## NURTURE YOUR PRECIOUS MICROBIOME

The huge ecosystem of microorganisms that reside in your gastrointestinal tract (your microbiome) largely define your health destiny. Think of them as your most valuable partner in health and healing. What defines a "healthy microbiome" is having a broad array and an abundance of "good" bacteria in your gut - diversity and high numbers.

The microbiome is integral to immunity, modulating inflammation, digestive function, mood, metabolism, stress resiliency and much, much more. Here are key strategies for establishing and maintaining a healthy microbiome.

- Eat an abundance and a variety of plant-based foods- whole grains, beans, nuts, seeds, vegetables, and fruits. Good bacteria "feed" off the fiber that only plant foods can provide. The more real food fiber you eat, the more "good" bacteria you will have in your gut. Additionally, the greater the variety of plant-based foods you eat, particularly fruits and veggies, the healthier your microbiome will be. This is THE MOST POW-ERFUL and EFFECTIVE of all of these strategies. Honestly, if you do not eat an abundance and diversity of plant-based foods, success is IMPOSSIBLE.
- Your microbiomes' preferred types of fiber are inulin and arabinogalactans. The foods that offer the most of these special fibers, also known as prebiotics, are: garlic, onions, leeks, Jerusalem artichokes, asparagus, lentils, oats, carrots, beans, okra, radishes and tomatoes. Think of these foods as your microbiome "superstars".
- Consume foods high in polyphenols regularly: dark chocolate, tea (green and black), berries, cherries, currants, artichoke hearts, citrus, filtered coffee, apples, plums, red wine (one glass a day). Polyphenols are plant based compounds that favorably modulate the microbiome boosting the growth and activity of good bacteria while inhibiting the growth of harmful bacteria.
- Limit consumption of processed, industrial foods, especially fast foods, junk foods, and those lacking fiber. These foods "feed" the bad bacteria, and the more "bad" bacteria you have in your gut, the less good ones you will have as they are in competition. Bad bacteria have been linked to a host of chronic diseases including obesity, heart disease, type 2 diabetes, mental health disorders, and more. Be especially vigilant in avoiding processed foods containing lecithin, polysorbate 80 (PS80), carboxymethylcellulose (CMC), and maltodextrin. These "emulsifiers" have been shown to interfere with a healthy gut lining and disturb the microbiome balance.
- Include probiotic foods (fermented foods containing live beneficial bacteria) regularly in your diet daily is best. Plain yogurt, kefir\*\*, tempeh, sauerkraut, kombucha, kimchee, and any other "fermented" foods that contain live bacteria are invaluable for boosting the health of your microbiome. If you knew what I knew, you would never go a day without them!.

- Do not take antibiotics unless medically required. And if you must take an antibiotic, talk to your doctor about a daily probiotic supplement (they are over-the-counter) or drink kefir twice a day while you are on the antibiotic and for two full weeks thereafter. Other drugs to avoid unless medically indicated include NSAIDS (mortrin, advil, aleeve, etc.) and proton pump inhibitors (prevacid, prilosec, nexium, etc.)
- Avoid conventionally raised beef, pork, lamb, and chicken. Most all will contain traces of antibiotics that studies show adversely affect (kill) the good bacteria in your gut, which may lead to weight gain and other problems The main reason they are given to the animals is to foster rapid weight gain- yikes! Choose antibiotic free or organic varieties of these animal foods to be safe.
- Get out in nature and get dirty. The soil contains an entire ecosystem of good bacteria. Gardening is highly recommended, especially vegetable gardening!
- Get regular physical activity. Exercise has been shown to favorably modulate the microbiome. And fit people have healthier ones!
- Get your sleep. Inadequate sleep leads to disruption of the microbiome. 7-8 hours a night is best.
- Get a household pet dogs are best.
- Avoid use of consumer products that are marketed and labeled as "antibacterial". There is no evidence they have benefits and growing evidence that they kill the good bacteria and may come with risks.
- Future and expectant Mothers breastfeed (12 months optimal), avoid use of antibiotics in pregnancy unless medically required, and avoid Cesarean delivery unless clearly medically indicated.

All material on this handout is provided for educational purposes only. Consult your personal health care provider regarding any specific opinions or recommendations related to your symptoms or medical condition.