Medical Xpress

Be nice to your bacteria and they'll be nice to you, doctors say

September 23 2013, by Nancy Churnin

At 60, Marty Wichter of Arlington, Texas, found himself in constant digestive distress and at a loss for what to do.

Then he tried a probiotic capsule packed with live bacteria. Within 48 hours, his problems went away. Wichter is now 67, and the problems haven't returned except for the handful of occasions when he's taken less than five a week, he says.

Introducing bacteria into the body is part of a bold new way of thinking about health, says biologist Rob Dunn, author of the best-selling"The Wild Life of Our Bodies: Predators, Parasites, and Partners That Shape Who We Are Today"(HarperCollins, $26.99).

Like an increasing number of experts, Dunn, a biology professor at North Carolina State University, believes our bodies are ecosystems that require a good balance of healthy bacteria to help digest food and fend off certain diseases. He sees a correlation between our war against bacteria in the form of an overuse of antibiotics and antibacterial wipes, and the rise in a host of chronic conditions from Crohn's to inflammatory bowel disease, rheumatoid arthritis, lupus, diabetes, multiple sclerosis, schizophrenia and autism.

"I don't mean to discredit antibiotics," he says. "The use of antibiotics to control pathogens has saved billions of lives. But we're starting to learn that in addition to warding off bad bacteria, we need to start gardening good ones. There are thousands of species in our bodies and we don't

know which ones are important yet, but we do know that having a good community is important."

Wichter takes probiotics with the support of Dr. Jay Yepuri, his gastroenterologist with Digestive Health Associates of Texas and on the medical staff at Texas Health HEB in Bedford.

Yepuri says that while much remains to be learned about probiotics and recommended amounts, research and his personal experience with patients have shown him that "we don't know how much good it does, but it's not going to hurt you."

The same principle applies to fecal transplants. That procedure injects bacteria in the body by transferring stool from a healthy person into the intestines of those infected withClostridium difficile, a bacterium that can lead to diarrhea and colitis and affects up to 3 million people in the United States.

A January report in theNew England Journal of Medicinedeclared that in one study in the Netherlands, fecal transplants cured 94 percent of the patients and was such a success that the study was stopped and the treatment offered to the control group.

The Food and Drug Administration restricted its use earlier this year, with doctors required to submit an extensive application and wait up to 30 days for a response. After an outcry, the FDA lifted the restrictions June 17 and allowed the procedure for infections that aren't responsive to standard therapies.

Another procedure showing promise is the transplanting of earwax from an ear with healthy bacteria to one with chronic infections.

Dr. Lora Hooper, an associate professor of immunology and of

microbiology at the University of Texas Southwestern Medical Center, says that before she began her research in 1996, she had thought all bacteria were bad and it would be good to eliminate as many as she could.

Then, as she learned about the extent of bacterial species within the body, she was impressed with their beauty and complexity, she says. "I found out we're actually more bacterial than we are human. We've got 100 trillion bacteria in our gut. That's 10 to 100 times more bacteria than cells in your body. It's almost as if we have another organ inside us with a mind of its own."

That's a good thing, says Hooper, who also serves as a Howard Hughes Medical Institute investigator at UT Southwestern's Cancer Immunobiology Center and its Center for the Genetics of Host Defense. "There's no question that the composition of our microbial communities determines our health."

The National Institutes of Health is studying that composition as part of the Human Microbiome Project, which it launched in 2008 to investigate how changes in the human microbiome affect health or disease.

Dunn says it's an exciting time, with scientists finding that the more we know, the more we realize we don't know. The inside of our bodies is like a wilderness and the more we explore, the more questions we have, he says.

He wonders: Is it possible there is a connection between particular bacteria in our body and regulation of our stress levels? Could certain bacteria and their interaction with the hormones that regulate appetite help determine whether we are heavy or lean? Babies born by natural childbirth tend to have fewer allergies or cases of asthma than those born

by Caesarian section - could that be because they pick up healthy bacteria through the mother's birth canal?

Is it time to take a more critical look at the frequency of antibiotics prescriptions in the doctor's office, and also at the antibiotics routinely pumped into the animals that we consume?

As consensus grows for the important role that healthy bacteria play in the gut, Dunn hopes a new mind-set will emerge.

Instead of humans seeing themselves at war with the natural world, he would like to see a friendlier view of the living things within us and the vegetation, other species and humans with whom we exchange salutary microbes.

That's why he encourages his own two boys to play in the dirt and to wash their hands with simple soap and water. And he's considering getting a dog.

Studies have shown that families with dogs tend to be healthier, possibly because the dogs bring nature outside us into our homes, he says.

Wichter also believes that probiotics are just one step in his ongoing journey. He avoids over-the-counter medications that kill bacteria, he consumes whole grains and fibers that promote healthy bacterial growth, and he walks outside regularly.

"You have to know your body if you want to live and stay healthy," he says.

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MICROBE HEALTH

What may help your microbes (and certainly won't hurt), according to Rob Dunn, author of"The Wild Life of Our Bodies":

Take probiotics in the form of unsweetened yogurt or capsules.

Stick to a healthy, balanced diet that is high in fibers, low in sugar and processed foods, and as free as possible of antibiotics and pesticides.

Spend time outdoors among trees, plants and animals.

Use plain soap and water for sanitizing, not antibacterial soap or wipes.

Discuss with your doctor limiting use of antibiotics and over-the-counter medications to when they are absolutely necessary.

Consider getting a dog.

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