

THE HEALTH NUGGET



FEBRUARY 2008

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Gorgeous on the Inside, Part 3

Secluded in the recesses of our abdominal cavity dwells what has been thought of as an inconsequential, worm-like structure dubbed the *appendix*. So small, it receives little notice until it becomes infected. Its removal has apparently verified its menial role as it seemingly leaves the individual in perfect health. The appendix's biological purpose has puzzled scientists—until recently.

The hypothesis is that the appendix is a 'germ factory' cultivating good bacteria, as well as storing them. The storehouse 'reboots' the intestines, repopulating the gut with good bacteria after a bout of diarrhea for example.

William Parker, Ph.D., assistant professor of experimental surgery at Duke University Medical Center says, "While there is no smoking gun, the abundance of circumstantial evidence makes a strong case for the role of the appendix as a place where the good bacteria can live safe and undisturbed until they are needed."¹ Parker "believes that the immune system cells found in the appendix are there to protect, . . . the good bacteria."²

Protecting good bacteria and restoring microbial harmony is gaining attention. The sale of probiotics is fairly big business. As a marketable item, probiotics are supplements of live friendly microorganisms, similar to those naturally found inside the human gut. *Acidophilus* has been a familiar term, but probiotics contain various groups and strains. Personally, I think probiotics are valuable. They can replenish our system after a course of medication, strengthen when traveling or ill, and help restore the good guys in our gastrointes-

tinal tract. Different brands of probiotics vary in their effectiveness and strains.

As valid as I think probiotics are, I would like to focus on long-term maintenance. We can supplement, but if the lifestyle does not harmonize with goals for optimum health, achievement is limited. Preservation of our internal environment is partially accomplished as we become more familiar with what disrupts harmony and destroys the microbial benefactors. Unfriendly bacteria can gain the upper hand as a result of various factors:

- Changes in the acid/alkaline balance of the bowels can play a major role in reducing the growth of beneficial bacteria and encouraging the growth of harmful organisms.
- Non-steroidal anti-inflammatory drugs (NSAIDs) like Advil, Motrin, Midol, etc., as well as antibiotics, cortisone therapy, and oral contraceptives are destructive to intestinal flora.³
- Chlorine in the drinking water.
- Radiation and chemotherapy.
- Antibiotic residues in non-organic meat, poultry and dairy.
- A diet high in meat and fat prolongs digestion and promotes growth of harmful bacteria.
- Constipation.
- Cigarettes, alcohol, stress, and aging. After the age of 60-65 healthy bacteria levels plummet.
- Disease and disease-causing bacteria, yeasts, fungi and parasites.

We all have our own special mix of bacteria. "Interactions between a person and the microorgan-

isms in his body, and among the microorganisms themselves, can be crucial to the person's health and well-being."⁴ Diet has been found to have a major impact in this balancing act. "Extensive studies . . . have shown that the intestinal flora is affected by the kind of food ingested."⁵

Diets that emphasize meat and casein (a milk protein) result in a decrease in the numbers of lactobacilli and an increase in coliform organisms (e.coli). Sugar and refined carbohydrates feed yeasts like Candida. Basically, the bad guys love the typical Standard American Diet with its emphasis on white flour products, high fat, meats and sweets. Minimizing processed foods and sugar, focusing on whole foods will give the good guys the advantage. Why whole foods? Believe it or not, our friendly flora love fiber as found in fruits, nuts, grains, vegetables and legumes.

"The gut microflora has an important role in the fermentation of fibre, resulting in production of short-chain fatty acids (SCFAs). SCFAs increase the blood flow to the colon and provide the cells in the wall of the intestine with a metabolic fuel. . . . The SCFAs also lower the pH of the contents of the large intestine, which creates an environment that prevents the growth of harmful bacteria. . . . A lower pH also aids the absorption of minerals, such as calcium and magnesium."⁶

Non-digestible food ingredients found in whole foods have been labeled 'prebiotics.' As these prebiotics enter into the large intestine unchanged they are there "selectively utilized by probiotics."⁷ Prebiotics support friendly bacteria "stimulating . . . growth and/or activity."⁸ A sample of dietary sources of prebiotics (*fructooligosaccharides* (FOS), *inulin*, *polyphenols*, *pectins*) are oats, whole wheat, barley, soybeans, bananas, chicory root, onions, fruit, sweet potatoes, asparagus, garlic, chicory root, etc.

Prebiotics and probiotics work together. As we consume foods containing prebiotics as

well as probiotic cultures as found in yogurt or supplements we will be helping to sustain our own ecosystem.

Basing food choices simply on what looks good, often has little value. When our internal needs determine food choices we end up gorgeous on the inside.

Jesus knows what it is like to be discounted on the basis of external appearance. Jesus wasn't ugly, but he was just an ordinary looking human, like you and me. On earth, He tried to redirect men's minds from what he could do for them externally to what He wanted to accomplish internally. He said, "Take heed that the light that is *inside* of you be not darkness For from *within*, out of the heart of men . . . first cleanse the *inside* of the cup and dish . . . the Kingdom of heaven is *within* you" Matthew 23:26

Today He is still longing to manifest His power inside of us. According to the riches of His glory, He wants to strengthen you with might through His Spirit in the inner man, that Christ may dwell in your hearts through faith, and that you would be filled with the height of beauty, "the fullness of God." Galatians 3:16.

¹ *Appendix Isn't Useless At All: It's A Safe House For Good Bacteria*. Science Daily. <http://sciencedaily.com/releases/2007/10/071008102334.htm>.

² Ibid.

³ Howenstine M.D., James. *How Can Intestinal Bacteria Influence Brain Function?* 3/10/04. Pg. 1. <http://www.newswithviews.com/Howenstine/james7.htm>.

⁴ <http://www.medicinenet.com/probiotics/page2.htm>.

⁵ Adelaide Evenson, Elizabeth McCoy, Beverly Ransone Geyer, and C. A. Elvehjem. "The Cecal Flora of White Rats on a Purified Diet and Its Modification by Succinylsulfathiazole" December 31, 1945. <http://jb.asm.org/cgi/reprint/51/4/513.pdf>.

⁶ <http://www.blackwell-synergy.com/doi/full/10.1111/j.1467-3010.2007.00611.x>

⁷ <http://ajcn.org/cgi/content/abstract/73/2/399S?maxtoshow=&HITS=10&hits=10&RESULTFORMAT=&searchid=1&FIRSTINDEX=0&minscore=5000&resourcetype=HWCIT>.

⁸ Roberfroid, Marcel B. *Prebiotics: preferential substrates for specific germs?* American Journal of Clinical Nutrition, Vol. 73, No. 2, 406S-4090s, Feb. 2001. <http://www.ajcn.org/cgi/content/abstract/73/2/406S?maxtoshow=&HITS=10&hits=10&RESULTFORMAT=&author1=roberfroid%2C+marcel&searchid=1&FIRSTINDEX=0&sortspec=relevance&resourcetype=HWCIT>.

