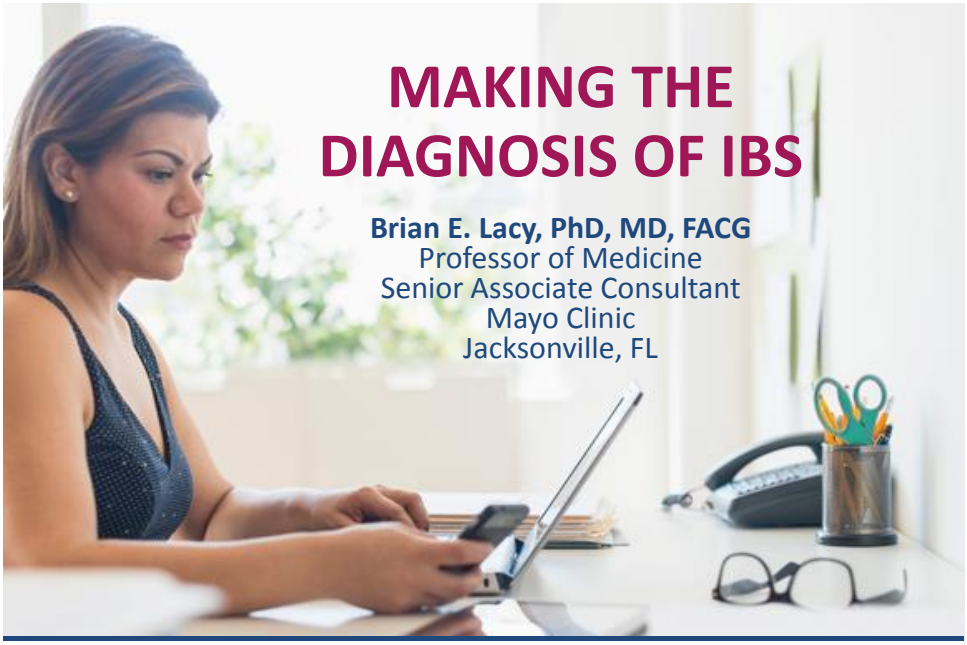

MAKING THE DIAGNOSIS OF IBS

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Jointly provided by
EINSTEIN Albert Einstein College of Medicine
AKH Inc. Advancing Knowledge in Healthcare

In collaboration with
HME Haymarket Medical Education

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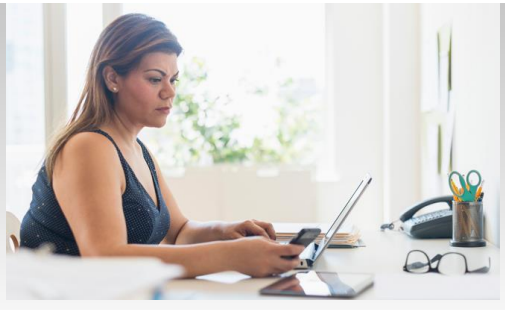

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Learning Objectives

- Describe new data supporting the concept of IBS/CIC as a continuum of gastrointestinal disorders
- Implement appropriate, validated testing measures to make definitive, timely diagnoses of IBS/CIC
- Utilize patient-centric communications strategies to clearly educate patients about their condition

IBS/CIC, irritable bowel syndrome/chronic idiopathic constipation.

3

Case Study: Symptom/Family History

- A.T.: A 33-year-old woman sent for a second opinion
- 3-year history of altered bowel habits and lower abdominal pain present 2 to 3 days per week; transient relief after having a bowel movement (BM)
- May go 2 to 3 days without a BM, then has liquid stool
- Feelings of incomplete evacuation; strains to excess
- Describes a “lump” in her throat; can only eat small meals because she “fills up” so quickly—“like I ate Thanksgiving dinner”

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Case Study: Symptom/Family History (*cont'd*)

- Reports bloating on many days; some days she looks "3 months' pregnant"
- Has gained 40 lb in the last 3 years; BMI=33
- Frequently misses work due to symptoms
- She's been told that she "might" have IBS
- No tobacco use; rare social alcohol use
- No prior surgery
- No family member with celiac disease, IBD, or any type of GI malignancy

BMI, body mass index; GI, gastrointestinal; IBD, inflammatory bowel disease; IBS, irritable bowel syndrome.

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Case Study: Past Medical History

- Notable for TMJ syndrome, migraine headaches, and interstitial cystitis
- Labs 2 years and 1 year prior: normal CBC, BMP, TSH, and CRP on both occasions
- Stool studies x 2: normal
- Normal EGD 2 years ago
- Normal colonoscopy with random biopsies 1 year ago
- Normal RUQ ultrasound
- Normal thyroid ultrasound
- Normal CT scan of abdomen and pelvis

BMP, basic metabolic panel; CBC, complete blood count; CRP, C-reactive protein; CT, computed tomography; EGD, esophagogastroduodenoscopy; RUQ, right upper quadrant; TMJ, temporomandibular joint; TSH, thyroid-stimulating hormone.

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Case Study: Physical Exam

- Examination of heart and lungs: normal
- Abdomen is soft with normal bowel sounds; no masses or guarding
- Some tenderness in bilateral lower quadrants; not distended
- Rectal exam reveals no masses
- During simulated evacuation, she contracts both the EAS and IAS

EAS, external anal sphincter; IAS, internal anal sphincter.

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Case Study: Self-Management

- PEG-3350 helps constipation but not her abdominal pain or bloating
- Avoiding wheat has helped her bloating "a little"
- Loperamide prn helps diarrhea
- A.T. asks what her diagnosis is and whether any other tests are necessary

PEG, polyethylene glycol; prn, as necessary.

8

Diagnosis of IBS Can Be Tricky

No mathematical formula can make the diagnosis

$$\sum \frac{\int \text{Abdominal pain}^{3}}{\text{Depression}^{-3} + \text{Anxiety}^{-2}} + \Delta \frac{\sqrt{\text{Constipation/Diarrhea}}}{\text{Diarrhea}} \times \text{Bloating}$$

$$r + \text{Anemia} + \text{nocturnal symptoms} \times \left[\frac{\text{Extraintestinal symptoms} +}{\text{intestinal non-IBS symptoms}}\right]^{-3}$$

IBS, irritable bowel syndrome.

Used with permission from Dr. F.C. Mearin.

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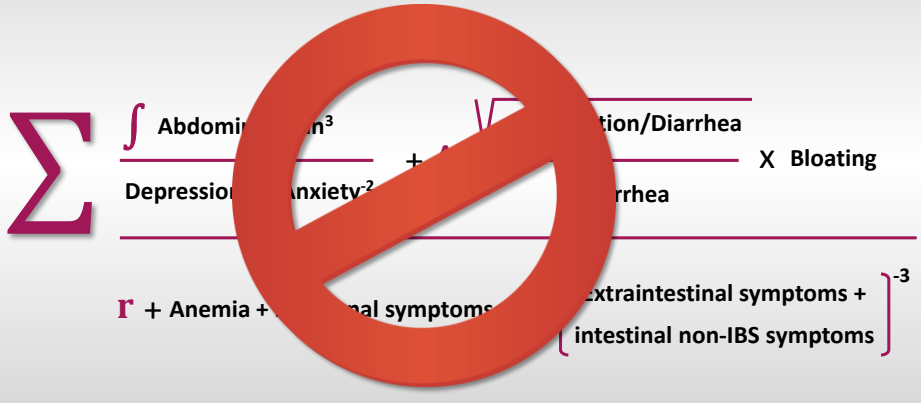
Diagnosis of IBS Can Be Tricky

No mathematical formula can make the diagnosis



IBS, irritable bowel syndrome.

Used with permission by Dr. F.C. Mearin.

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Making the Diagnosis of IBS: A Stepwise Approach

- Take a careful history
- Look for warning signs
- Perform a thorough exam
- Factor in epidemiology
- Use Rome IV criteria
- Classify into the appropriate subtype
- Consider limited diagnostic tests

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History: Key Questions

- Onset of symptoms (acute, chronic)?
- Abdominal pain present?
- Constipation or diarrhea or both present?
- Other GI symptoms present?
  - Think overlap with other GI syndromes
- Presence of common non-GI symptoms?
- Prior tests?
- Prior treatments?
- Fears/concerns/worries?

GI, gastrointestinal.

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Making the Diagnosis: Supporting Symptoms/Comorbid Conditions

- Supporting symptoms
  - Bloating
- Comorbid conditions
  - GERD, globus, noncardiac chest pain
  - Dyspepsia
  - Migraine headaches, TMJ syndrome
  - Fibromyalgia
  - Interstitial cystitis
  - Dyspareunia
  - Chronic back pain

GERD, gastroesophageal reflux disease; TMJ, temporomandibular joint.

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Tip for Diagnosing IBS: The Patient's Chart

Does your patient's chart look like this?

ALLERGIES: sulfa (cough), penicillin (achy), ciprofloxacin (fatigue), metronidazole (funny taste), amoxicillin (spots in my eyes), aspirin (blotches), prednisone (can't remember), diphenhydramine (fatigue), desipramine (constipation), PEG-3350 (diarrhea), dicyclomine (funny taste), hyoscyamine (cramps), linaclotide (diarrhea), lubiprostone (diarrhea), rifaximin (gas).

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Alarm Features for Organic Disorders

- Unintended weight loss (>10% in 3 months)
- Blood in stool not caused/confirmed by hemorrhoids or anal fissures
- Symptoms that awaken the patient
- Fever
- Anemia
- Palpable mass, ascites, lymphadenopathy
- Family history of CRC, IBD, polyposis syndromes, or celiac disease

If alarm features are present, investigate and treat appropriately.

CRC, colorectal cancer; IBD, inflammatory bowel disease

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The Value of a Physical Examination

- Organic disorders can masquerade as IBS
- New diseases/disorders develop over time
- Physical exam validates the patient's reporting
- "Laying on of hands" reassures the patient
- Optimizing value:
  - Don't forget the Carnett's test
  - Watch for the "closed eyes" sign
  - Identify pelvic floor dyssynergia if present

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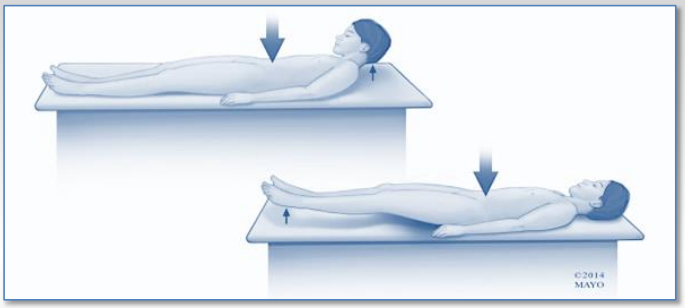
Carnett's Sign



STEP 1: Identify and palpate the point of maximal abdominal tenderness in resting supine position (rest position).

STEP 2: Palpate abdomen while patient raises both legs or while patient raises head and shoulders (tense position).

Positive Carnett's sign

Palpation of abdominal muscles in tense position elicits same or more tenderness as in rest position; indicates musculoskeletal source of tenderness (eg, abdominal wall pain).

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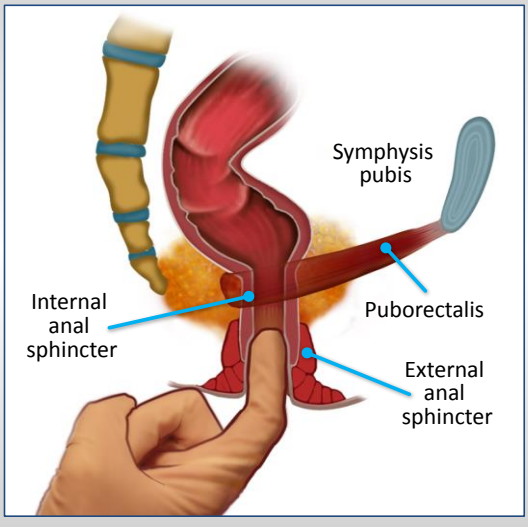
Digital Rectal Exam: Position 1



- **Check anal tone at rest**
- **Ask patient to squeeze**

Rome IV Functional Gastrointestinal Disorders. 4th ed. Raleigh, NC: The Rome Foundation; 2016.

Rao SS, et al. *Gastroenterology*. 2016;150:1430-1442.

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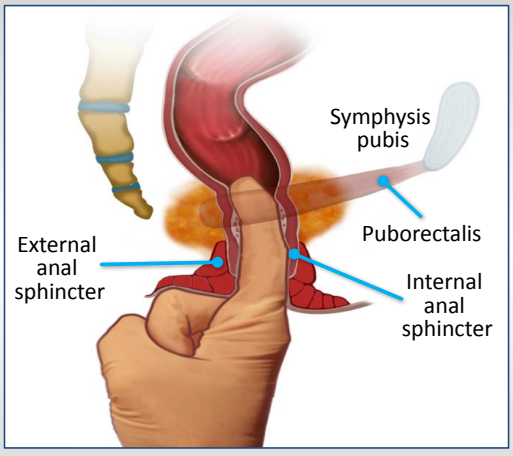
Digital Rectal Exam: Position 2



- **Insert finger deeper and feel puborectalis muscle**
- **Ask patient to squeeze**

Rome IV Functional Gastrointestinal Disorders. 4th ed. Raleigh, NC: The Rome Foundation; 2016.
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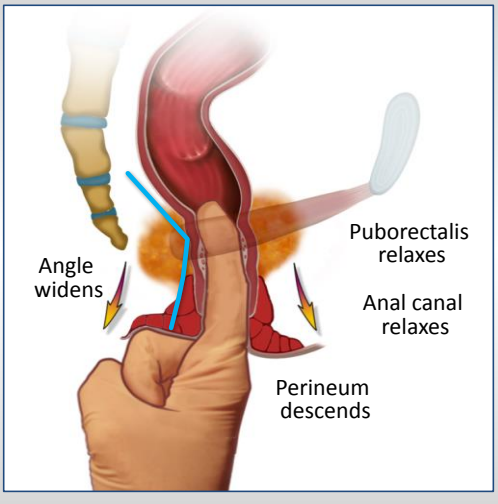
Digital Rectal Exam: Expulsion



- **Normal response (shown)**
  - Almost pushes out finger
- **In pelvic floor dyssynergia, contraction of EAS/IAS**
  - Clamps down around finger

EAS, external anal sphincter; IAS, internal anal sphincter.

Rome IV Functional Gastrointestinal Disorders. 4th ed. Raleigh, NC: The Rome Foundation; 2016.
Rao SS, et al. *Gastroenterology*. 2016;150:1430-1442.

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Factor in Epidemiology: IBS is Common[1-3]

- US prevalence 12% to 14%
  - Diabetes: 9%
  - Thyroid disorder: 6%
- Most common GI disorder addressed by gastroenterologists
- Most common reason for referral to a gastroenterologist
- Much more common than celiac disease (prevalence 0.4%)
- Much more common than IBD (prevalence 0.03%)

GI, gastrointestinal; IBD, inflammatory bowel disease; IBS, irritable bowel syndrome.

1. Lovell RM, Ford AC. *Clin Gastroenterol Hepatol.* 2012;10(7):712-721.
2. Lacy BE, et al. *Gastroenterology*. 2016;150(6):1393-1407.
3. Ford AC, et al. *N Engl J Med*. 2017;376(26):2566-2578.

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Rome IV Criteria for IBS

Recurrent abdominal pain at least 1 day/week (on average) in the last 3 months associated with ≥2 of the following:

- **Related to defecation**
- **Associated with a change in frequency of stool**
- **Associated with a change in form (appearance) of stool**

Criteria fulfilled for the last 3 months with symptom onset at least 6 months prior to diagnosis

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IBS Subtypes Based on Stool Consistency: Rome IV Classification

Bristol Stool Form Scale[1]		Days With Abnormal BMs[2]
Type 1: Separate hard lumps, like nuts (hard to pass) **Type 2:** Sausage-shaped but lumpy		**IBS-C** **Hard/lumpy stools ≥25%** **Loose/watery stools <25%**
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-cut edges (passed easily)		**IBS-M** **Hard/lumpy stools ≥25%** **Loose/watery stools ≥25%**
Type 6: Fluffy pieces with ragged edges; a mushy stool **Type 7:** Watery, no solid pieces; entirely liquid		**IBS-D** **Hard/lumpy stools <25%** **Loose/watery stools ≥25%**

BMs, bowel movements; IBS-C, irritable bowel syndrome with constipation; IBS-D, irritable bowel syndrome with diarrhea; IBS-M, mixed irritable bowel syndrome.

1. O'Donnell LJ. *BMJ*. 1990;300(6722):439-440.
2. Lacy BE, et al. *Gastroenterology*. 2016;150(6):1393-1407. Reprinted with permission from Elsevier. © 2016.

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Rome IV: Limited Diagnostic Testing Helps Make a Positive Diagnosis

- In the appropriate patient, consider:
  - CBC, CRP (or ESR), fecal calprotectin
  - Celiac serologies
- Not all patients require testing
- No role for colonoscopy in every patient
- Take-home message: Make a positive diagnosis based on symptoms and limited testing and initiate treatment

CBC, complete blood count; CRP, C-reactive protein; ESR, erythrocyte sedimentation rate.

Lacy BE, et al. *Gastroenterology*. 2016;150(6):1393-1407.

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Making a Positive Diagnosis: Use Clear, Patient-Centric Language

Clear	Qualified
"She has…"	"…may be having…"
"He is suffering from…"	"…it is possible that…"
"…has been diagnosed with…"	"…quite fits the picture of…"
"…the diagnosis is that of…"	"…is probably a reasonable label…"
"You definitely have…"	"…working impressions…"
"I have diagnosed you with…"	"…managed as a case of…"

Linedale EC, et al. *Clin Gastroenterol Hepatol*. 2016;14(12):1735-1741.

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Summary: 7 Key Features of the Positive Diagnosis of IBS

1. Clinical history
   - Medical, surgical, dietary, psychological
   - Alarm/warning signs
2. Check for warning signs
3. Physical examination—include digital rectal exam
4. Factor in epidemiology
5. Use Rome IV criteria and IBS subtypes
6. Minimal (limited) laboratory tests
7. Use clear language—be positive

Ford AC, et al. *New Engl J Med*. 2017;376:2566-2578.

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