

POOPING IN ALL THE WRONG PLACES

Understanding the Impacts and Treatment of Constipation and Encopresis


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1

Disclosures


I have no disclosures




2

Learning Objectives

1. Understand constipation and how it progresses to encopresis
2. Impacts of constipation and encopresis on child's school participation and peer relationships
3. Treatments for constipation and encopresis
4. How you can help in your school environments.



3



HPI: 6-year-old girl presents with soiling in her underwear. She passes a large bowel movement on the toilet every 1 ½ weeks. Her abdominal pain is random and is not associated with eating or certain foods.

PMH: Hard stools with straining began at 13 months of age.

PE: Palpable fullness in LLQ with mild tenderness. Rectal exam reveals large, hard stool in a dilated rectal vault.



4

Constipation

- Prevalence of up to 30% in North America
- Very common referral to pediatric gastroenterologists (up to 25%)
- If left untreated, can progress to fecal incontinence, psychological problems, and social isolation



Robin SG et al. J Pediatr. 2018;195:134. Epub 2018 Feb 3.



Encopresis

The recurrent passage of stool into the underwear in a child after acquisition of toileting skills (typically 4 years of age), excluding children with organic disorders or spinal cord lesions.

- Involuntary encopresis (90% of cases): often loose/pasty consistency.
 - Associated with chronic stool withholding and associated leakage of stool.
- Voluntary encopresis: passage of normal stools in clothing.
 - May represent significant psychological problems.

Pauley-Hunter, R, Clinical Handbook of Pediatric Gastroenterology, 2nd Ed. 2015.



What Defines Normal Stooling?

TABLE 1. Normal frequency of bowel movements

Age	Bowel movements per week ^a	Bowel movements per day ^b
0-3 Months		
Breast-fed	5-40	2-9
Formula-fed	5-28	2-9
6-12 months	5-28	1-8
1-3 years	4-21	1-4
More than 3 years	3-14	1-0

NASPGHAN Clinical Practice Guidelines: JPGN 43: Sept 2006

- 97% of the population (>4yo): BM 3x/week to 3x/day
- 68% of adults: 1 BM/day



Be Descriptive!

Bristol Stool Chart

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-cut edges (passed easily)
Type 6	Fuffy pieces with ragged edges, a mushy stool
Type 7	Watery, no solid pieces. Entirely Liquid

choose your POO!

Poop #1	rabbit droppings
Poop #2	bunch of grapes
Poop #3	corn on cob
Poop #4	sausage
Poop #5	chicken nuggets
Poop #6	porridge
Poop #7	gravy



Constipation Rome IV Diagnostic Criteria

Age <4 Years

- ≥2 of the following at least 1x/week for at least 1 month
- ≤2 bowel movements per week
 - History of retentive posturing or excessive stool retention
 - History of painful or hard bowel movements
 - History of large-diameter stools
 - Large fecal mass in rectum
 - If toilet trained:
 - History of large stools that may clog toilet
 - ≥1 incontinence episode per week

Age ≥4 Years

- ≥2 of the following at least 1x/week for at least 1 month without criteria for a diagnosis of irritable bowel syndrome
- ≤2 bowel movements per week of a developmental age of ≥ 4 years
 - ≥1 incontinence episode per week
 - History of retentive posturing or excessive stool retention
 - History of painful or hard bowel movements
 - Large fecal mass in rectum
 - History of large diameter stools that may clog toilet



9

9

Factors Leading to FUNCTIONAL Constipation

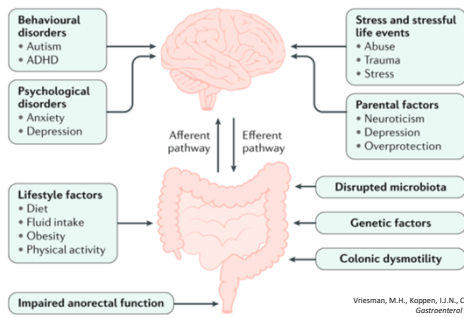
- Illness
- Stress
- Change in diet or poor diet
- Introduction to solids, cow's milk
- Poor fluid take, fiber intake
- Too busy to stop playing
- One painful stool leads to withholding



10

10

Fig. 1: Pathophysiological factors of functional constipation in adults and children.



Vriesman, M.H., Koppen, L.J.N., Camilleri, M. et al. *Nat Rev Gastroenterol Hepatol* 17, 21–39 (2020)



11

Typical Time Periods of Constipation



12

12

Differential Diagnosis of Constipation

Anorectal / Anatomic:

- Anorectal malformations
- Stricture (post-NEC)

Neuropathic / Motility:

- Hirschsprung's disease
- Intestinal neuronal dysplasia
- Pseudoobstruction
- Cerebral Palsy

Spinal Cord:

- Spinal bifida or spinal tumor
- Tethered Cord

GI Inflammatory disease:

- Milk protein allergy
- Celiac disease
- IBD

Systemic disorder:

- Endocrine (thyroid, DM)
- Electrolyte (Ca, K)
- Cystic Fibrosis
- Anorexia Nervosa
- Autoimmune (scleroderma)

Drugs / toxins:

- Lead
- Anticholinergics
- Iron or Vitamin D toxicity
- Analgesics
- Antidepressants

Functional:

- Retentive Constipation
- Nonretentive fecal incontinence
- Toilet phobia/school bathroom avoidance
- Autism
- ADHD
- Depression
- Abuse

13

13

Treatments for Constipation

Education: Explain the mechanism and prognosis for constipation

Diet: Ensure adequate fiber and fluids in diet; limit/avoid applesauce, bananas, rice, breads, chocolate, dairy

Exercise

Behavioral changes: Toilet sit times 3-5 min after meals, stool under feet, star chart

If constipation persists despite diet modification start medication:

- Miralax 0.2-0.8 g/kg/day
- Lactulose 1ml/kg 1-2 times a day
- Milk of Magnesia 1-3ml/kg/day divided
- Senna or Ex-lax starting dose 8.6-17mg/day



14

14

Treatment for Constipation

Osmotic Laxatives

Create osmotic gradient within intestinal lumen, drawing water in; increased fluid distends the lumen, softens and loosens the stools.

1. Polyethylene Glycol/Miralax (PEG 3350)
2. Lactulose
3. Magnesium Hydroxide, Magnesium Citrate

Stimulant Laxatives

Increase intestinal motility by direct interaction at enteric nerves

1. Senna/Ex Lax
2. Bisacodyl

15

15

Encopresis

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Pauley-Hunter, R, Clinical Handbook of Pediatric Gastroenterology, 2nd Ed. 2015. 16

16

IMPACTS of Soiling in School Age Child

- Fears of using bathroom at school so withhold as long as possible (lack of doors/privacy, fear of peers hearing them go, safety concerns)
- Increased anxiety around fear of soiling self at school
- Teasing by peers if soiling occurs, impacts on peer relationships
- Fear of punitive response by educators if soils or need for frequent trips to restroom
- Impacts on relationship with parents/siblings as this can sometime take over family life
- Missed days of school/work
- Impact on mental health leading to anxiety, depression
- Difficulty forming friendships, isolation from peers



17

17

Constipation and Encopresis

- Treatment guidelines for encopresis include both medical and behavioral strategies (e.g., positive, consistent toileting routines; adherence to high-fiber diet regimens and medications).
- At 3.5-5 year follow up in children who received...
 - Comprehensive behavioral interventions (after failing medical treatment)= 82.8% success rate
 - Medical management alone = 36-58% success rate
- Treatment guidelines for encopresis include both medical and behavioral strategies (e.g., positive, consistent toileting routines; adherence to high-fiber diet regimens and medications).



Felt, Brown, Van Harrison, Kochhar, & Patton, 2008



18

18

The Soiling School Age Child

The "Clean Out"

- Clear liquid diet
- 1 capful Miralax in 8 oz liquid every 2 hours x 1-2 days
- 1 square Ex-lax BID x 1-2 days
- Suppositories and/or Enemas if fecal impaction

Goal is lemonade-consistency stools

Typical Maintenance regimen

- 1 capful Miralax in 6-8 ounces of a clear liquid daily (TYPICAL)
- Start at 1 square Ex-lax daily (MOST EFFECTIVE) and titrate to effect of daily soft BM



19

19

Treatment for Encopresis Outside of Medication Therapy

- Evaluate for sensory component to toileting difficulties ----->
- Evaluate for possible gait abnormality or weakness IF YOU LEAK, YOU'RE WEAK! - ----->
- Evaluate for behavioral, emotional and developmental factors (i.e., anxiety, attention difficulties, developmental delays, etc.)----->
- Referral to Occupational Therapy
- Referral to Physical Therapy for pelvic floor therapy/biofeedback
- Referral to mental health services



20

20

Constipation Intervention from Behavioral Health Perspective

Psychoeducation

Help the child and family understand:

- What is happening
- Why treatment helps
- What to expect from the routine

Structured Sits

Help family develop a directed toilet sit schedule:

- Schedule 3-6 toilet sits per day
- Keep sits brief and individualized
- General guide: ~1 minute per year of age
- Focus on consistency, not duration

Relaxation & Reinforcement

Help family understand that the goal is **relaxation**, not forcing a bowel movement

- Use calming tools: bubbles, balloons, pinwheels, kazooes
- Reward participation immediately
- Use calm, positive attention to reinforce progress



21

Long Term Prognosis

- Improvement can be expected in virtually all patients who adhere to treatment recommendations, but this can be a struggle as complete recovery is seen less often.
- Recovery rates increase significantly over time: approximately 30 to 50 percent after one year and 48 to 75 percent after five years
- Risk factors for lack of long-term recovery included older age at onset, longer delay before referral to a pediatric gastroenterologist, and fewer bowel movements per week at presentation.

Loening-Baucke V; J Pediatr Gastroenterol Nutr. 2001



22

Overcoming Fears of Long-Term Treatment

- Poorly treated constipation leads to psychological consequences predisposing children to develop significant psychological damage and bowel dysfunctions.
- Most non-pharmacological interventions are not effective in the day-to-day management of childhood constipation. The use of laxatives remains the first-line management strategy
- Dependency on laxatives and rebound constipation after withdrawal of drugs, are largely unfounded.

Myths and misconceptions about childhood constipation; European Journal of Pediatrics, Volume 182, pages 1447-1458, 23 January 2023

- Delaying proper treatment by persistently searching for an underlying etiology of patient's constipation, minimizing symptoms, or avoidance of stimulant laxatives due to concern for dependence may result in long-term complications from RC

Evaluation and management of pediatric refractory constipation: Recommendations from NASPGHAN neurogastroenterology and motility committee; Journal of Pediatric Gastroenterology and Nutrition, Kilgore, A. JPGN 2025; 80:353-373



23

How Long To Treat?

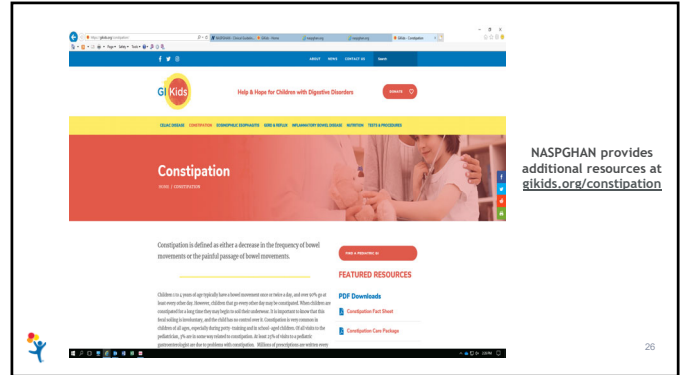
- At least 6 months-1 year
- All symptoms of constipation should be resolved for at least 6 month prior to cessation of laxatives
- Treatment should be decreased gradually



24

What Can You Do To Help?

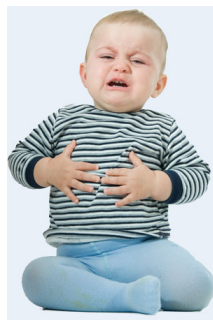
- Work with educators on toilet sit schedule that is not disruptive to learning environment
- Provide private bathrooms for children who endorse fears of public restroom
- Reinforce compliance with medications
- Support at will bathroom passes with educators
- Praise children/teens for paying attention to body signals and complying with toilet sit recommendations
- Notify parents of soiling at school if change in bowel habits, concerns for bullying changes in mental health status



**We're all backed up...
but we have a plan to
get things moving!**

**Constipation Clinic at Children's
Hospital of Colorado**
Melanie Merrill-Kennedy, PA-C
Juliette Hawa, DPT

When: 1st and 3rd Wednesdays at CHCO Main
Campus



**Thank
you!**



BIOFEEDBACK



Using Biofeedback Therapy for Bowel Movements (4:04)
The Children's Hospital of Philadelphia



29

29



The Poo in You

Children's Hospital Colorado



30