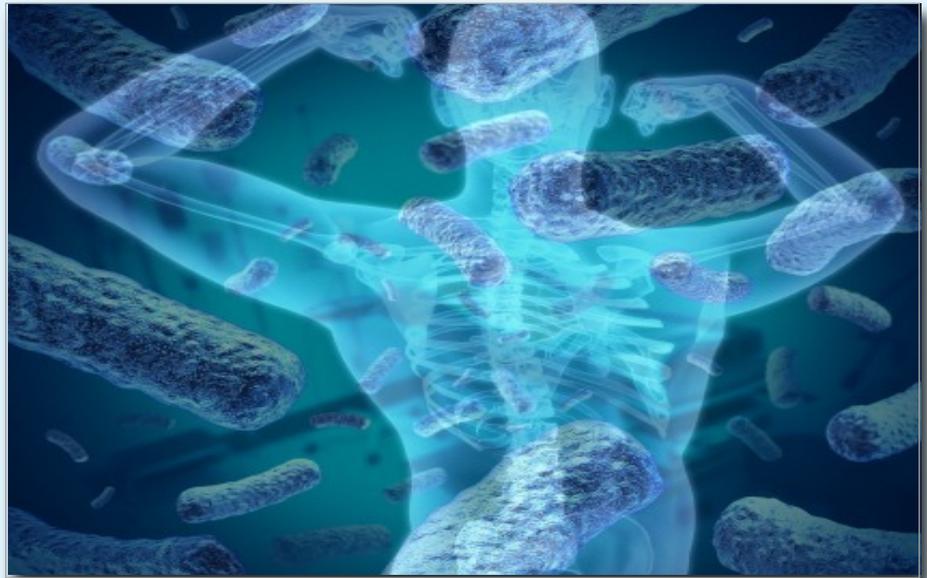


The Power Of Microbiome

"The microbiome have a profound effect on amount of pain, how the immune system works, energy levels, weight, how we think and even our sleep."

I don't think any of us really understand the power of our microbiome. And I'm finding the amount of information that is surfacing reflects their importance. Our microbiome represents over 100 trillion bacteria with over 1,200 different species. Researchers are amazed at the amount of genetic material they control. As humans we have approximately 20,000 genes. I have heard new researchers say the microbiome have over 3 million genes. Through genetic expression the microbiome have a profound effect on the amount of pain we experience, how our immune system works, our energy levels, our weight, how we think, even our sleep is affected by the "little bugs" we never see.

In his new book *Brain Maker*, Dr. David Perlmutter illustrates three radical cases of microbiome repair. One is a child with autism. This particular child was plagued with serious childhood illnesses and had a long history of antibiotic use. His mom asked for a recommendation for a very



unusual procedure called FMT.

FMT is a term you will be hearing more of in the next few years. It stands for "fecal microbial transplantation", a procedure done in specialty hospitals for C. difficile. Basically, the procedure involves transplanting fecal material or ones microbiome from one person to another.

A healthy donor was found with similar genetics. 30 days after the procedure the child was talking and initiating conversations with his mom, be-

havior unheard of before the procedure.

Dr. Perlmutter describes another case of a man in his 40's with advanced MS. He went to England to receive a series of FMTs. He noticed a profound difference after two treatments, but after ten sessions his balance was sufficient that he could walk without a cane. People couldn't believe he ever had MS.

Still another case was a very embarrassed 13 year old boy with Tourette syndrome diagnosed at age 6. This patient's

Tourette's manifested as uncontrollable head and neck movements as well as facial contortions. Dr. Perlmutter recommended a probiotic enema with six capsules of probiotics. Interestingly after one treatment the boy's body became calm. After a therapeutic series of probiotic enemas the tics disappeared.

Clearly all autistic, MS patients and Tourette syndrome patients will not be healed by probiotic treatments, but I point out these cases to show the dramatic effects on so many systems when the microbiome is dysbiotic. And it's not just neurological cases either. Pain cases of all kinds can be caused by these invisible bugs.

I remember the first time I was exposed to the bowel being the focal point for chronic pain. A doctor from Michigan told me about a case where a patient was scheduled for back surgery the next week, the pain was so intense. Chiropractic care, physical therapy, message, etc. were utilized to no avail. This particular doctor used applied kinesiology to detect a weak, dysbiotic bowel. He used several products to clean and restore competence. The patient recovered nicely and never needed back surgery.

You can see a link to a webinar Where Dr. Vasquez discusses the mechanisms between chronic pain and the microbiome.

Another piece to the microbiome puzzle is the bacterial byproducts. One of the most important is lipopolysaccharides (LPS). Lipopolysaccharides are the outer covering of the gram-negative bacteria in our gut. These bacteria represent as much as 50-70% of our intestinal flora. LPS are classified as endotoxins because they come from within the bacteria.

Did you know LPS is used experimentally in laboratory animals to instantly create inflammation? If we have LPS in our blood we definitely have a leaky gut. And as we have discussed in the past, a leaky gut generally means a leaky blood brain barrier.

Let's look at several charts that were published in *Brain Maker* by Dr. Perlmutter. They show a direct correlation between LPS and several neurological conditions.

The first one shows elevations in LPS with autism vs. non-autistic children. (Show graph)

The second chart shows elevations of LPS in patients with chronic depression. (Show graph)

The next chart shows the relation of LPS with healthy controls vs. Alzheimer's patients. (Show graph)

Finally, the last chart shows a comparison of LPS in early and late onset ALS. (Show graph).

These are powerful pictures.

Dr. Vasquez in his work, *Human Microbiome and Dysbiosis in Clinical Disease*, points out that dysbiosis can occur in the following areas: the mouth, sinus, respiratory tract, genitourinary tract, skin, in tissue as bacteria, in tissue as viruses, as well as the gastrointestinal tract.

By the way Dr. Vasquez believes this information is so essential he has an online course on the microbiome that will make you an expert. It's also approved for CE credits as well, see connecting link.

We will come back to this discussion in more detail; however, I wanted to impress upon you that making simple dietary changes like implementing an anti-inflammatory diet, drinking sufficient water, eating fermented vegetables, while taking prebiotics and probiotics like Bio-Doph-7 Plus is the cornerstone of any wellness program.

We are making powerful changes in our patient's lives by healing their gut and restoring their microbiome.

Thanks for reading this week's Tuesday Minute edition. I'll see you next Tuesday.