvious biochemical** or anatomical abnormalities

- IBS can negatively affect quality of life and may result in missed school or work or reduced productivity at work.

Disorders such as **anxiety, major depression**, and **chronic fatigue** syndrome are common among people with IBS.

In the clinical setting, IBS represents

In the clinical setting, IBS represents a large proportion of the **gastrointestinal workload in both primary and secondary care, resulting in significant economic burden**

Classification

IBS can be classified as:

- Diarrhea-predominant (IBS-D),
- Constipation-predominant (IBS-C),
- with mixed/alternating stool pattern (IBS-M/IBS-A) or
- pain-predominant.

IBS **may have an acute onset** and develop after an infectious illness characterized by two or more of:

fever, vomiting, diarrhea, or positive stool culture.

- This post-infective syndrome has consequently been termed "**post-infectious IBS**" (IBS-PI)
- Un classified (IBS-U):Patient meeting IBS diagnosis criteria whose bowel habit cannot be accurately grouped into one of the main subtypes

Epidemiology

- **Although IBS is very common in clinical settings, little is known about its global prevalence and distribution among specific population subgroups**
- IBS **prevalence has increased**
- **The prevalence of IBS ranges from 1.1% to 45%** (2022)
- A study done in 2024 found that IBS prevalence world wide ranged from **1.1% to 47.5%**
- differed according to the geographic location varies by country and by age range, gender, and tool of examination
- **.in Western countries ranging from 10% to 20% , and** in the **Far East ranges** from 1% to 10% and reaches **21%** in South America.
- **IBS is also highly influenced** by demographic, ethnic, psychological, and environmental factors

❑ Gender

- ❖ In **Western countries**, women are around two to three times more likely to be diagnosed with IBS and four to five times more likely to seek specialty care for it than men.
- ❖ However, women in **East Asian** countries are not more likely than men to have IBS,
- ❑ People diagnosed with IBS are usually younger than 45 years old.
- ❑ Studies of females with IBS show symptom severity often fluctuates with the menstrual cycle, suggesting hormonal differences may play a role.

The increase in gastrointestinal symptoms during menses or early menopause may be related to declining or low estrogen and progesterone,

- ❖ Gender differences in **healthcare-seeking** may also play a role.
- ❖ Gender differences in **trait anxiety** may contribute to lower pain thresholds in women, putting them at greater risk for a number of chronic pain disorders

In Jordan,

From developing countries, including Jordan, few IBS studies

In developed countries, females have a 2 to 4-fold higher of developing IBS compared to males.

IBS is more prevalent among young individuals and declines with age..

IBS prevalence of in the Jordanian general population is high.

The **prevalence of IBS** was 41.7%. **2024**

30.9%. in **2022** **and** 15.95%, in **2019**.

Lifestyle factors, such as unhealthy eating habits (junk or fast food), cigarette smoking, and physical inactivity, have been linked to IBS.

Also psychological factors such as stress, depression, and anxiety.

Additionally, **genetic factors have been implicated**, **with 33%** of patients with IBS reporting a positive **family history**.

IBS is associated with a considerable reduction in the quality of

- IBS is associated with a **considerable reduction in the quality of life, accompanied by significant socioeconomic and psychological consequences.**
- In the **clinical setting**, IBS represents a large proportion of the **gastrointestinal workload in both primary and secondary care, resulting in significant economic burden**

Cause

While the causes of IBS are still unknown. IBS has a complicated etiology,

- it is believed that the entire gut–brain axis is affected.
- Recent findings suggest that an **allergy triggered peripheral immune mechanism may underlie** the symptoms associated with abdominal pain in patients with **IBS**
- **It is possible for triggers** including **emotions, nutrition, drugs, and hormones to cause or aggravate GI symptoms.**

IBS is now understood to be a **complex interaction of physiological and psychosocial factors, as opposed to previous beliefs that primarily** attributed the condition to psychological roots.

Risk factors

Risk factors

Although the precise cause of IBS is still unknown, Several Risk

- People who are younger than 50, those older than 50 are 25% less likely to have IBS than those younger than 50.
- Woman
- those with a family history of the condition are more likely to develop IBS.
- Further risk factors are anxiety, depression, and stress.
- IBS is more prevalent in obese patients
- The risk of developing IBS increases six-fold after having a gastrointestinal infection (gastroenteritis).
  This is also called post-infectious IBS.
- Risk of developing IBS following an infection is further increased in those who also had a prolonged fever during the illness.
- Antibiotic use also appears to increase the risk of developing IBS.
- Genetic defects in innate immunity and epithelial homeostasis increase the risk of developing both post-infectious as well as other forms of IBS.

Stress

❑ Stress

Cont. ….Risk factors

The role of the brain–gut axis in IBS has been suggested It is believed that

- **psychological stress may trigger IBS in predisposed individuals**
- **Psychiatric illness or anxiety precedes IBS symptoms in two-thirds of people with IBS, and**
- **psychological traits predispose previously healthy people to developing IBS after gastroenteritis.**
- Individuals with IBS also report **high rates of sleep** disturbances such as trouble falling asleep and frequent arousal throughout the night

Gastroenteritis (GII)

- **About 10% of IBS cases are triggered by an acute GII**
- **Genetic defects** relating to the innate immune system and epithelial barrier as well as high **stress and anxiety** levels appear **to increase** the risk of developing **post-infectious IBS**.
- **Post-infectious IBS usually manifests itself as the diarrhea-predominant subtype**

Bacteria;Small intestinal bacterial

❑ Cont. ….Risk factors

Bacteria;

Certain bacteria are found in lower or higher abundance.

This includes ***Lactobacillus***, which is found to have a decrease in people with IBS, and

Streptococcus which is shown to have an increase in abundance

Protozoa

❑ Vitamin D

- ❖ Vit D deficiency is more common in individuals affected by IBS.
- ❖ Vit D is involved in **regulating triggers** for IBS including the gut microbiome, inflammatory processes and immune responses,
- ❖ as well as psychosocial factors.

❑ Genetics

found in a number of people who have IBS, particularly the constipation-predominant variant (IBS-C).

Mechanism

Mechanism

Genetic, environmental, and psychological factors seem to be important in the development of IBS.

The condition also has a **genetic component** even though there is a predominant influence of **environmental** factors.

❑ Diagnosis

- ❖ No specific laboratory or imaging tests can diagnose IBS.
- ❖ **Diagnosis should be based on symptoms**,
- ❖ the **exclusion of worrisome features,** and
- ❖ the performance of specific investigations to rule out organic diseases that may present similar symptoms.

❑ The Rome criteria are typically used for diagnosis.

They allow the diagnosis to be based only on symptoms,
but no criteria based solely on symptoms is sufficiently accurate to diagnose IBS.

❑ Worrisome features include onset at greater than 50 years of age, weight loss, , **blood in the stool, iron-deficiency anemia, or a family history of** ,colon cancer, celiac disease, or inflammatory bowel disease

Rome III Diagnostic Criteria

The Rome III Criteria may be used to further describe patients' symptoms with 4 subtypes: (IBS-D), (IBS-C), (IBS-M/IBS-A and IBS unclassified

Recurring abdominal pain occurring an average of one day a week for the **past three months** associated with at least two of the following:*

Defecation

A change in frequency of bowel movements

A change in the appearance of stool

*Symptom onset must occur at least 6 months before diagnosis

The Bristol Stool Form Scale

Type 1		Separate hard lumps, like nuts (hard to pass)
Type 2		Sausage-shaped but lumpy
Type 3		Like a sausage but with cracks on its surface
Type 4		Like a sausage or snake, smooth and soft
Type 5		Soft blobs with clear-out edges (passed easily)
Type 6		Fluffy pieces with ragged edges, a mushy stool
Type 7		Watery, no solid pieces ENTIRELY LIQUID

UK/COR/0116/0853. Date of preparation: January 2016

Management

A number of treatments have been found to be effective, including fiber, talk therapy (Psychotherapy)

FODMAP

- FODMAPs **are short-chain carbohydrates that are poorly absorbed in the small intestine.**
- Although there is evidence of **improved IBS symptoms** with a , low-FODMAP diet the evidence is of very low quality.
- Symptoms most likely to improve on this type of diet **include urgency, flatulence, bloating abdominal pain, and altered stool output.**
- One national guideline advises a low FODMAP diet for managing IBS **when other dietary and lifestyle measures** have been unsuccessful.
- The diet restricts various **carbohydrates** which are **poorly absorbed** in the small intestine, as well as , **fructose and lactose**, which are similarly poorly absorbed in those with intolerances to them.
- **Reduction of fructose** has been shown to reduce IBS symptoms in a dose-dependent manner in people with fructose mal absorption and IBS.

A low-FODMAP diet of restricting them

- A low-FODMAP diet might help to improve short-term digestive symptoms in adults with IBS , **but its long-term follow-up can have negative effects** because it causes a detrimental impact on the . gut microbiota and metabolome. It should only be used for short periods of time and under the advice of a specialist.
- A low-FODMAP diet is highly restrictive in various groups of nutrients and can be impractical to follow in the long-term.
- In **addition, the use of a low-FODMAP diet without verifying the diagnosis of IBS may result in misdiagnosis of other conditions** such as celiac disease,

Fiber

- Soluble fiber supplementation (e.g., psyllium/ispagula husk) السالقاطونة لسان الحمل ع يليوم (قشور الاسباغول شبه)/ may be effective in improving symptoms
- However soluble fiber does not appear to reduce pain

It acts as a bulking agent, and for many people with IBS-D, **allows for a more consistent stool.**

- For people with IBS-C, it seems to

Cont. Fiber

- For people with IBS-C, it seems to allow for a softer, moister, more easily passable stool
- In people who have IBS-C, soluble fiber can reduce overall symptoms but will not reduce pain
- However, insoluble fiber(e.g., bran) is not effective for IBS. In some people, insoluble fiber supplementation may aggravate symptoms.

Fiber might be beneficial in those who have a predominance of constipation.

Physical activity

- Physical activity can have beneficial effects on IBS

In light of this, the latest British Society of Gastroenterology guidelines on the management of IBS have stated that all patients with IBS should be advised to take regular exercise),

- Physical activity could significantly improve people's adherence and, consequently, lead to a significant clinical benefit for symptoms of irritable bowel syndrome

❖ Medication

Medications that may be useful include

- antispasmodics such as dicyclomine is antispasmodic that helps relax the muscles in the digestive tract, helps relieve belly cramps by relaxing the gut muscles and slowing their natural movements.
- Antidepressants
  - especially in constipation predominant IBS
  - Antidepressants are not effective for IBS in people with depression, possibly because lower doses of antidepressants than the doses used to treat depression are required for relief of IBS

Other agents

vitamin D, supplementation is recommended in individuals with IBS low levels of vitamin D. Some evidence suggests that vitamin D supplementation may improve symptoms of IBS

Psychological therapies: can be effective in the treatment of IBS. Reducing stress may also reduce the frequency and severity of IBS symptoms.

Techniques that may be helpful include regular exercise, such as swimmir

Techniques that may be helpful include regular exercise, such as swimming, walking, or running.

❑ Probiotics :

Probiotics are foods or supplements that contain live microorganisms intended to maintain or improve the "good" bacteria (normal micro flora) in the body. Prebiotics are foods (typically high-fiber foods) that act as food for human micro flora

- ❖ Probiotics can be beneficial in the treatment of IBS;
- ❖ taking 10 billion to 100 billion beneficial bacteria per day is recommended for beneficial results.
- ❖ Probiotics have positive effects such as enhancing the intestinal mucosal barrier, providing a physical barrier, bacteriocin production
- ❖ resulting in reduced numbers of pathogenic and gas-producing bacteria,
- ❖ reducing intestinal permeability and bacterial translocation, and
- ❖ regulating the immune system both locally and systemically among other beneficial effects.

- A number of probiotics have been found to be effective, including ,Lactobacillus . Some yogurt is made using probiotics that may help ease symptoms of IBS.
- A probiotic yeast called Saccharomyces boulardii (tropical yeast) has some evidence of effectiveness in the treatment of IBS
- Certain probiotics have different effects on certain symptoms of IBS. to affect flatulence levels.

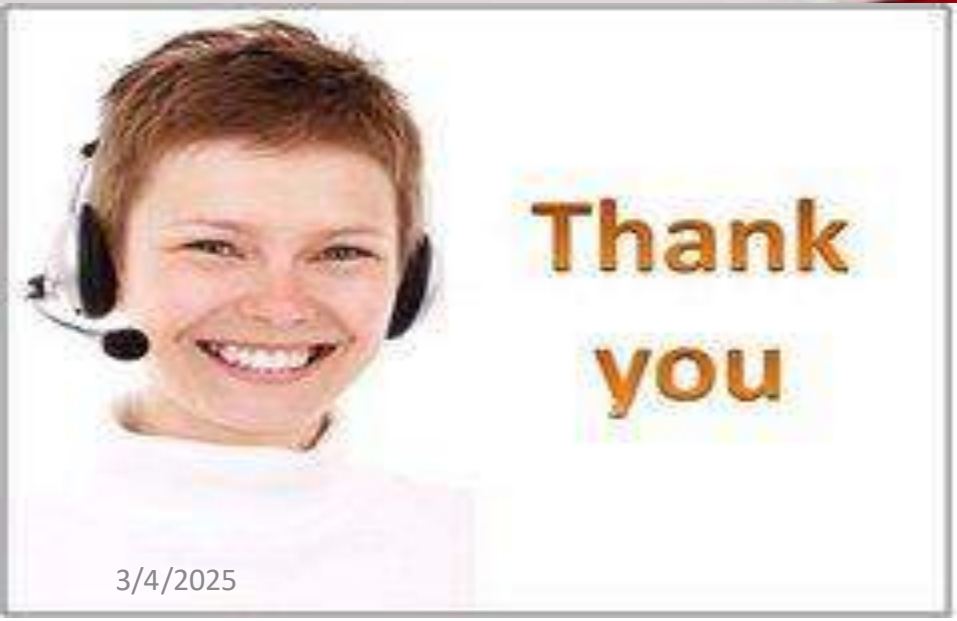
Herbal remedies

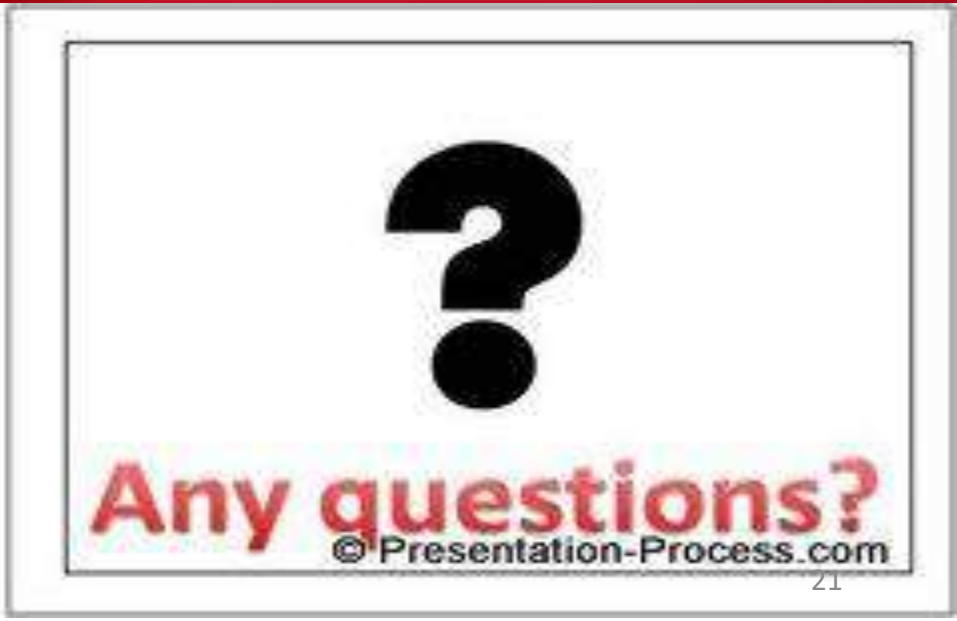
Peppermint oil زيت النعناع appears useful. for improvement of IBS symptoms, at least in the short term. the use of peppermint oil is an effective therapy for adults with IBS

Prognosis

About 1 in 3 IBS patients have had the diagnosis for more than 10 years.
Only 22% of may improvement in symptoms over time,
while 73% their symptoms had not changed.
Although frequently thought of as a lifelong condition,
symptoms of IBS may remit over time. IBS does not reduce life expectancy, but patients with IBS have a higher utilization of health care services.


Thank you ...


Thank
you


?
Any questions?
© Presentation-Process.com

The Bristol Stool Form Scale

Type 1		Separate hard lumps, like nuts (hard to pass)
Type 2		Sausage-shaped but lumpy
Type 3		Like a sausage but with cracks on its surface
Type 4		Like a sausage or snake, smooth and soft
Type 5		Soft blobs with clear-out edges (passed easily)
Type 6		Fluffy pieces with ragged edges, a mushy stool
Type 7		Watery, no solid pieces ENTIRELY LIQUID

UK/COR/0116/0853. Date of preparation: January 2016

The Bristol Stool Chart is used to assist clinicians and patients to further categorize the patient's symptoms.

The presentation of IBS with constipation (IBS-C) in more than 25% of the patient's bowel movements must correspond with type 1 or type 2 on the Bristol Stool Chart, and less than 25% may be type 6 or 7.

The opposite is true for IBS with diarrhea (IBS-D) – more than 25% of bowel movements must be type 6 or 7, and less than 25% may be type 1 or 2.

Patients with IBS with mixed bowel habits have more than 25% of their bowel movements correspond with type 1 or 2 and more than 25% of their bowel movements correspond with type 6 or 7.

Patients with IBS unclassified meet the Rome Criteria for IBS, but their symptoms do not match any of the other 3 classifications.

The Bristol Stool Chart is widely used as a research tool **to evaluate the effectiveness of treatments** for various diseases of the bowel. The chart is used to describe the shapes and types of stools. It is also used as a tool to diagnose constipation, diarrhoea and irritable bowel syndrome.