Oct 16, 2019

- 1) Wellness links to Digestion
- 2) Bacteria in Digestion

Test moved to Monday!!

Warm-Up

The entire gastrointestinal tract, including the small intestine, normally contains bacteria. The number of bacteria is greatest in the colon (usually at least 1,000,000,000 bacteria per milliliter of fluid) and much lower in the small intestine (less than per ml of fluid).

Wellness factors that effect digestion

- Sleep and Physical Activity
- Stress
- Nutrition/Healthy Eating
- Infections/Disease

Lack of Sleep

Missing sleep has many negative effects on the digestive system including weight gain and cravings.

There are two hormones (leptin and ghrelin) that regulate metabolism, appetite and energy expenditure. If these hormones are not in the correct quantities in your body you will feel hungry more often and the calories you take in will be stored as fat rather than used for energy.

You tend to crave sweet, salty and carbohydrate rich foods when you are lacking sleep. These will also cause you to pack on extra calories.

Physical Activity and Digestion

- When you get your heart pumping it increases blood flow and circulation of oxygen. Blood is carrying the nutrients throughout your body and the muscles and organs of the digestive system need oxygen to work properly.
- It also works the muscles of the digestive system and can help keep you regular.

Stress

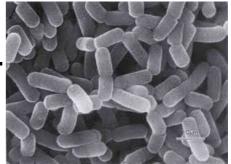
Causes you not to be able to digest food well and can lead to cramping, bloating inflammation, and a loss of appetite. The brain and your digestive system are connected by neurons and when the flight or fight response is initiated cortisol is released. This can cause your esophagus to spasm, the acid in your stomach to increase etc.

Nutrition/Healthy Eating

What you put in your body is your fuel so its obvious that the healthier the foods you eat the better it is for all body systems including and especially the digestive system.

Bacteria in the Digestive System

There are many types of good bacteria that can be found in the digestive system. The majority of them occur in the large and small intestine.



i.e. <u>Lactobacillus</u>, E.coli, Clostridium



Why do they not get digested with all that is going on?

- they <u>appear</u> to the body as cells of the digestive system and therefore do not get <u>attacked</u> by your immune system like other bad bacteria do.

Benefits

- Produce <u>enzymes</u> that breakdown plant cell walls in certain foods we eat not all
 - Make vitamin K and other B vitamins
 - Help digest and absorb food



How antibiotics affect the digestive system

When taking <u>antibiotics</u> not only do they kill the bad <u>bacteria</u> that are causing you to become sick they also kill the good bacteria that are in your <u>digestive</u> system. Therefore it is important when taking <u>antibiotics</u> to eat foods that will re-introduce bacteria into your digestive system

i.e. yogurt, keifer, fermented foods.

EXPERIENCE LIFE



Hankering for some probiotics? Check out these 11 fermented foods.



1. Yogurt: A fermented milk product that can also be made from nondairy milks like almond, coconut, and soy. If you don't make your own, look for yogurt with live, active cultures.



2. Tempeh: Made from whole, fermented soybeans, tempeh has a nutty, smoky, mushroomlike flavor and is best eaten cooked. Because of its firm, chewy texture, tempeh is often used as a meat substitute. (For more, see ELmag.com/tempeh.)



3. Kombucha: A lightly effervescent drink made from sweetened tea that's been fermented with a symbiotic culture of bacteria and yeast (SCOBY). If you make it at home, vary the flavor by adding juices, fruit, or even chia seeds.



4. **Miso:** A savory, complex soybean, rice, or barley paste fermented with a mold called *koji*. It is a good salt alternative in soups, sauces, spreads, salad dressings, and marinades.



5. Fish sauce, tamari, and shrimp paste: Found in Asian markets, these fermented products are great additions to salad dressings, marinades, and stir-fries.



6. Sauerkraut: Made by fermenting finely chopped cabbage, sauerkraut is simple to make. If you want to purchase it, look for a good-quality one sold in the refrigerated section of the grocery store.



7. Kimchi: Made of fermented cabbage or radishes, this spicy Korean condiment can be served alone, with rice or noodles, in soups, or even as a creative topper for burgers.



8. Pickles: Make your own or look for fermented pickles, which are in the refrigerated section. The pickles found in grocery aisles are made using heat and vinegar, both of which kill good bacteria.



9. Kefir: Fermented milk made with a yeast and bacterial fermentation starter called "grains," kefir is a thick-yet-pourable drink that's wonderful served on its own or with nuts and fruit.



10. Sourdough: Sourdough bread contains the bacteria lactobacilli that ferment the dough, give the bread its tangy flavor — and make it easier to digest than traditional yeast breads. Easy to make if you keep a starter on hand.



11. Vinegar: Made by fermenting wine, cider, or beer, vinegar can be splashed on many savory dishes for added tang and a nutrient boost. And after your meal, you can mix some with a little baking soda to clean the kitchen.