

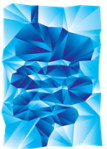
# NORTON

EDUCATION SERIES

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The following slides were presented during the *Nancy and Bill Norton Education Series* Event at the University of Michigan Food for Life Kitchen. To view this presentation and the all videos available during this program, please visit <http://bit.ly/NES2020MI>.

1



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## **Constipation** **Symptoms, evaluation, causes, and treatment**

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2

- **Disclosures**

- Consultant- Alnylam



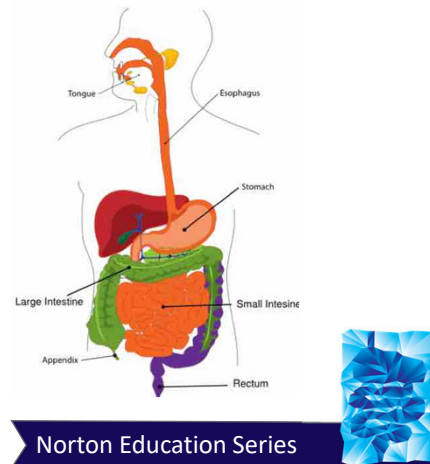
- **Aims**

- Discuss prevalence of constipation
- Review causes, symptoms, evaluation, and treatment of constipation
- Discuss general constipation tips and tricks



- **How common is constipation?**

- **Estimated prevalence around 16% in the general population**
  - range of 1-27% reported in studies
  - Lack of consistency between studies regarding constipation criteria/definition
- **Up to 30% of children**
  - 3-5% of all pediatrician visits
- **24-50% of “older adults”**
- **Increased occurrence**
  - Traveling
  - Change in diet or activity
  - Stress
  - Hormone changes



Pinto Sanchez MJ, Bercik P. Can J Gastroenterol. 2011 Oct; 25(Suppl B): 11B-15B

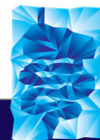
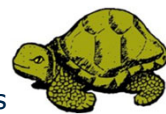
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5

- **Causes of Constipation**

- **Subcategories**

- Normal Transit
  - Stool lacks water or bulk
- Slow Transit
  - Colon lacks squeeze strength to push stool through
  - Can be associated with connective tissue or neuromuscular disorders
- Evacuation Disorder
  - “The exit is blocked”
    - Pelvic floor muscle disorder (dyssynergic defecation)
    - Structural (rectal prolapse, rectocele, etc.)
    - Associated with pelvic surgery/vaginal deliveries, chronic bowel symptoms



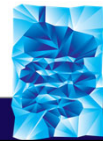
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6

- **Constipation Diagnoses**

- Chronic idiopathic constipation
- Irritable Bowel Syndrome with constipation (IBS-C)
  - Must have abdominal pain as a symptom
- Functional constipation
- Opiate-induced constipation
  - Must be associated with opiate use

....for today's talk, we are going to talk generally about constipation



- **Symptoms of constipation**

Symptom
Hard stools
Infrequent stools
Sense of incomplete evacuation
Abdominal pain/cramping
Bloating
Diarrhea (overflow diarrhea)
Fecal incontinence
Straining
Painful passage of stool

Bristol Stool Scale	
<b>Type 1</b>	Separate hard lumps
<b>Type 2</b>	Sausage-shaped, but lumpy
<b>Type 3</b>	Sausage-shaped, cracks on the surface
<b>Type 4</b>	Sausage or snake-shaped, smooth and soft
<b>Type 5</b>	Soft blobs with clear-cut edges
<b>Type 6</b>	Fluffy pieces with ragged edges, mushy
<b>Type 7</b>	Watery, no solid pieces. Entirely liquid



- **Evaluation**

- **"Red flag symptoms"**

- Weight loss, rectal bleeding, new onset constipation → **Colonoscopy**



- **Physical exam**

- Abdominal exam, rectal exam, joint hypermobility evaluation, thyroid evaluation



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9

- **Evaluation**

- **Testing**

- Blood tests
  - CBC (anemia), CMP (electrolyte abnormalities), TSH (thyroid dysfunction)
- Motility/pelvic floor testing
  - Anorectal manometry (evaluates pelvic floor muscles)
  - Defecography (evaluates for pelvic floor structural issues)
  - Sitz marker test, SmartPill, or scintigraphy (evaluates colon transit time)
  - Colonic manometry (evaluates colon squeezing)



- **Medications**

- Blood pressure (beta-blockers, calcium-channel blockers, diuretics)
- Pain medications/muscle relaxants
- Anti-spasmodics (hyoscyamine, dicyclomine)
- Supplements (iron, aluminum, calcium)
- Nausea medications (ondansetron)



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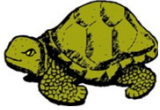


10

## • Treatment



- Increase water content
  - Increase water and fiber in diet
  - Osmotic laxatives "pull"/keep water in the colon (magnesium, miralax)
  - Make the small bowel to secrete more water (lubiprostone, linaclotide, plecanatide)

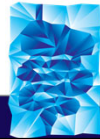


- Slow Transit
  - Exercise
  - Prokinetics (make the colon squeeze)
    - Senna, bisacodyl, prucalopride, pyridostigmine



- Evacuation Disorder
  - Pelvic floor physical therapy with biofeedback therapy
  - Surgical management or pessary for rectocele, surgery for rectal prolapse

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11

## • Treatment- Choosing treatment

### • Dietary and lifestyle modifications

- Increase water intake (64+ oz per day)
- Increase fiber intake (25-30 g/day)
- Exercise
- Prunes or kiwi
- Unclear benefit of probiotics, prebiotics, and synbiotics
- Diet modifications for bloating/gas may help (i.e. low FODMAP diet)

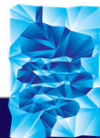


### • OTC pharmacologic therapies

- Bulking agents (psyllium, fiber supplements)
- Stool softeners (docusate sodium/ Colace)
- Osmotic laxatives (PEG 3350/miralax, magnesium, lactulose)
- Stimulants (senna, bisocodyl, castor oil, cascara, aloe)
- Enemas/suppositories



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12

- **Treatment- Choosing treatment**

- **Prescription pharmacologic therapies**

- Prosecretory agents (lubiprostone, linaclotide, plecanatide)
    - Prokinetic agents (prucalopride, tegaserod, mestinon)



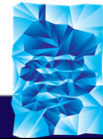
- **Pelvic floor physical therapy**

- Pelvic floor physical therapy with biofeedback therapy



- **Other/future therapies**

- Acupuncture
    - Vibrating capsule (Vibrant Capsule)

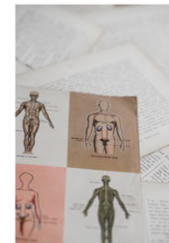


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13

- **Multi-disciplinary approach to constipation management**

- Primary care
  - Gastroenterology
  - Registered dietitians
  - GI Behavioral Health specialist
  - Pelvic floor physical therapist
  - Urogynecology
  - Colorectal surgery
  - GI physiology lab technicians
  - GI nursing

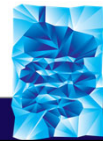


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14

- **Complications/consequences of constipation**

- Hemorrhoids
- Anal fissures
- Diverticulosis
- Pelvic floor dyssynergia



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15

- **Tips**

- Be proactive at preventing constipation before it starts, particularly if constipation tends to occur while traveling, during the winter, during menstruation, etc.
- Allow yourself enough time to have a bowel movement
- It is normal to have the urge to have a bowel movement after meals (gastrocolic reflex)
  - Try to not ignore the urge to have a bowel movement.
- Try to avoid chronic/daily use of stimulant laxatives.
- Seek medical care if new constipation occurs, chronic constipation worsens, or “red flag” symptoms develop.
- Diet, activity, and hormones often change, and so can a bowel regimen.
  - It is ok to adjust the regimen based on what the body needs during different times.



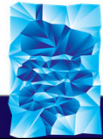
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16



- **Questions to ask your doctor**

- What's the most likely cause of my symptoms?
- Are there any tests I need to evaluate the cause of my constipation, and how do I need to prepare for them?
- What treatment do you recommend?
- If the initial treatment doesn't work, what will you recommend next?
- Do you have a dietician available I can speak to?
- Are any of my medications potentially causing constipation?



**Thank you for your time and attention.**

