

The Digestive System From a Microbial Perspective

Good morning!

For the last 40 years I've led a charmed life: I've participated in a farm becoming an "organism" and then an "ecosystem" while teaching me the dynamics of bio-Logical fruits and vegetables.

Since the Federal Government seized control of the "O" word, I've been reclusive-pondering the future of THE KNOLL FARM while gaining insights into the microbial world of food. In 2008 I met and began studying under the guidance of Professor Morning Wolf, Dr. of Raphalogy¹ Medicine and renown plant whisperer. Together we have formed a close bond while I've learned the real value of well-grown, bio-Logical enzyme rich food. So I'm here today to share my discoveries with you all.

Humans are intimately connected to the plant-soil interface through our digestive system; where all "health" originates as well as where all "disease" begins. Over millions of years, heirloom (Land Trace) plants have co-evolved a perfect symbiotic relationship with the soil biome to attain their full potential (perfect health). The plant world gives freely of their life force to us through our digestion.

We humans are now recognized as a "Super Organism"; composed of 10% our own DNA and 90% microbial DNA. That's 77 trillion cells of us and 77 trillion x10 of them.

However, nature is full of irony, since we possess the DNA equivalent of a round worm, we are merely a "host" (habitat) for the 90%. **OUR HABITAT QUALITY DETERMINES OUR POTENTIAL TO INTERACT WITH THE PLANT LIFE FORCE.** (the soil ecosystem). An important note: microbial communities are always composed of potential beneficials as well as +/- microbes (as I call them) in a healthy competition for habitat colonization.

Let me briefly highlight only a fraction of what this interface offers:

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| *cellulase | *all essential minerals |
| *vitamin C's | *L-Lysine |
| *vitamin B's | *choline |
| *all essential fatty acids | *inositol |
| *all essential amino acids | *and many more |

¹ Repairing damage and restoring function to weakened bodily systems using medicinal herbs and Peak Frequency Foods.

In addition, there exists plant/herb/food types that repair damage and/or restore function to all bodily systems. So let's go through a digestive cycle from a microbial perspective. I'll do this using 2 examples:

- 1) A balanced meal composed of +/- 80% raw, well-grown, bio-Logical food
- 2) The Modern American Diet (M.A.D.). I'm going to go through this rapidly highlighting only the main functions.

Digestion begins with your eyes and olfactory senses. As you prepare a meal seeing multiple colors, textures, and smells, saliva starts to flow in your mouth.

Remember, each component of well-grown bio-Logical food contains all the elements necessary for "Clean" digestion.² The saliva you swallow informs the enzyme stomach as to the composition of the meal.

The solution (habitat) you create by thoroughly chewing your food is also surveyed by the microbial population. This survey results in specialized forms to create the maximum nutrient production and absorption. The excess from this process is always stored in appropriate organs.

The many functions of saliva include beginning carbohydrate digestion; signaling ahead to stomach, pancreas, gall bladder (Liver), and small intestine with information as to the composition of the meal; adding specialized enzymes that keep the +/- characters in check. This slight immune response is controlled by the tonsils which protect the mouth, esophagus and stomach.

Swallowing allows the solution to pass through the cardiac valve into the upper stomach - the enzyme stomach (fundus). Once in the Fundus, all available enzymes are released and the microbes continue to colonize and specialize.

NOTE: THE STOMACH IS A TRUE MIRACLE COMPOSED OF TWO DISTINCT PARTS WITH ONLY A MICROBIAL BARRIER.

With an addition of pancreatic enzymes, the microbial population explodes in number and types. This specialization is aimed at providing whatever and wherever your body needs nutrition. When the enzyme stomach has completed its purpose, the solution is released to the pylorus. The walls of the pylorus emit the perfect amount of HCL for this mixture and the pancreas adds the perfect amount of enzymes to begin protein and fat digestion.

² "Clean" digestive solution would be one rich in enzymes and probiotics with little contamination by food additives, pharmaceuticals, harmful microbes, organisms, etc.

Note: When the HCL has reacted sufficiently, the pancreas releases alkalizing enzymes to **STOP** digestion before sensitive enzymes and proteins are over hydrolyzed and their function destroyed. The mixture (habitat) at this point is ready to pass through the pyloric valve to the small intestine where 80% of nutrient absorption occurs.

In the small intestine, the microbial community reaches its full potential and reduces the food particles to sizes which can pass through the intestinal walls and be picked up by red blood cells.

NOTE: Since this solution is “clean,” very little toxicity exists so many nutrients can go directly where needed without filtering and detoxifying by the liver. Also, only small amounts of bile from gall bladder and enzymes from pancreas are needed so these organs, including the liver are in idle mode while the explosion of probiotics perform their symbiosis.

NOTE: This meal has just satisfied every need of the entire body from brain to toe.

The final phase is the colon. When the pressure from the chyme is sufficient, the ileocecal valve opens and allows the solution into the ascending colon. As the valve opens, the appendix gets a message that this meal was perfect and very little white blood cells are needed to check the +/- microbes.

In the ascending colon, a yeast (candida) removes excess water and salvages organic sodium, while the probiotics begin salvaging all available enzyme systems, minerals, and fatty acids that were overlooked in the small intestine. This recycling greatly increases your life force through enzyme storage.

The walls of the colon start producing mucous to bind the fiber, to create feces ready for evacuation. In addition, the mucous protects the walls from the increased acidic nature of the solution with the concentration of the +/- microbes prior to evacuation.

The finished “bowel movement” is teaming with the micro biome that should be returned to the soil interface.. This finished product of digestion is a perfect compost “starter” only needing a carbon source and the little red compost worm (*elsenia fetida* and *andrei*) which will return it to a perfect plant food!!

All that happened and all you had to do was be a good Habitat! ALAS, not too much to ask!

That was the possible world. Now let's go back through this again with the Modern American Diet (M.A.D). This meal will consist of little or no enzymes, little or no probiotic material or probiotic types, no available minerals, no usable essential fatty acids or amino acids.

What it **WILL** have is highly-processed ingredients, including white flour, salt (inorganic sodium chloride), processed sugar, trans-fats, preservatives and/or fillers (with heavy metals) and on and on.....

So here we go with the M.A.D "dee-licious" meal. You're probably in line at Starbucks or In & Out Burger in your car checking your text messages. Your adrenal glands have been stuck in "Freeze Mode" for forever. You probably use the chomp-chomp-gulp-gulp technique while you wash it down with a latte, or better yet, a diet soft drink!

So let's go through the microbial reaction to this scenario. First off, your mouth is terrified because your nose has relayed the SENSE of rancid fat and high acid potential. The saliva you have is dehydrated because you really don't drink "Just Water." There was essentially no mixing in the mouth so the enzyme stomach gets to deal with the mess. The +/- microbes are realizing there is very little competition so they are free to proliferate on the mostly-acidic and toxic Habitat.

The saliva still manages to send out the state of the chunks. The Pancreas, the small intestine, stomach, gall bladder, the liver and lymph system need to produce as much digestive force and immune response as they can muster. **THE ULTIMATE DISASTER IS A MEAL THAT ELICITS AN IMMUNE RESPONSE IN THE DIGESTIVE SYSTEM.**

Also, the refined sugar has already made it to the small intestine where it immediately passes through the wall to the blood stream to return to the liver for detoxification.

The Fundus (enzyme stomach minus the enzymes) starts producing mucous to protect the walls (acid reflux and/or heartburn. The increasing acid is a result of the +/- microbes exploding on the perfect acidic habitat. The Fundus attempts to process the meal by a contracting action that can partially produce a solution. But mostly it defers to the pylorus to salvage some nutrition.

Large amounts of HCL are produced and the pancreas injects its maximum enzyme availability. If this becomes a chronic way of eating, the pancreas is weakened and probably not producing its ALKALYZING enzymes.³

WITHOUT YOUR ALKALYZING ENZYMES, IT IS IMPOSSIBLE FOR YOUR DIGESTIVE SYSTEM TO FUNCTION PROPERLY.

These high molecular weight and rancid Lipoproteins attack the pancreas at its most vulnerable need. Without a steady source of usable fatty acids,⁴ chronic problems set in. For example, diabetes, heart disease, vascular disease etc. Almost the entire list of symptoms utilized by the retail medical establishment can be tracked to the body needing to store this unusable fat.

Therefore, acidity rises further with maximum mucous production to protect the stomach lining from ulcers. The mixture remains in the stomach longer than usually necessary, which exacerbates the acidity while eliminating all probiotics, enzymes and proteins.

The small intestine has received signals that the gall bladder and pancreas will empty their enzymes and bile reserves. Again, the meal will require an extended stay in the small intestine with additional increases in acidity. By this time, the mixture is a mucous-infused, toxic, off-gassing problem.

The acidic mixture, if chronic, starts etching away at the intestinal wall producing lesions where larger-than-normal-sized food particles can enter the blood stream. Most of these particles will be returned to the liver or attacked by T-Cells. The acidity, if chronic, can debilitate the cellia and villi producing scar tissue and more inflammation which results in more mucus plaque to protect the lining.

The ileocecal valve probably is weak and when the small intestine finally unloads into the ascending colon, the valve may allow backwash, carrying the candida yeast into the small intestine.

Once there it mutates to a fungus-producing hypha that can coat the cillia and villi. If lesions are present, hyphae can pass through the intestinal wall to the bloodstream where it is free to inhabit any weak area of the body.

³ PERHAPS THE MOST DEVASTATING OVERALL DIGESTIVE ISSUE WOULD NO DOUBT BE THE WEAKENING OF YOUR PANCREAS. IT PERFORMS SO MANY CRUCIAL FUNCTIONS. **THE SINGLE MOST IMPORTANT CULPRIT IS BAD FATS.**

⁴ (High Density Lipoproteins with small particle sizes) sources include olive oils, avocados, flax seed, sunflower, coconut and a few others.

Meanwhile, the colon is producing mucous plaque to relieve further acidity and to build a stool as quickly as possible. If this remains chronic, calcium will be added to the mucous to produce a durable form of plaque and become impacted into bowel pockets. NOTE: Since you probably don't have available calcium in your diet, the body starts taking calcium from your connective tissue, and later, bones. (Arthritis, osteoporosis, connective tissue degeneration)

Unfortunately, since the pancreas is weakened and it controls the colon function, the colon is sluggish and peristalsis is slowed--or stopped in severe situations. The transverse colon begins to accumulate plaque in the bowel pockets. The fecal plug becomes a putrified mess, and also starts “depositing” in bowel pockets, trapping harmful bacteria in the plaque layers. This condition creates constipation leading to irritable bowel syndrome, ileosecalitis, Crohn’s disease, diverticulitis, and finally, once parasites get involved,
CANCER.

The natural plant world still offers solutions. Herbs that repair damage and the foods that boost function can reverse most of these digestive conditions. Remember, in nature, restoration happens spontaneously! All you need is the beneficial microbiome, good habitat and clean food!

NOTE: restoring our digestive system is much easier than restoring the soil-plant interface. Some think after it’s been destroyed, it requires generations to regain its complete life force. In closing, I’d like to comment on the state of the Organic Farming Condition. I feel it’s like 2nd stage cancer, for example. GMO’s are slowly seeping into reality. Future drugs will be clones of the probiotic, manipulated sufficiently to be PATENTED. This will be a biome drug.

Also, hydroponics, we now have certified USDA hydroponic production (soil-less, interfaceless, non-full spectrum light source.)

In addition, “Food Safety” which requires chlorine treatment of fresh produce, disabling most microbiology except guess who the +/- guys.

Remember, no problem can be solved from the same level of consciousness that created it. (Albert Einstein) Always strive for a higher frequency.

Peace, Rick Knoll

