This program is sponsored by the International Foundation for Gastrointestinal Disorders. The views and opinions expressed in this presentation do not necessarily reflect the official position of IFFGD. Information and resources shared should not replace any medical care you are receiving. Finally, it is important to always consult with your doctor or other health care provider before making decisions about your treatment.

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.

Gut Matters 102: How the gut works in relation to food, nutrition basics

Amanda Lynett, RDN
Overview

• Gain a better understanding of nutrition basics
• Macronutrients
• Micronutrients
• Recognize the relationship between different nutrients and GI symptoms

What is Nutrition?

• Nourishment
• How foods affects the body
• Process of taking food and using it for growth, metabolism and repair
Macronutrients

• Protein
• Carbohydrates
• Fat

Macronutrients: Protein

• Amino acids (essential amino acids)
• Growth and maintenance
• Repair
• Enzymes
Macronutrients: Protein

Macronutrients: Fats

- Provides structure and protection
- Energy reserve
- Aid in absorption of fat-soluble vitamins
Macronutrients: Fats

Macronutrients: Carbohydrates

- Provides energy & fuel
- Sugars
- Starch
- Dietary Fiber
### Macronutrients: Carbohydrates

![Carbohydrates Image]

### A Little more on Fiber....

<table>
<thead>
<tr>
<th>Type of Fiber</th>
<th>Food Examples</th>
<th>Functions in Digestive health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insoluble, poorly fermented, nonviscous fibers</td>
<td>Wheat bran, whole grains, nuts, flax</td>
<td>Increases stool mass, increased water secretion and peristalsis</td>
</tr>
<tr>
<td>Soluble, fermentable, nonviscous fibers</td>
<td>Chicory root, onion, Jerusalem artichokes, cooked and cooled potatoes and pasta</td>
<td>Increases stool bulk through increased biomass and fermentation by-products; metabolized by gut microbiota producing SCFA</td>
</tr>
<tr>
<td>Soluble, fermentable, viscous fibers</td>
<td>Berries, bananas, oats</td>
<td>Slow transit time, gel-forming, help normalize stool consistency</td>
</tr>
<tr>
<td>Soluble, poorly fermented viscous fiber</td>
<td>psyllium</td>
<td>Forms stool into a gel and remains viscous throughout the large intestine because it resists fermentation</td>
</tr>
</tbody>
</table>

Issokson, Kelly. DMNT Vol 39-3
Micronutrients: Vitamins

- Fat soluble and water soluble
- Aid in many functions:
  - Energy production
  - Build proteins, bones and cells
  - Make collagen
  - Immunity, eye and skin health
- Cooking and storage can decrease nutrient value

Micronutrients: Minerals

- Regulation of water within the body
- Help with skeletal structure and cardiovascular health
So why is knowing the basics on nutrients important??

Nutrition Basics in Relation to GI Conditions

• Gastroparesis – Fiber (carbohydrate), Fat
• IBS - Short-chain carbohydrates
• Exocrine Pancreatic Insufficiency – Fat Soluble Vitamins
Thank you!