

## ***"BODY"***

### ***HUMAN MILK MICROBIOME (HMM)***

In an emergency situation, ideally we are all in good health, have plenty of food, water & sanitary supplies ready to go. We all hope that we are not required to relocate without warning, Sherriff's department knocking on the door with two minutes to grab anyone & anything before being escorted to what we hope is safety. What if the choice is between your & your family's lives or the possessions? At that point your life. The stuff is just stuff.

Let's talk about the body. How can we tune our body up now for maximum resilience in an emergency?

Have you ever heard of or experienced a sympathy coma? Upon hearing of the passing of a loved one, our body can produce so much cortisol, a necessary & critical human hormone, that an individual goes into a coma, in & out of consciousness for days, even months.

How can we tone our bodies to deal with these health & medical emergencies? Let's start with the all important human milk microbiome. HMM for short, it is an amazing collection of trillions of organisms, yes trillion, that agreeably inhabit our digestive system communicating with our brain, making nutrients & digesting nutrients provided to bodies to keep us in top physical health. These symbiotic organisms that live quite comfortably in our bodies are called probiotics. All mammals have them.

In a healthy HMM our critical health boosting organisms, our "probiotics", warn the other elements of our body's immune system to ramp up when invaders are detected. Like Paul Revere of "The British are coming! The british are coming!" fame, bifidobacteria send alerts to our immune system that unwanted "actors" are on the prowl. The body's defenses come on line & prepare for the worst, sometimes even over reacting when the defenders miscommunicate and/or have too few resources. Now, certain probiotics (they form in colonies, probiotics are a family affair) don't wait for reinforcements. They are so aggressive that they outright seek & attack harmful microorganisms that enter the body & establish colonies.

Ever had a sinus infection? Well there you go! Probiotic *Lamisolactobacillus reuteri* & *L. paracasei*, natures designated probiotics armed to the teeth (pun intended) to kill harmful oral & nasal cavity microorganisms, are obviously on vacation. These two healthy probiotic organisms, among others, form colonies that have five or more aggressive weapons they outright attack harmful bacteria/microorganism. *L. reuteri*

puts holes in the cell walls of tooth decay causing bacteria, Streptococcus mutans & Candida albicans. L. reuteri secretes compounds preventing inflammation in the stomach, increasing mucus, chasing off invaders & again poking holes in invaders such as H. Pylori, the ulcer causing bacteria.

These effective lines of defense hold true for all mammals. Each with their own species specific probiotic strains.

Here is where the information presented so far gets real! What if you DON'T have enough of the healthy organisms, "probiotics" in your body? Your digestive system, where most of the trillions of healthy helpers live, its their home too, depends on probiotics. 60% of your body's immune system is in your gut, digestive system. Too few probiotics & "The Huns are at the gates", harmful bacteria take over our body's major systems:

- oral cavity health: tooth decay, gum disease
- nasal passages: ear & sinus infection
- stomach ulcers
- malabsorption of minerals & nutrients in the duodenum
- disrupted hormone & digestive fluid production: insulin, bile, etc.
- Irritable/inflammatory bowel, Crohn's, ulcerative colitis, etc
- SBO (look it up)
- colon cancer (co-factors)
- UTI
- many more (Take a few days & look it up, please.)

A better quality of life happens when the healthy organisms found in an individual's HMM are abundant in their colonies & effective in their evolved roles developed over a billion years of hard work. These microorganisms are a human's best friend, more family than friend because they "cook our meals, wash our dishes & protect our lives", these are real unsung heroes.

## **WHY?**

- Happiness? Direct correlation between healthy HMM & mood. Studies show often as effective as medication. (Do a bit of homework here, "Probiotics & mood").
- Prevent most digestive disorders? Probiotics partner to do just that. (Grocery stores have five or six products on the shelves, in multiple flavors, that contain critical probiotic cultures.) Look for fermented foods with proven organisms. Find kefir, ferment, yogurt, cheese that has L. reuteri, paracasei & the many other critical probiotics that evolved by helping us & assuring their

survival at the same time, same purpose.

- Ulcers: certain Lactobacillus organisms are so precisely evolved that they attack the cause of common stomach ulcers with five separate mechanisms. Amazing health boost for every body & everybody!
- Boost colon, liver, & organ health generally. Probiotics communicate with & provide proteins & other nutrients for the various organs of the body. (L. reuteri & glutathione production).
- Prevent cavities, colds & flu, stomach distress, constipation or diarrhea, bladder infections, yeast issues before they start.
- Dial back & better yet prevent food allergies: cell wall elasticity.
- Reduce the severity & duration of bacterial & viral illness before you become sick? HMM improves digested nutrient to order better than "Door Dash" because no tip is required & they work 24/7. HMM escorts take harmful bacteria to Peyer's patches where the body's lymphatic system disposes harmful invaders. Certain bifidobacteria function as Paul Revere or the short lived Pony Express, the fastest mail across the West. These particular bacteria tell our bodies to prepare for unwanted guests & kick our immune systems into gear to prevent illness.
- The list of benefits is endless. We owe our lives, our existence.

Nature has provided an effective line of nutrient supply chain, aggressive invader defense, & body wide communication that has advanced over an eon of time to land in our bodies. PRO-BIOTICS, with Genus names such as Lactobacillus, Staphylococcus, Enterococcus, & Bifidobacteria initially found in Mother's Milk & hundreds of other probiotics, eventually added in solid foods, shape an infant gut microbial flora & contribute to balanced immune development.

**Why all this information? The HMM is under attack! Many individuals have been reduced to trace amounts of key health partners found in our gut. The massive loss of healthy probiotics due to modern dietary practices & exposure to toxic products in our lives has created a modern epidemic of neurological, digestive, metabolic & systemic disorders. Prevention starts with a healthy diet, exercised body, exercised mind, restored spirit & a functional HMM.**

## **BOOSTING YOUR HMM TODAY!**

### **1. ESTABLISH HEALTHY BIOTICS:**

### **2. ADD DIETARY TO THE START OF EVERY MEAL:** dietary fiber is found in vegetables & fruits, beans & legumes. Your

HMM lives on OR DIES WITHOUT ADEQUATE dietary fiber. (Lists of dietary fiber rich foods to eat are available online). An example of a wonderful dietary fiber source food is KIWI. Add one kiwi a day to your diet for excellent benefits that modify based on the time of day the fresh kiwi is eaten. At bedtime the kiwi is used by the HMM to promote restful sleep.

**3. AVOID FOODS & CHEMICALS THAT DAMAGE THE HMM. COMPENSATE FOR DAMAGE DONE BY DAILY MEDICATIONS TAKEN, SUCH AS CERTAIN BLOOD PRESSURE MEDICATIONS, BY INTRODUCING FRESH PROBIOTICS DAILY.**

- Replace HMM probiotic death due to miracle antibiotic use.
- Avoid modern artificial sweeteners like a plague. Kill HMM.
- No added sugars. Juice in moderation.
- Hot & cold beverage can damage the HMM.
- We take half a cup of L reuteri culture a day to mitigate known blood pressure medication damage to the HMM.
- Wonder supplements such as berberine, cinnamon, clove, garlic, oregano & thyme kill microorganisms. Use cultured probiotics daily to maintain a healthy balance.

**4. CULTURE SUPERSTAR PROBIOTICS AT HOME:** recipes to culture key probiotics at home are available here & online.

**5. START WITH LAMISOLACTOBACILLUS REUTERI:** L. reuteri probiotic strains are thoroughly researched human partners, actually found in all mammals, that act as HMM defenders & factories for glutathione production, our body's master immune cell.

**6. DO IT NOW!** Boost immune health. Increase nutrition availability through better digestion. Prevent several debilitating diseases.

**Take 1/2 cup L. reuteri daily, maybe with a bit of local honey or blueberries for sweetness & flavor. L reuteri lives on prebiotic fiber.**

**Known health benefits of L. reuteri (Zheng 2020):**

- L. reuteri helps babies digest milk.
- Studies show that L. reuteri decreases the migration of bacteria from our bowels (gut lumen) into body tissues. The creation of a

**strong intestinal wall / barrier means less inflammation.**

- **L. reuteri attacks Streptococcus mutans & Candida albicans found in the mouth & often the salivary glands. Both harmful bacteria are primary factors in tooth decay.**
- **L. reuteri aggressively attacks & inhibits the spread of Helicobacter pylori, the root cause of most ulcers, through 5 separate mechanisms,. L. reuteri is often used in Africa, along with four different antibiotics to combat H. pylori infections in infants.**
- **L. reuteri produces glutathione, the master immune molecule in mammals. Glutathione is stored in packets virtually everywhere in the bodies cells. Glutathione can not be supplemented as glutathione. Low glutathione levels correlate directly with poor immune health. L reuteri uses N-acetyl-cysteine, NAC, found in chicken soup, with other available proteins to produce this critical immune system modulator, glutathione.**
- **L reuteri produces anti-microbial molecules that poke holes in bad bacteria. Apoptosis follows where the harmful bacteria self dissolves.**
- **Fungal overgrowth protection for the same reasons with a few extra kickers.**
- **L. reuteri does minimal harm to healthy HMM micro-organisms in spite of its stellar arsenal of effective anti-microbial factors.**
- **L. reuteri colonies out-compete harmful organisms for choice spots in the upper digestive system.**
- **The Mayo clinic noted that L. reuteri fights infections including viral infection.**
- **L. reuteri decreases inflammation, improving quality of life in areas linked to stress, depression, obesity, chronic heart disease, arthritis, depression (listed twice), Alzheimer's & cancer. To be precise, L. reuteri, when found in abundance in the HMM, impacts inflammation. Chronic inflammation has been linked to adverse chronic conditions.**
- **L. reuteri combines synergistically with other HMM organisms to form a line of defense to improve overall human health.**

**Lactobacillus organisms alone consist of 120 identified species, in 30 & growing classified Genera, with hundreds of sub-species/strains benefitting each type of mammal. Each human strain brings a unique health boosting profile to the human condition, remarkably adapting to meet evolving human needs.**

**Culturing healthy HMM organisms at home or consuming healthy probiotic food products from the store can have a PROFOUNDLY POSITIVE HEALTH BENEFIT & DISEASE PREVENTION QUALITY BOOST TO LIFE.**

### **AUTOPHAGY: A CRITICAL SEPARATE HEALTH ISSUE**

**AUTOPHAGY is the art of fasting so that the body goes into house keeping mode. Benefits from intermittent fasting are that it allows the body to perform routine maintenance, recycling damaged cells that might otherwise run amok & sometimes develop into cancer cells. (Ingested burned foods, proteins, can trigger problems. Avoid.)**

**Autophagy brings balance to the body. Who doesn't like a clean house, clutter & all. It's nature's way to provide much needed balance. Intermittent fasting, 18 hours duration, is usually sufficient to activate autophagy & allow our body to reap benefits.**

**Glucose is a common source of energy for our body. Ideally glucose becomes unavailable to our body during intermittent fasting. Glucose is often the main food source of damaged cells, yeast, fungi & a few other unhealthy organisms. Fasting reduces available glucose during the body cleansing process speeding the elimination of unwanted cells. Avoid added sugars anyway. Moderate the consumption of juices & other sugar rich foods for a healthier HMM. Your body & your liver, particularly, will benefit from less sucrose & zero high fructose corn sweeteners.**

**Long periods of fasting, with a number of researched options available, should be undertaken with professional supervision.**