Take a Trip Through The Tummy

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Affiliation or Financial Disclosure

• Karen Olsen
  • Nothing to Disclose
Welcome!

• Follow a school lunch through the hidden and amazing world of the human digestive tract. Discover why fiber and fluid are important, how a high-fat diet can bog down the system and what happens to protein and sugar.

Today we will review

• key locations in the human digestive system
• fiber, sugars, complex carbs, fat, protein and sodium in the digestive system
• some fun facts or trivia
Basic Building Blocks of Food

- Protein
- Carbohydrate
  - Simple carbohydrates (natural and added)
  - Complex carbohydrates
  - Insoluble Fiber
  - Soluble Fiber
- Fat
Reimbursable Lunch

- Tacos
  - Shell
  - Rice
  - Taco meat
  - Cheese
- Beans
- Salsa
- Lettuce / Tomato
- Grapes
- Juice
- Milk
Reimbursable Lunch

- Tacos
  - Shell
  - Rice
  - Taco meat
  - Cheese
- Beans
- Salsa
- Lettuce / Tomato
- Grapes
- Juice
- Milk
Reimbursable Lunch

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Carbohydrate

Protein
- Milk
- Salt

Fat
- Added sugar
- Simple carb

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Two Basic Digestive Actions

- **Mechanical** -
  - such as chewing or kneading

- **Chemical** -
  - acid, emulsifiers, bacteria, etc
Protein

Fat

Carbohydrate

Simpler Compounds

Glycogen
(short term energy storage)

Energy for Movement (Glucose)

Energy for Building (Glucose)

Construction Materials (Proteins etc)

Body Fat (storage)

Ketones
Did you realize …?

- The digestive tract is 25 feet long
- Total “transit time” averages 24 hours
- Bacteria contribute to digestion
- The digestive system includes other organs
- Even though digestion occurs “inside” your body, the intestines are not sterile
Step One

• – begins with aroma and sight
  • Complex carb
  • Simple carb
  • Added sugar

• Tongue
• Mouth
• Esophagus
• Epiglottis
Protein

- Carb
- Fat
- Stomach

• Sphincter
Small intestine

- Carbohydrate
  - Complex carb
  - Simple carb

- Protein

- Fat

- Liver
- Gallbladder
- Duodenum
- Pancreas
- Jejunum
- Ileum
Large Intestine

- Cecum or sigmoid colon
  - Soluble Fiber
  - Insoluble Fiber

Ascending

Transverse

Descending
Waste Products
Questions?
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• **Key Topic:** Take a Trip Through the Tummy - 1300
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