1200 Maricopa Hwy • Suite A • Ojai, CA 93023 • 2128 Pico Blvd • Santa Monica, CA 90405 • Tel 805-640-0180 • Fax 805-640-0181

PROBIOTICS AND PREBIOTICS

by Dr. Robin Bernhoft, MD, FACS, DABEM, FAAEM

There are more bacteria in the intestinal tract than the total number of cells in our body. In health, "good" bacteria like Acidophilus and Bifidobacteria dominate. These bacteria are very useful to our bodies, helping break down food into useable fragments, producing nutrients that feed the intestinal cells and generating a number of vitamins. Beneficial bacteria of this sort we call probiotics.

Probiotics play an important role in restoring intestinal integrity. (See Why The Emphasis On Digestion). This happens in part because of their nutrient capacity and part because they drive out and replace bacteria, which produce leaky gut.

Prebiotics are starches and similar foodstuffs, which help probiotics function and grow. These may also very helpful in restoring gut integrity.

The Standard American Diet generally favors bad bacteria and discourages probiotics. That being so, most Americans need to take probiotic supplements from time to time to maintain good digestive function. This is especially true of people who have had "leaky gut" in the past - it seems their resistance to GI trouble is less than it should be, and unless they continually replace their probiotics, they can relapse to some extent.

Our office obtains very high quality probiotics for our patients, at a reasonable price. Probiotics must remain refrigerated to preserve viability of the bacteria. Do not buy probiotics which claim they do not have to be refrigerated; once the bacteria are exposed to air and moisture, they begin to grow and need to be refrigerated to stay vital.

Selected References:

- 1. Miller AL. The pathogenesis, clinical implications and treatment of intestinal hyperpermeability,. Alt Med Rev. 1997; 2(5):330-345.
- 2. Kalliomaki M, et al. Probiotics in primary prevention of atopic disease: a randomised placebocontrolled trial. Lancet 2001; 357 (9262):1076-9.
- 3. Islauri E. Probiotics in human disease. Am J Clin Nutr. 2001; 73(suppl): 1142S-6S.
- 4. Duggan C, et al. Protective nutrients and functional foods for the gastrointestinal tract. Am J Clin Nutr. 2002; 75(5): 798-808.
- 5. Bourlioux P, et al. The intestine and its microflora are partners for the protection of the host: report on the Danone Symposium "The Intelligent Intesting", Paris, June 14, 2002. Am J Clin Nutr 2003; 787(4):675-83.
- 6. Church TS, et al. Reduction of C-reactive protein levels through use of a multivitamin. Am J Med 2003; 115(9): 702-7.
- 7. Scheline RR. Metabolism of foreign compounds by gastrointestinal microorganisms. Pharmacol Rev. 1973; 25:451-523.

1200 Maricopa Hwy • Suite A • Ojai, CA 93023 • 2128 Pico Blvd • Santa Monica, CA 90405 • Tel 805-640-0180 • Fax 805-640-0181

- 8. Swidsinksi A, et al. Mucosal flora in inflammatory bowel disease. Gastroenterology. 2992; 122:44-54.
- 9. Fooks LJ, et al. Probiotgics as modulators of the gut flora.. Br J Nutr. 2002; 88(Suppl 1): S39-
- 10. Lin HC. Small intestinal bacterial overgrowth: a framework for understanding irritable bowel syndrome. JAMA. 2005; 292:852-8.
- 11. Spiller R. Probiotics: an ideal anti-inflammatory treatment for IBS? Gastroeneterology. 2005; 128:783-5.
- 12. Macpherson AJ, et al. Interactions between commensal intestinal bacteria and the immune system. Nat Rev Immunol. 2004; 4:478-85.
- 13. Rosenfeldt V, et al. Effect of probiotics on gastrointestinal symptoms and small intestinal permeability in children with atopic dermatitis. J Pediatr. 2004; 145:612-6.