The Scoop on Poop

Tips for Bowel Health

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Outline

• Digestion 101
• Gut Health and Immunity
• GI Disease
• Tips for Bowel Health
• Questions
Digestion 101

- **Digestion**: The process of breaking down food for energy.
  - From Mouth to Stomach
    - The site and smell of food increase saliva
    - The role of chewing
    - Careful swallowing
    - Know your hunger and satiety cues
Digestion 101

- **Digestion**: The process of breaking down food for energy.
  - From Stomach and Beyond
  - Small Intestine: Absorbs Vitamins and Energy
  - Large Intestine: Absorbs Vitamins and Fluids
Digestion 101

- **Other Key Players:**
  - Pancreas: Creates and secretes enzymes to breakdown food and energy.
  - Liver: Creates bile to help absorb and use fat as an energy source.
  - Gall Bladder: Works with the liver to secrete bile via “ducts”
Gut Health and Immunity

• Why protect our gut?
  – Our intestinal flora informs and influences the immune system.
  – The gut lining affects the communication between the digestive tract and immune system.
Why protect our gut?
- Our gut flora is like the gatekeeper.
- When the gut flora becomes disrupted, through antibiotic use, pathogenic (bad) bacteria have the opportunity to settle.
Most Common GI Diseases:
- Constipation
- Diarrhea
- IBS
- IBD
- Diverticulitis & Diverticulosis
- Celiac Disease vs Gluten Sensitivity
• Occurs when stools are difficult to pass and result in 2 or fewer BM each week.
  – Related- but not defined by- frequency.
• What is normal for you?
Lifestyle Influences that Increase Constipation:
  – Lack of fiber
  – Dehydration
  – Inactivity
  – Overuse of laxatives
  – Poor muscle tone
Diarrhea

• Defined as 3+ loose, watery stools within 24 hours.

• Secretory versus Osmotic
  – **Secretory**: Caused by an infectious agent or poorly absorbed nutrient causing fluid to be drawn into the intestine.
  – **Osmotic**: Dysfunction in intestine to absorb excess fluid
• Common causes:
  – Food intolerance (Lactose, Wheat, Gluten)
  – Infection (bacteria, virus, parasite)
  – Anxiety
  – Presence of other disease (IBD, IBS)
Chronic condition resulting in constipation and/or diarrhea.
  – May also cause belly pain, cramping or bloating.

Lifestyle influences:
  – Low fiber or High fat diet
  – Inactivity
  – Stress
Inflammation of all or part of the digestive tract:

- **Ulcerative Colitis:** IBS that causes chronic inflammation and sores (ulcers) in the large intestine and rectum.

- **Crohn’s Disease:** Inflammation along the entire digestive tract deep into the tissues.

Causes is not fully understood, thought to be genetic.
Diverticulosis

• When pouches (diverticula) form in the wall of the large intestine (colon).

• Diverticulitis is when one of these pouches becomes infected or inflamed, resulting in pain.

• Lifestyle Influences:
  – Low Fiber Diet
  – Stress
  – Hydration
  – Inactivity
Celiac Disease

• An autoimmune disorder when gluten leads to damage in the small intestine.
• Gluten is found in wheat, barley, rye and oats.
• Ingestion of gluten leads to:
  – Bloating, Belly pain, Cramping, Diarrhea
  – Rashes
  – Confusion, Fatigue
Gluten Intolerance

- Diagnosed when a person exhibits the symptoms of celiac disease without meeting diagnostic criteria:
  - No autoimmune response.
  - Negative biomarkers.
  - No apparent damage to intestines.
The Scoop on Poop

BRISTOL STOOL CHART

TYPE 1
TYPE 2
TYPE 3
TYPE 4
TYPE 5
TYPE 6
TYPE 7
## The Scoop on Poop

**BRISTOL STOOL CHART**

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Separate hard lumps</td>
<td>Very constipated</td>
</tr>
<tr>
<td>2</td>
<td>Lumpy and sausage like</td>
<td>Slightly constipated</td>
</tr>
<tr>
<td>3</td>
<td>A sausage shape with cracks in the surface</td>
<td>Normal</td>
</tr>
<tr>
<td>4</td>
<td>Like a smooth, soft sausage or snake</td>
<td>Normal</td>
</tr>
<tr>
<td>5</td>
<td>Soft blobs with clear-cut edges</td>
<td>Lacking fibre</td>
</tr>
<tr>
<td>6</td>
<td>Mushy consistency with ragged edges</td>
<td>Inflammation</td>
</tr>
<tr>
<td>7</td>
<td>Liquid consistency with no solid pieces</td>
<td>Inflammation</td>
</tr>
</tbody>
</table>
• **Insoluble Fiber:** Does not dissolve in water and aids digestion
  – Sources: Wheat bran, whole grains, fruits and vegetables.

• **Soluble Fiber:** Dissolves in water, to form a kind of gel. Can help to lower blood sugar and cholesterol
  – Sources: oats and oat bran, legumes, and some fruits and vegetables.
## Dietary Fiber in Common Foods

*Fiber content may vary as manufacturers change products*

<table>
<thead>
<tr>
<th>Food Item</th>
<th>Serving Size</th>
<th>Fiber Content (grams)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Excellent Sources: 7 or more grams per serving</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kidney beans, cooked</td>
<td>½ cup</td>
<td>9 g</td>
</tr>
<tr>
<td>Bran Flakes, cereal</td>
<td>1 cup</td>
<td>8 g</td>
</tr>
<tr>
<td>Raisin Bran, cereal</td>
<td>1 cup</td>
<td>7 g</td>
</tr>
<tr>
<td><strong>Very Good Sources: 5 - 6 grams per serving</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baked beans</td>
<td>½ cup</td>
<td>6 g</td>
</tr>
<tr>
<td>Whole wheat pasta</td>
<td>1 cup</td>
<td>6 g</td>
</tr>
<tr>
<td>Almonds</td>
<td>¼ cup</td>
<td>5 g</td>
</tr>
<tr>
<td>Corn, on the cob</td>
<td>1 ear (medium)</td>
<td>5 g</td>
</tr>
<tr>
<td>Oat bran, cooked</td>
<td>1/3 cup (1 oz)</td>
<td>5 g</td>
</tr>
<tr>
<td><strong>Good Sources: 1 - 4 grams per serving</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Banana</td>
<td>1 medium</td>
<td>4 g</td>
</tr>
<tr>
<td>Prunes</td>
<td>3 medium</td>
<td>4 g</td>
</tr>
<tr>
<td>Oatmeal, cooked</td>
<td>1 cup</td>
<td>4 g</td>
</tr>
<tr>
<td>Apple, with skin</td>
<td>1 medium</td>
<td>3 g</td>
</tr>
<tr>
<td>Carrot, raw</td>
<td>1 medium</td>
<td>3 g</td>
</tr>
<tr>
<td>Peas, cooked</td>
<td>½ cup</td>
<td>3 g</td>
</tr>
<tr>
<td>Bread, whole or cracked wheat</td>
<td>1 slice</td>
<td>2 g</td>
</tr>
<tr>
<td>Popcorn, popped</td>
<td>1 cup</td>
<td>2 g</td>
</tr>
<tr>
<td>Green beans, cooked</td>
<td>½ cup</td>
<td>1 g</td>
</tr>
</tbody>
</table>
Prebiotics

• A fermentable food that leads to changes in the gut microflora (bacteria) leading to health benefits.

• **Food Sources:**
  – Chicory Root
  – Jerusalem Artichoke
  – Dandelion Greens
  – Garlic
  – Leeks
  – Onion
  – Wheat Bran
  – Whole wheat Flour
Probiotics

• Live and active bacteria and yeasts that reside in the digestive tract.
• Feed off of prebiotics.
• 2 Common Types:
  – **Lactobacillus**. Most common. Specific strain that may help with diarrhea and lactose intolerance.
  – **Bifidobacterium**. May help ease the symptoms of irritable bowel syndrome (IBS).
Probiotics

**Good and Bad Bacterial Flora**

**BIFIDOBACTERIA**
The various strains help to regulate levels of other bacteria in the gut, modulate immune responses to invading pathogens, prevent tumour formation and produce vitamins.

**ESCHERICHIA COLI**
Several types inhabit the human gut. They are involved in the production of vitamin K2 (essential for blood clotting) and help to keep bad bacteria in check. But some strains can lead to illness.

**LACTOBACILLI**
Beneficial varieties produce vitamins and nutrients, boost immunity and protect against carcinogens.

**CAMPYLOBACTER**
C Jeuni and C coli are the strains most commonly associated with human disease. Infection usually occurs through the ingestion of contaminated food.

**ENTEROCoccus FAEcALIS**
A common cause of post-surgical infections.

**CLOSTRIDIUM difficile**
Most harmful following a course of antibiotics when it is able to proliferate.
Probiotics

Food Sources:

- Yogurt (99% Lactose free)
- Kefir (99% Lactose free)
- Soft Cheeses, like Gouda
- Miso Soup
- Sauerkraut
- Sour Pickles
- Sourdough bread
- Tempeh
Probiotics

- Supplements...
• Dehydration is dangerous

• How much water do we need daily?
  – Easy equation: Divide your weight (lbs.) by 2
  – This is your water goal in ounces
  – Example: 200lbs / 2 = 100 ounces per day
  – 100 ounces = 12.5 Cups of Fluid daily
• **Tips to meet your fluid needs…**
  – Enjoy 1 cup of water at each meal and snack.
  – Aim for 1-2 cups of water between each meal.
  – Monitor symptoms of hydration.
  – Eat your water:
    • Lettuce, especially Iceberg
    • Cucumber, Celery and Tomatoes
    • Melon, Berries and Citrus Fruits
QUESTIONS?
Come See Us!

UW Health Nutrition Clinics

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  – East, West and Research Park Clinics

• Call (608) 287 – 2770
  – All Other UW Health Clinics