Digestive System and Gut Repair Dr. John G. Schoenenberger

- Digestive system surface area is approximately 200 sq. meters about the size of tennis court. It is 200 times greater than skin.
- The digestive system is not only a sewer pipe but a dynamic physiological organ.
- What causes chronic inflammation: genetics susceptibility such as toxins or hormonal imbalances?
- *** Poor diet high arachadonic intake, malfunctioning break on the immune system, and a deficiency in Vitamin D.
- *** Research shows that approximately 60-80 percent of your immune system is found in your GI tracks (MALT/GLAT)

Mechanism that inflames the stomach

- Transmigration of antigens across the GI barrier may trigger systemic immune response which means when you have a stomach that does not work correctly or leaky gut syndrome, antigens get in the stomach. Antibodies across the barrier and begin to attack the toxins creating an immune response.
- To put this up where the 60-80 percent of the immune system was the colonic mucosa contains a population of leukocytes, T&B lymphocytes, plasma cells, and histiocytes along with mass cells.
- This triggers and inflammatory response. The problem is the entire system becomes inflamed. These antibodies do no locate just themselves in the digestive system but will begin to attack other areas. In a joint situation they cannot differentiate between antigens and the joint so they begin to destroy the joint in rheumatoid arthritis which is an auto immune disease.
- Diet is important because carbohydrates and sugars lead to arachadonic acid and pro inflammatory responses. Some of these inflammatory responses with the digestive systems are considered with crone's disease and colitis and other inflammatory conditions.

Nutrition: To ensure that the digestive system works properly.

- **Glutamine** is utilized to fill the holes within the leaky gut. It is the number one amino acids in the muscles and also heals the intestinal system.
- After you heal the stomach pro-biotic (bacteria) need to be repopulated back into the stomach so it can digest food.
- The importance to bacterial balance. Greater than 100 billion bacteria in the gut or $2\frac{1}{2}$ to 3 pounds of bacteria per person.
- Yogurt contains approximately 1-2 million that is why yogurt alone can not repopulate the stomach although it is a good dietary supplement.
- A pro-biotic contains billions of multiple bacteria's that will repopulate the stomach that is why it is so important to take them.
- Things that will increase a leaky gut: NSAID, intestinal infections, over use of antibiotics, ingestion of allergenic foods, alcohol, a low-fiber diet.
- Other supplements that help in the healing of the digestive system: glutamine, amino acids.

- GI barrier nutrients send balancing messages, antioxidants help protect healthy tissue, ginger, rosemary, turmeric will decrease the inflammatory response and a multivitamin and multimineral will aid in tissue health.
- Conditions that associate with an imbalance of intestinal bacteria, allergies, chronic fatigue/fibromyalgia, headaches, joint pain, immune dysfunction, irritable bowl syndrome, alterative collides, and nutritional deficiencies.
- Anyone who has an inflammatory response has to not only have the joints worked on but has to make sure the digestive system is working properly to decrease the inflammation.
- Ulcers- zinc carnosine heals the ulcer.

Probiotics

- Non-digestible food fiber that helps stimulates development of activity of beneficial bacteria.
- For example, artichokes, leaks, onions, bananas, carrots, pears, and shitake mushroom
- Other recommendations are to chew your food thoroughly to help digestion.
- Eat in a relaxed atmosphere at a relaxed place.
- Get plenty of fiber in your diet.
- Avoid antibiotics use unless absolutely necessary.
- Eat a predominantly vegetable/protein root based diet.
- Drink un-chlorinated water and probiotics.
- Food such as yogurt that have live cultures in it.

Prilosec and other drugs used for stomach/ Acid Reflux Conditions:

- Shuts down HCL production.
- The reason for the acid reflux or stomach condition is that there isn't enough HCL to digest the food in the first place. When it takes too long to digest it produces hydrochloric acid gas which irritates the esophagus. If you take away the HCL the condition is going to worsen.
- The food then does not get digested and travels through your intestinal system as rotting food. This inflames the entire body not just the stomach and leads to a multitude conditions.
- Stomach pH is normally 2.15 to protect us from bad bugs
- Test for Dysbiosis
- Esophagus pH should be neutral- 7 if it changes acid reflux or irritation will occur.

Take the Glutamine 3x/ day for 1 week then 2x day for 2-3 weeks then 1x day for a month. Wait a week and start with the Probiotic 3x/ day for 1 week 2x day for 3 weeks then at least once a day for a month. Everyone is different so you have to see how you react to know if you need more or less.