

CHAP Weekly Update

September 18, 2020

Gut Microbiomes and Health

Like COVID-19, our understanding of gut microbiomes is frequently changing. We have billions of microbes living in us and on us. Most are symbiotic; both the microbes and the human receive a benefit. Some are pathogens; these microbes cause human disease.

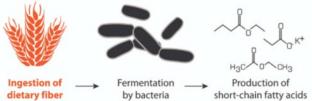
The skin protects us from many pathogens. The gut protects us from pathogens we eat. Friendly symbiotic microbes in the gut directly support the immune system and produce vitamins. But they do so much more.

DEFINITIONS:

- ❖ MICROBIOTA The microbes living in us and on us. Most are bacteria
- ❖ MICROBIOME The genes of the microbiota

The Large Intestine (Colon)

Undigested fiber from plants travels down to the large intestine. Bacteria living in the large intestine eat and ferment the fiber. This produces short chain fatty acids – or SCFAs.



COVID-19 By The Numbers



Alaska total cases: 7,308 US total cases: 6.7 M

World total cases: 29.8 Million

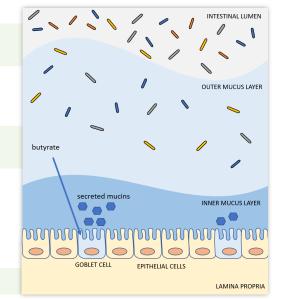
6.7 Million 199,000 Deaths 29.8 Million 939.000 Deaths

The Role of SCFAs

SCFAs provide fuel for large intestine cells, used to make mucin which lines the inside of the large intestine. The mucin protects the lining of the large intestine from all bacteria.

The left over SCFAs are transported all over the body where they:

- Provide fuel for other cells
- Help with regulating the immune system
- Decrease inflammation
- Help control appetite and promote weight loss
- Play a role in cholesterol and glucose use in the body and decrease insulin resistance
- Protect against cancer
- Have an effect on memory and brain function



Thanks to Teresa Hicks and Luz Smeenk for their presentation about Gut Health. To inquire further, contact:

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Important Gut Microbiome Facts

The microbiome is many kinds of bacteria, each specializing in a particular SCFA. The three main types of SCFAs each have a unique role in health.

- Everyone has a different set of microbes unique to them.
- More bacteria and more variety is better.
- People with fewer bacteria and less diversity of bacteria in their large intestine tend to have more fat tissue and are more likely to have type 2 diabetes and more inflammatory diseases.

Tips to Encourage Good Bacteria in the Gut

- ❖ Eat more fiber 20-25 grams/day
 - Fiber is in plants. There is no fiber in meat, dairy, or sugar.
- Plants need to be whole and unprocessed.
 - Eat fresh vegetables and greens.
 - > Wash fresh fruit bought at store right before eating.
 - Eat Frozen vegetables, frozen fruit.
 - Eat whole grains, like whole wheat, barley, oatmeal

Save the Date

Next session: September 22 at noon. Dr. Rosalyn Singleton and Gina Carpenter, PHN from Dillingham, will talk about the upcoming Flu session and Flu Immunization. *Keeping our Communities Safe*.

Bring your ideas for increasing flu immunization rates during this difficult time.

More ways to Support the Gut Microbiome

PREBIOTICS

These provide fermentable fiber. Prebiotics are found in products such as Metamucil. These are used in care of patients, but it's better to eat whole food.

Examples: insulin and oligosaccharides

PROBIOTICS

These encourage growth of healthy bacteria. Eat a little bit everyday. They may be helpful in prevention of URIs and UTIs. Probiotics do not provide the benefits of a resident population of bacteria. it's better to eat fiber.



Examples: kombucha, sauerkraut, other fermented foods

Recipe

To make a cabbage ferment or a picante ferment, see Making Ferments, Online: *COVID-19 Resources; Gut Health and the Microbiome* course.

Resources

Foods We Alaskans Enjoy - new version, email lmsmeenk@anthc.org
The Art of Fermentation by Sandor Ellix Katx, https://culturesforhealth.com



EXERCISE

Däte

Regular exercise, preferably outside, encourages a healthy gut microbiome.

ANTIBIOTICS

These frequently kill gut microbes along with the pathogens. Use antibiotics only when needed. Do not use antibacterial soaps or cleaners at home. Do use them in the clinic as directed by your region.

