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The Ins & Outs of Bowels (the 2nd)

Bev Vaillancourt, *Health Care Facilitator*
Central East Network of Specialized Care

Angie Gonzales, *Health Care Facilitator*
Toronto Network of Specialized Care

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Videoconference presentation

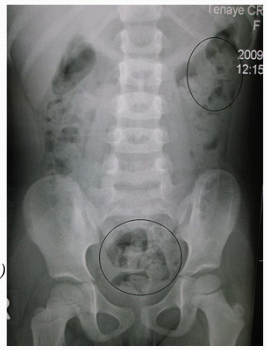
Presentation Outcomes

- Discuss bowel health, constipation & bowel routine
- Use caregiver tools & other resources to try to promote bowel health for individuals with developmental/intellectual disabilities
- Discuss complications & examples of issues/challenges
- Identify dietary & medication considerations
- Identify when to go to a health care provider for help & when to go to urgent care/emergency department

Important to know…

- Gastro-intestinal disease in one of the top 3 causes of death for people with developmental disabilities

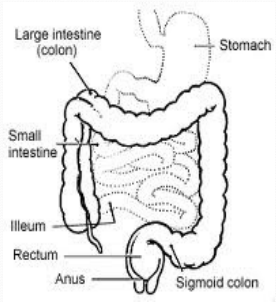
(Reference Cooper 2004; Sullivan et al. 2011)



Bowels - Did You Know?

- The bowel or 'colon' (large intestine) is 4-ft long
- It's the last part of your digestive system where stool is stored & water is absorbed
- The longer stool stays in the colon = more water absorbed & harder stool
- Rectum is 8-inches long, end of the bowel & is a 'stool pouch'
- About ½ cup of stool in the rectum triggers urge to 'evacuate' stool but if ignored, this urge disappears
- As more stool moves down into the rectum, the urge returns

Our Gastro-intestinal (GI) System



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Did You Know continued…

- Bowel movements usually happen after a big meal when a massive 'push down' of contents in the GI tract makes room for incoming food
- Drinking a warm liquid or exercising can also bring on the urge to have a bowel movement

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Primary Care of Adults with Developmental Disabilities guidelines:
available on Surrey Place Centre's website
(enter "Primary Care" in Search)

http://www.surreyplace.on.ca/Primary-Care/Pages/Home.aspx

Clinical Review

Primary care of adults with developmental disabilities

Canadian consensus guidelines

DD Primary Care Guidelines: GI Considerations

15. Gastrointestinal and feeding problems are common among adults with DD. Presenting manifestations are often different than in the general population and might include changes in behaviour or weight.[81-83]

Adults with DD might have an increased risk of *Helicobacter pylori* infection related to factors such as having lived in a group home, rumination, or exposure to saliva or feces due to personal behaviour or environmental contamination.[83,85,86]

DD Primary Care Guidelines: GI Recommendations

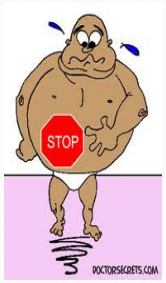
a. Screen annually for manifestations of GERD and manage accordingly. If introducing medications that can aggravate GERD, monitor more frequently for related symptoms.[83,84]
b. If there are unexplained gastrointestinal findings or changes in behaviour or weight, investigate for constipation, GERD, peptic ulcer disease, and pica.[82,84]

c. Screen for *H pylori* infection in symptomatic adults with DD or asymptomatic ones who have lived in institutions or group homes. Consider retesting at regular intervals (eg, 3-5 y).[83]
d. Consider urea breath testing, fecal antigen testing, or serologic testing depending on the indication, availability, and tolerability of the test.[83,85]

When Am I Really Constipated?

- Constipation generally occurs if you have 3 or fewer bowel movements each week, and stools are hard, dry, and difficult to pass.
- *How else would you know with a non-verbal client who has a developmental disability?*

(References: digestive.niddk.nih.gov, MayoClinic.com, emedicine.medscape.com)



Checklist of Nonverbal Pain Indicators (CNPI)

Instructions: Observe the patient for the following behaviors both at rest and during movement.

Checklist of Nonverbal Pain Indicators (CNPI)

Behavior	With Movement	At Rest
1. Vocal complaints: nonverbal (Sighs, gasps, moans, groans, cries)		
2. Facial Grimaces/Winces (Furrowed brow, narrowed eyes, clenched teeth, tightened lips, jaw drop, distorted expressions)		
3. Bracing (Clutching or holding onto furniture, equipment, or affected area during movement)		
4. Restlessness (Constant or intermittent shifting of position, rocking, intermittent or constant hand motions, inability to keep still)		
5. Rubbing (Massaging affected area)		
6. Vocal complaints: verbal (Words expressing discomfort or pain [e.g., "ouch," "that hurts"]; cursing during movement; exclamations of protest [e.g., "stop," "that's enough"])		
Subtotal Scores		
Total Score		

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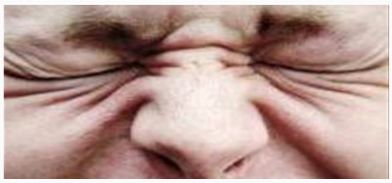
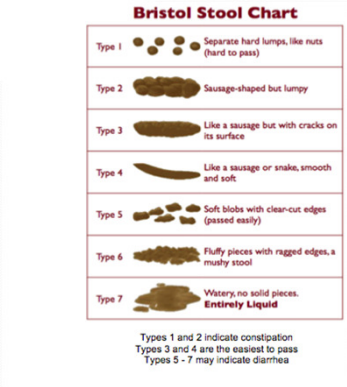
Overview of Common Causes of Constipation

- Poor diet & fluid intake
- Poor bowel habits
- Medications
- Diseases or disorders
- Age
- Lack of exercise



Types of BMs: Stool Chart

What's "Normal"?



Constipation Is A Side Effect of Many Meds

- Antipsychotic meds are often prescribed for people with developmental disabilities & have a number of side-effects
- Constipation is common & potentially serious side-effect
- A high prevalence of constipation, often severe & needing medical interventions is confirmed in literature/research studies
- Early detection, monitoring & early intervention could prevent serious consequences

(Reference: Oziblen & Adams, 2009)

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Examples of GI Effects of Psychotropic &/or Seizure Meds:

MEDICATION	Mechanism	GI side effects?
Atropine	Anticholinergic, anti-Parkinsonism	Relaxes GI & GU tracts
Clozaril (Clozapine)	Anticholinergic, blocks dopamine receptors	Constipation, nausea
Clonazepam	Anti-epileptic, potentiates inhibitory transmitter	Constipation &/or diarrhea, nausea
Olanzapine	Anticholinergic, blocks dopamine receptors	Constipation
Lamotrigine	Anti-epileptic	Nausea
Diazepam & Lorazepam	Anxiolytic, anti-epileptic	Constipation &/or diarrhea, nausea

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Meds that Can Cause Constipation

Table 3 Medications associated with constipation

Prescription drugs
• Antidepressants
• Antiepileptics
• Antihistamines
• Antiparkinson drugs
• Antipsychotics
• Antispasmodics
• Calcium-channel blockers
• Diuretics
• Monoamine oxidase inhibitors
• Opiates
• Sympathomimetics
• Tricyclic antidepressants

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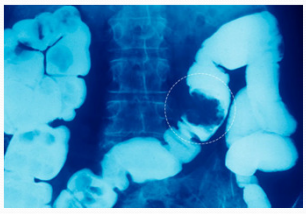
Complications: Symptoms of Abdominal Blockage

- Intestinal obstruction is a blockage of the small intestine or colon preventing food/fluid from passing through, & can be caused by many conditions

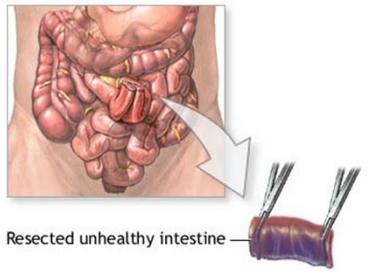
Symptoms include:

- Distress behaviours
- Indigestion
- Stomach upset, reflux
- Nausea &/or vomiting
- Diarrhea
- Gastric ulcers
- Pain



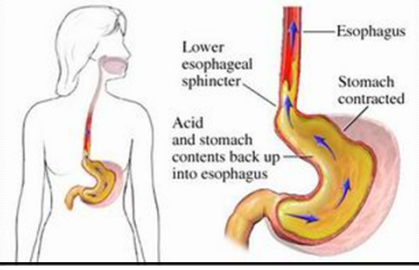
Complications: Abdominal Blockage

- Surgery & hospital stay can be risky



Complications: GERD & Constipation

- Constipation is linked to causing or worsening symptoms of GERD
- It increases the tendency to reflux by raising pressure inside the stomach cavity



Complications: GERD & Constipation

- Symptoms of GERD in adults = frequent heartburn (acid indigestion), dry cough, asthma symptoms, trouble swallowing, regurgitation
- In adults with DD, symptoms may = vomiting, rumination, depressive symptoms, distress behaviours

Complications: GERD & Constipation

Table 1 Pulmonary Conditions Due to or Complicated by GERD

1. Chronic Cough
2. Asthma
3. Pulmonary Fibrosis (Idiopathic or Secondary)
4. Sleep Apnea
5. Chronic Obstructive Pulmonary Disease (COPD)
6. Aspiration Pneumonia
7. Lung Abscess
8. Bronchiectasis
9. Laryngitis

(Reference: Bajwa 2011)

Complications: Pica

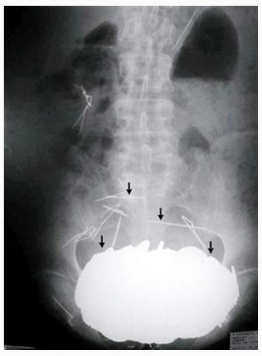
DSM-5 Proposed Revision

A. Persistent eating of non-nutritive, non-food substances over a period of at least 1 month
B. The eating of non-nutritive, non-food substances is inappropriate to the developmental level of the individual (a minimum age of 2 years is suggested for diagnosis)
C. The eating behavior is not part of a culturally supported or socially normative practice
D. If the eating behavior occurs in the context of another mental disorder (e.g., Intellectual Developmental Disorder, Autism Spectrum Disorder, Schizophrenia) or medical condition (including pregnancy), it is sufficiently severe to warrant additional clinical attention

Complications: Pica

- "Pica" word = Latin for "magpie"
- Pica is a very serious & often life threatening problem
- Pica occurs in much higher rates in persons with intellectual/ developmental disabilities relative to the general public
- Prevalence of pica in people with DD is between 5 to 25 %
- May also occur after brain injury, in pregnant women or people with epilepsy

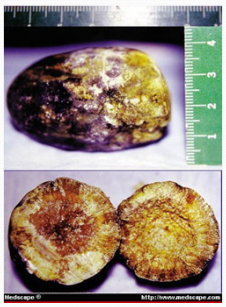
Pica-Risks Include Bowel Complications



- X-ray from a man with pica
- The large white area on the radiograph is a collection of hundreds of coins, needles & other objects

Pica-Risks Include Bowel Complications

- A bezoar is a ball of swallowed foreign material that collects in the stomach/bowels and fails to pass through the intestines
- Requires surgical removal
- Cases of death due to massive gastrointestinal bleeding from a large gastric ulcer caused by **bezoars**
- Surgery can be difficult because objects can become hardened & matted in the intestinal track



Complications: Women's 'Bowel Cycle'

- Research indicates that women describe getting premenstrual constipation &/or diarrhea with menstruation
- Explanations proposed =
  - raised progesterone level in the luteal phase (after ovulation) reduces GI motility
  - release of uterine prostaglandins at start of menses stimulates gut muscles to contract, increasing motility

(Reference: Vlitos & Davies, 1996; Zutshi et al,. 2007)

About Bowel Routines…

- **Establish a regular pattern that best fits into the daily schedule**
- Take advantage of the stomach reflex, which moves the bowel at 20-60 minutes after eating
- Drink lots of fluids (2L & water is best) to keep the stool soft
- Exercise regularly
- Use constipation management medications
- Eat a balanced diet with high-fibre foods
- Avoid things that irritate &/or slow the bowel: caffeine, alcohol, chocolate, spicy foods, dairy products, white bread, rice, bananas

How To Set Up A Bowel Program:

- ✓Understand the basics by collecting info about bowel history (past & present bowel elimination patterns), medical history, diagnoses, diet & medications
- ✓May need creative communication strategies
- ✓Appropriate diet & fluid intake are essential
- ✓Determine the best time & be consistent with same time every day, 20-30 minutes after a meal

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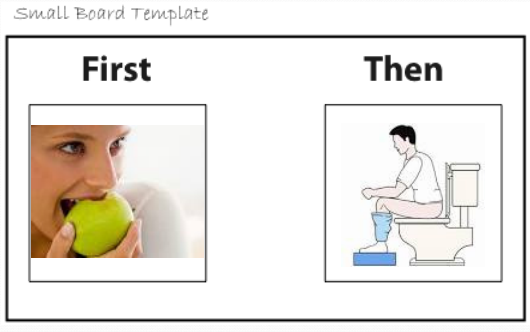
How To Set Up A Bowel Routine continued…

- ✓Ensure medications correlate with most effective time
- ✓Ensure meals are at predictable times
- ✓Regular exercise & abdominal massage encourages normal movement of stool
- ✓Time, comfort, privacy, relaxation & good positioning help create a productive atmosphere
- ✓Keep it simple & be patient, training a bowel takes time

Communication Strategies?



Seating Guidelines

- *Relaxing, private space & activity*
- Comfortable, balanced & secure position
- Should use minimum conscious effort & energy to stay seated
- Head, trunk & pelvis should be stable, in a neutral position & body weight evenly distributed across buttocks and thighs
- Hips and knees flexed at 90 degrees
- Feet should be supported on floor or stool (ankles at 90 degrees)

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Dietary Considerations – Canada's Food Guide

Recommended Number of Food Guide Servings per Day

Age in Years	Children 2-3	Children 4-8	Children 9-13	Teens 14-18	Teens 14-18	Adults 19-50	Adults 19-50	Adults 51+	Adults 51+
Sex	Girls and Boys	Girls and Boys	Girls and Boys	Females	Males	Females	Males	Females	Males
Vegetables and Fruit	4	5	6	7	8	7-8	8-10	7	7
Grain Products	3	4	6	6	7	6-7	8	6	7
Milk and Alternatives	2	2	3-4	3-4	3-4	2	2	3	3
Meat and Alternatives	1	1	1-2	2	3	2	3	2	3

Fiber & Fluid

- Recommended daily fiber: Women need 25g per day & men should get 38g per day
- Fiber swells, adds bulk & weight to stool so that bowel movements can occur regularly
- Soluble fiber (binds with water & slows digestion) vs. insoluble fiber (adds weight to stool so it passes quicker) = both healthy
- Adequate intake of fluid for men = approx 3 L per day
- Adequate intake of fluid for women = approx 2 L per day
- "Drink eight 8-ounce glasses of water a day" = approx 1.9 L

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Dietary Considerations

FOOD GROUP	Harden Stool	Soften Stool
Milk	-milk, plain yogurt, cheese, cottage cheese, ice cream	-yogurt with seeds or fruit
Bread & Cereals	-white bread, saltine crackers, refined cereals, pancakes, bagels, biscuits, white rice, enriched noodles	-whole grain breads and cereals
Fruits & Veggies	-fruit juice without pulp, apple sauce, potatoes without skins	-all veggies

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Dietary Considerations continued…

FOOD GROUP	Harden Stool	Soften Stool
Meat & Other Alternatives	-any meat, fish, or poultry	-nuts, dried beans, peas, seeds, lentils, chunky peanut butter
Soups	-any creamed or broth-based without vegetables, beans or lentils	-soups with vegetables, beans, or lentils
Fats	-none	-any
Desserts & Sweets	-any without fruit or seeds	-any made with cracked wheat, seeds, or fruit

Medication Considerations

- Stool Softeners
  - Help the stool retain fluid, stay soft & slide through the colon
  - E.g. ducosate (colace)
- Laxatives
  - Increase stool size & irritate by pulling water into the colon
  - Have to drink even more fluids with these!
  - E.g. M-O-M, senna (glysennids), bisacodyl (dulcolax)

Medication Considerations

- Bulk-Forming Agents
  - Add bulk to your stool
  - Have to drink even more fluids with these!
  - E.g. Polyethylene Glycol (PEG or Lax A Day), psyllium (Metamucil), bran flakes
- Suppositories
  - Stimulates activity in colon & lubricates rectum
  - E.g. dulcolax, glycerine, "Magic Bullet"

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Red Flags – Urgent Care Needed

- Distressed behaviour
- Abdominal pain
- Nausea &/or vomiting
- Fever
- Dark/black 'tarry' stool (containing blood)
- Rectal bleeding or pain
- When straining causes a small amount of the intestinal lining to push out from the rectal opening (rectal prolapse)

BM Monitoring Tool

BOWEL MOVEMENT - MONTHLY MONITORING RECORD
Month of _____ 20____

Name: _____ **DOB:** _____

PROTOCOL IN PLACE: ☐ NO ☐ YES
If YES, record use in Protocol box, below

Use for people who have bowel problems.
Note both **SIZE** and **TYPE** when recording B.M.'s: L = Large M = Medium SM = Small e.g., Large, Soft [L / S]
H = Hard S = Soft D = Diarrhea
OR use the Bristol Stool Chart Descriptions (see back of page) to fill in the chart.

DATE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
1st Stool																															
2nd Stool																															
3rd Stool																															
4th Stool																															
Protocol: *what used, when?*																															

Notes: _____

Adapted from New Visions Toronto

SEE OTHER SIDE →

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BM Monitoring Tool – Page 2

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	Fluffy pieces with ragged edges, a mushy stool
Type 7	Watery, no solid pieces. **Entirely Liquid**

Types 1 and 2 indicate constipation
Types 3 and 4 are the easiest to pass
Types 5 - 7 may indicate diarrhea

Reference:
Lewis SJ, Heaton KW. Stool form scale as a useful guide to intestinal transit time. Scandinavian Journal of Gastroenterology 1997;32(9):920-4.

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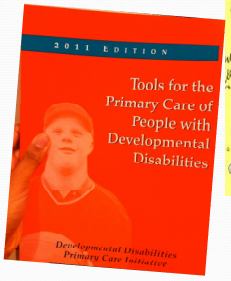
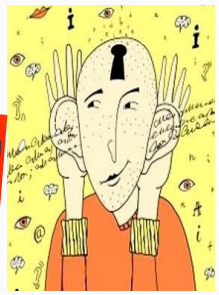
Primary Care Tools –

- A Guide to Understanding Behavioral Problems and Emotional Concerns
- Today's Visit





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A Guide To Understanding Behavioral Problems

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DIAGNOSTIC FORMULATION OF BEHAVIOURAL CONCERNS

Patient brought to family physician with escalating behavioural concerns

- Individual communicating concerns verbally? YES
- NO → Caregivers expressing concerns? YES
- NO → Should there be concerns? (Is anyone at risk?) YES
- NO → Medical condition? YES: *Treat condition*
- NO → Problem with supports/ Expectations? YES: *Adjust supports or expections*
- NO → Emotional issues? YES: *Address issues*
- NO → Psychiatric disorder? YES:

TODAY'S VISIT

Main Reason for Today's Visit to the Physician or Nurse (To be filled out by the Patient with DD and Caregiver)

- Please bring an updated form for each visit to the physician/nurse.
- Bring an updated medication list, or all medications being taken.
- Bring any monitoring forms being used (i.e., sleep or behaviour charts).
- Keep a copy of this completed form for the patient's home medical files.

Up-to-date Medication List attached? ☐

Name: _____ Gender: _____ (last, first)

Address: _____

Tel. No: _____

DOB (dd/mm/yyyy): _____

Health Card Number: _____

Date of Visit: _____

Patient / Caregiver (see back of page)

What is the main health problem the patient with DD or caregivers are concerned about?
When did it start? List any new symptoms. List possible contributing factors.

Circle or list other needs – e.g., prescription renewals, test results, forms to be filled out, appointment for annual exam

Any Recent Changes or Stressors? ☐ No ☐ Yes: _____
(e.g., staff changes, family illness or stress, changes in living or social environment)

Any recent visit to the dentist or other doctor? ☐ No ☐ Yes: _____
Any recent medication changes or additions? ☐ No ☐ Yes: _____
(include antibiotics, creams or herbal medicines)

Caregiver Needs – Write down or tell doctor or nurse whether there are issues regarding caregiver fatigue or burnout

Name/Position:	Contact #:	Signature:

MONITORING OF DAILY FUNCTIONS DURING THE PAST WEEK

	MON.	TUES.	WED.	THURS.	FRI.	SAT.	SUN.
ACTIVITY LEVEL (N, or)							
SLEEP Pattern and Hours required (daytime and night)							
EATING/ WEIGHT (N, or) Include total # of meals and # completed/day							
BOWEL ROUTINE (N, . . C)							
MOOD/ BEHAVIOUR (N, or) Describe if changed (e.g., agitated, withdrawn)							

Fill in chart using: **N = Normal** or usual for that person; **= Decrease** in amount, level or function; **= Increase** in amount, level or function
C = Constipation – a stool is passed less often than every two days or stools are hard and/or difficult or painful to pass, even if the person has stools many times per week.

When Bowel Routine 'Isn't Working' - Rita

- Staff received an in-service about bowel health and set up a bowel routine for Rita
- Staff encouraged sources of fiber and fluid, exercise and other interventions to try to improve her bowel health
- BM monitoring chart indicated minimal improvement

When Bowel Routine 'Isn't Working'

- Staff returned to family physician with documentation to support that despite dietary changes, bowel routine, exercise and meds, Rita's bowel health seemed to improve only minimally
- FP was convinced that the problem was important enough to refer Rita to a GI specialist
- GI specialist's assessment/tests indicated that Rita has "mega colon"
- Surgery was not recommended but an enema was administered and Rita was "a whole new person"
- Rita needs a bowel routine including enemas

When Early Symptoms Were Missed - Devon

Diagnoses:

- 18 year-old with severe to profound DD (IQ below 25)
- Autism Spectrum Disorder
- Severe pica (e.g. vinyl gloves, paper, small specks of debris on the floor)
- Seizure disorder
- Responsive/distress behaviours (e.g. aggression)

When Early Symptoms Were Missed - Devon

Issues:

- Parents living with daily episodes of aggression & retreating to living in their garage
- Multiple ER visits after ingesting gloves
- 8th ER visit, gloves suctioned from stomach and bowel resection to remove bezoar
- Post-op complications
- Second surgery, currently still hospitalized
- Your role?
- Who else should be involved?

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Your Examples &/or Questions?

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Summary

- Bowel health & complications knowledge
- Definition of constipation
- Factors that are associated with constipation
- Red flags! When to seek urgent care
- What are other things we can do to promote bowel health & try to avoid complications
- Bowel routine & tools

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Thank You!

Contact Information:

Bev Vaillancourt (Central East region)
Email: bvaillancourt@clhmidland.on.ca

Angie Gonzales (Toronto region)
Email: angela.gonzales@surreyplace.on.ca

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