



"The road to health is paved with good intestines!"  
~ Sherry A Rogers, author

# CHAP Weekly Update

September 18, 2020

## Gut Microbiomes and Health

Like COVID-19, our understanding of gut microbiomes is frequently changing. We have trillions 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 (SCFAs).



### COVID-19 By The Numbers

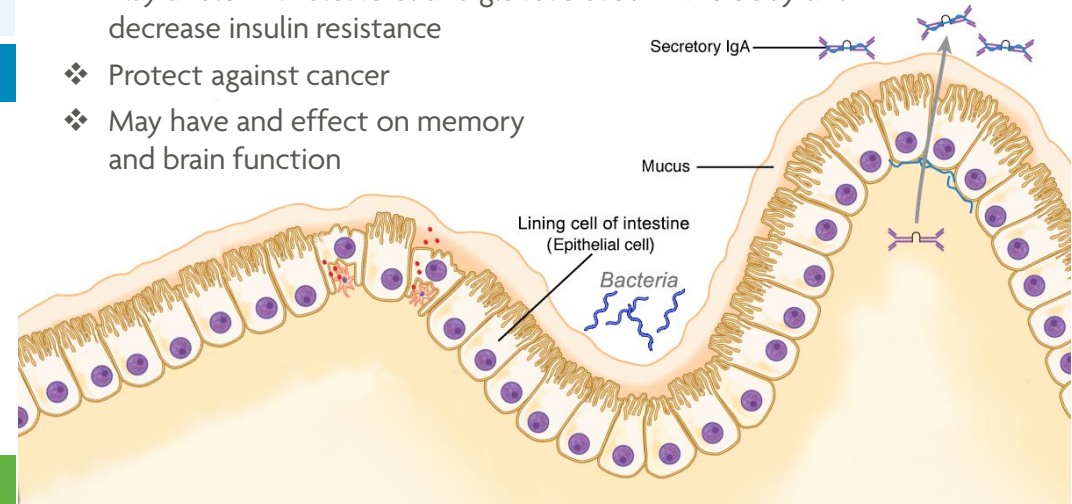
Alaska total cases:	7,308
US total cases:	6.7 Million 199,000 Deaths
World total cases:	29.8 Million 939,000 Deaths

### The Role of SCFAs

SCFAs provide fuel for the large intestine cells, which make mucin that 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 used in the body and decrease insulin resistance
- ❖ Protect against cancer
- ❖ May 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:

Teresa Hicks, at [tahicks@anthc.org](mailto:tahicks@anthc.org)

Luz Smeenk, at [lmsmeenk@anthc.org](mailto:lmsmeenk@anthc.org)



Let us know what you think! [aka-CHAPCOVID-19weeklyupdates@anthc.org](mailto:aka-CHAPCOVID-19weeklyupdates@anthc.org)  
Send questions for presenters and each other, and suggest topics for discussion.





“Eat food made from plants, not food made in a plant.”  
~ Author unknown

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## Important Gut Microbiome Facts

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

- ❖ Everyone has a unique set of microbes unique to them.
- ❖ More bacteria and a variety of bacteria 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: 25-30 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.

Let us know what you think! [aka-CHAPCOVID-19weeklyupdates@anthc.org](mailto:aka-CHAPCOVID-19weeklyupdates@anthc.org)  
Send questions for presenters and each other, and suggest topics for discussion.

## More ways to Support the Gut Microbiome

### PREBIOTICS

Foods with fiber that bacteria can ferment. Bacteria can ferment most fibers. You can buy prebiotic supplements like inulin and oligosaccharides, but these same prebiotics are found naturally in foods too. Some supplements have fibers that are harder for bacteria to ferment such as Metamucil or some fiber rich granola bars. These have a place in care of patients, but it is important to eat whole foods to feed bacteria.

### PROBIOTICS

Foods like kombucha, sauerkraut, other fermented foods. Eat a little bit everyday. Probiotics are just visiting the large intestine, they do not remain in the colon and become residents. However, they still provide benefits to the immune system and health while they pass through. May be helpful in prevention of URIs and UTIs. Do not provide the benefits of a resident population of bacteria. Better to eat fiber.

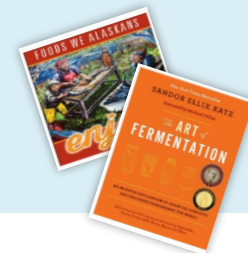


### Recipe

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](mailto:lmsmeenk@anthc.org)  
*The Art of Fermentation* by Sandor Ellix Katx, <https://culturesforhealth.com>



### EXERCISE

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

### ANTIBIOTICS

The pathogens encountered in clinic make using antibacterial or antiviral cleaners necessary. In the home there is no need to use antibacterial soaps or cleaners and use of them will contribute to antibiotic resistance.



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TRIBAL HEALTH  
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