

Growing Healthy Bugs and Bodies

When it comes to the Micro-biome and it's impact on our health one thing cannot be focused on enough. **There is an entire ecosystem at play here and therefore our approach to health must look at the system as a whole.** The way we were born & raised, the level of stress & lifestyle habits we have as adults, and the way in which our food is grown all impact our health. As we'll see, "our health" refers to both human health AND the health of the microbes with which we coexist.

➤ **What is the Micro-biome?**

▪ Human Genome Project

- When the human genome project began it was thought that we'd have 100,000 or more protein coding genes.
- Upon publication of the results in 2004 the project showed that we only have 24,500. Current estimates range between 19,000 – 24,500 genes.
- That means we have the same number of genes as a nematode worm or fruit fly

▪ Human Micro-biome Project

- Micro-biota: bacteria, fungi, yeast
 - ◆ 1000's of Species
 - 100's of strains per species
 - Micro-biota cells outnumber human cells 10:1
- Micro-biome – the DNA
 - ◆ Protein coding genes outnumber human genes 100:1
 - Although they are still (mostly) separate from us, these microbes have profound impacts on our health
- They Take Care of Their Home
 - ◆ Farmers of our cells:
 - Immune function & regulation
 - B-vitamin & vitamin K synthesis
 - Increased absorption of calcium & magnesium
 - Energy production via fermentation in the colon

Our micro-biome is as unique as a fingerprint; which makes it incredibly difficult to determine what a "healthy" micro-biome looks like.

We can however, look at human health as an indicator of microbial health. One thing we know for certain is that things that decrease human health are simultaneously destroying our microbial partners.

➤ **How to Destroy Health**

The destruction of health can really be summed up under one major category: **STRESS**. Stress comes in many different forms.

- Mental/Emotional
- Antibiotics
- Processed Food
- Hormones, pesticides, herbicides, fungicides, etc.
- Changes in nutrient levels, mucus layers, PH balance

➤ **How to Build Health**

It's not just about inoculating our guts with beneficial bacteria. We need to focus on creating the ecosystem in which our micro-biota will thrive. This comes down to our daily habits & lifestyle.

▪ Focus on the Foundations

- Real Food
 - ◆ Local & seasonal
 - ◆ Eat a lot of plants
 - ◆ Bio-individuality
- Cultures & Ferments
 - ◆ Kimchi & Sauerkraut
 - ◆ Kefir & Yogurt
 - ◆ Kombucha
- Get Dirty & Socialize
 - ◆ Garden More
 - ◆ Use Less Soap
 - ◆ Find New Microbes
- Other Lifestyle Factors
 - ◆ Sleep/Relaxation
 - ◆ Movement/Exercise
 - ◆ Stress Resilience

➤ **Additional Resources**

If you're inspired to take action and learn more about this topic here are a few things you can do.

- Eat Local Produce – Tierra Vida Farm is offering a Harvest CSA beginning August 10th. Talk to Daniel tonight or email him Daniel@tierravidafarm.com
- Health & Nutritional Coaching – Bio-individuality is real. If you are struggling to figure out what your body needs to be healthy I encourage you to schedule a free 30-minute strategy session with me. Sign up tonight or email me hana@hanarenee.com
- Additional Learning Opportunities
 - Dr. Jason Hawrelak – pre-biotic & pro-biotic specialist www.probioticadvisor.com
 - Summer Boch – fermentation specialist & educator www.summerbock.com
 - Andrea Nakayama – functional nutritionist & my mentor www.replenishpdx.com/microbiome/

There are literally thousands of research articles on the micro-biome being published every single year. The research is both fascinating and frustrating as we learn more and continually realize how little we know.

Although we do not yet understand exactly how it works, we do know when it's working. Our health & vitality is the indication of a well-functioning ecosystem. Trust that.