

A New Paradigm for Crohn's Strategies

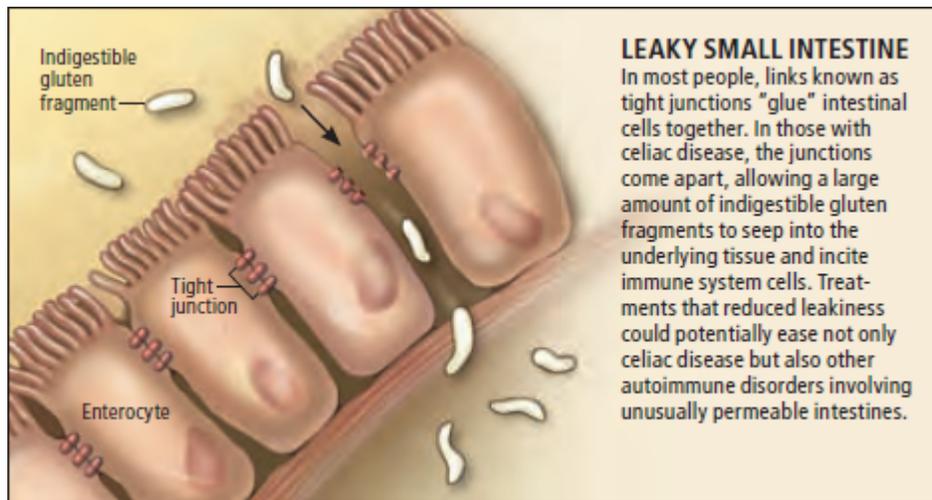
www.crohnsdad.com

Framework Matters:

“Nothing in biology (nutrition or medicine) makes sense except in the light of evolution”.
Dr. Loren Cordain

Intestinal Barrier Function & Leaky Gut:

- **The western diet and lifestyle and diseases of civilization** Research Reports in Clinical Cardiology: [2011 March](#)
- **Mechanisms of disease: the role of intestinal barrier function in the pathogenesis of gastrointestinal autoimmune diseases.** Fasano *Nat Clin Pract Gastroenterol Hepatol.* [2005 Sep](#)
- **Zonulin and Its Regulation of Intestinal Barrier Function: The Biological Door to Inflammation, Autoimmunity, and Cancer** Alessio Fasano *Physiol Rev* [2011 Jan](#)
- **Leaky Gut and Autoimmune Diseases** Fasano *Clinic Rev Allerg Immunol* [2011 Nov.](#)



Increasing Intestestinal Permeability

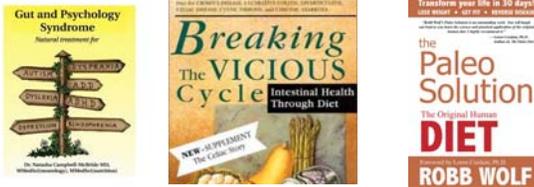
Gluten/Prolamines	Casein	HBC	Stress
Lectins & Saponins	Low Vitamin D	PPI	Sleep Deprivation
Omega 6 Fats	Antibiotics	Alcohol	Endurance Exercise
FODMAPs	NSAIDs	Capsaicin	

Improving Intestestinal Permeability

IBD Diet	Krill Oil	Probiotics & Fermented Food	Colostrum
Proline (Broth & Gelatin)	Curcumin -- BCM95	Mutaflor, VSL#3, Lactobacillus paracasei	LDN
CLA (Bones & Butter)	Boswellia -- 5Loxin	S. Boulardii, B. Coagulans	Cannaboids (CBD)
D3 & K2	L. Glutamine	Sleep, Meditation/Yoga, Acupuncture	IF & HIIT = Growth Hormone

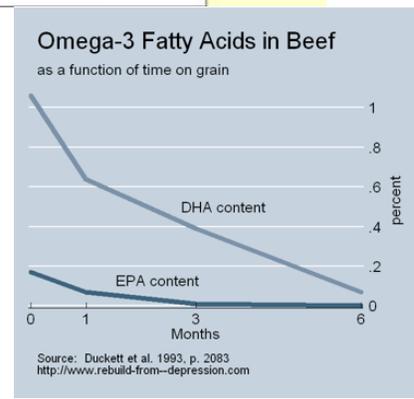
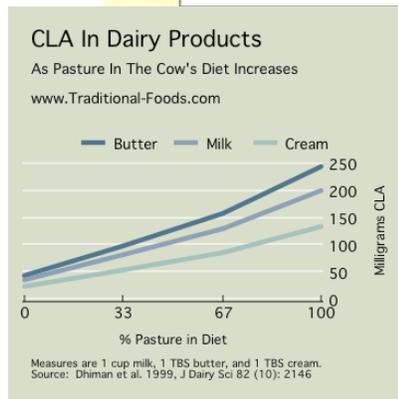
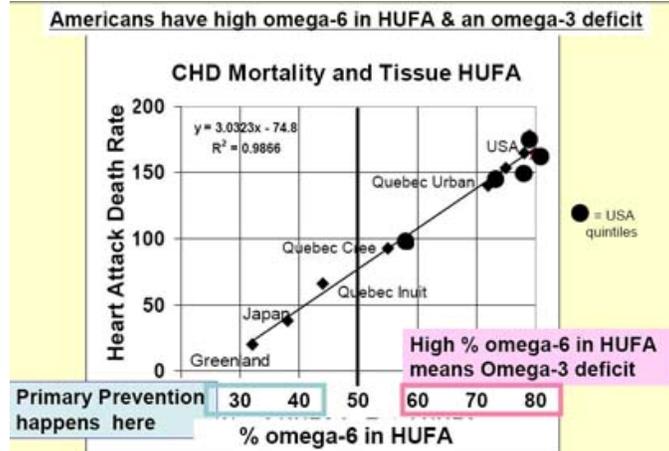
Diet:

- **SCD -- Pilot Testing a Novel Treatment for Inflammatory Bowel Disease** Clinical and Translational Science Research Retreat. [2011 May](#).
- **Does gluten cause gastrointestinal symptoms in subjects without coeliac disease?** *J Gastroenterol Hepatol.* [2011 Apr](#)
- **Dietary Lectins as Disease Causing Toxicants** *Pakistan Journal of Nutrition* [2009](#)
- **Evidence-based dietary management of functional gastrointestinal symptoms: The FODMAP approach.** *J Gastroenterol Hepatol.* [2010 Feb](#)
- **Dietary fructooligosaccharides increase intestinal permeability in rats.** *J Nutr.* [2005](#)
- **Indigestible disaccharides open tight junctions.** *Dig Dis Sci.* [2004 Jan](#)
- **GAPS – www.gaps.me, SCD – www.scdlifestyle.com Paleo – www.robbwolf.com**



Fat Balance:

- **Linoleic Acid, a Dietary N-6 Polyunsaturated Fatty Acid, and the Aetiology of Ulcerative Colitis - A European Prospective Cohort Study.** *Gut* [2009 July](#)
- **The Type of Dietary Fat Modulates Intestinal Tight Junction Integrity, Gut Permeability, and Hepatic Toll-Like Receptor Expression.** *Alcohol Clin Exp Res.* [2011](#)
- **Conjugated linoleic modulates immune responses in patients with Mild to Moderately active Crohn's disease.** *Clinical Nutrition* [2012 March](#).
- **Lipid based therapy for ulcerative colitis-modulation of intestinal mucus membrane phospholipids as a tool to influence inflammation.** *Int J Mol Sci.* [2010 Oct](#)
- **Butyrate enhances the intestinal barrier by facilitating tight junction assembly via activation of AMP-activated protein kinase in Caco-2 cell monolayers.** *J Nutr.* [2009](#)



Microbiota & Probiotics:

- Gut Microbiota and Pediatric Disease *Dig Dis* [2011](#)
- Association between the use of antibiotics and new diagnoses of Crohn's disease and ulcerative colitis. *Am J Gastroenterol.* [2011 Dec](#)
- Association of Repeated Exposure to Antibiotics With the Development of Pediatric Crohn's Disease--A Nationwide, Register-based Finnish Case-Control Study. *Am J Epidemiol.* [2012 Apr](#)
- Influence of *Saccharomyces boulardii* (Florastor) on the intestinal permeability of patients with Crohn's disease in remission. *Scand J Gastroenterol.* [2008](#)
- Anti-inflammatory effects of *Saccharomyces boulardii* mediated by myeloid dendritic cells from patients with Crohn's disease and ulcerative colitis. *Am J Physiol Gastrointest Liver Physiol.* 2011 Dec
- The probiotic *Escherichia coli* Nissle 1917 (Mutaflor) reduces pathogen invasion and modulates cytokine expression in Caco-2 cells infected with Crohn's disease-associated *E. coli* LF82. *Trop Med Int Health.* [2011 May](#)
- Probiotic Bacteria Produce Conjugated Linoleic Acid Locally in the Gut That Targets Macrophage PPAR γ to Suppress Colitis. *PLoS One.* 2012
- Lactocepin Secreted By *Lactobacillus* Exerts Anti-Inflammatory Effects By Selectively Degrading Proinflammatory Chemokines *Cell Host & Microbe* [2012 April](#)
- Helminthic therapy: improving mucosal barrier function. *Trends Parasitol.* 2012 Mar

Supplements:

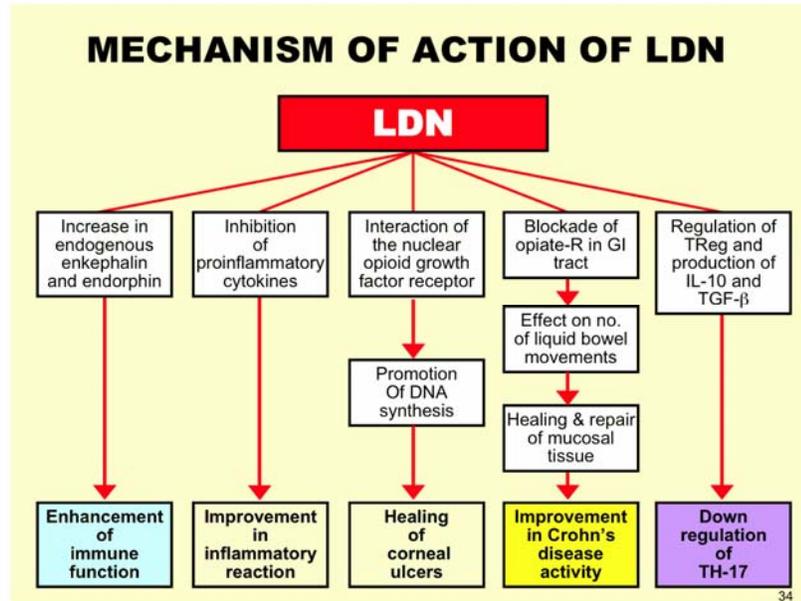
- Vitamin D and gastrointestinal diseases: inflammatory bowel disease and colorectal cancer. *Therap Adv Gastroenterol.* 2011 Jan

Target Vitamin D Levels 25(OH)D	
Dr. Jaquelyn McCandless	65 – 90
Robb Wolf	60 – 80
www.VitaminDCouncil.org	50 – 80
www.GrassRootsHealth.net	40 – 60
Vitamin D IBD Study	30 – 60

- Curcumin Ameliorates Hydrogen Peroxide-Induced Epithelial Barrier Disruption. *Dig Dis Sci.* 2012 March.
- Therapy of active Crohn disease with *Boswellia*. *Z Gastroenterol.* 2001 Jan
- Dietary supplementation of krill oil attenuates inflammation and oxidative stress in experimental ulcerative colitis in rats. *Scand J Gastroenterol.* 2012 Jan
- Glutamine and Whey Protein Improve Intestinal Permeability and Morphology in Patients with Crohn's Disease: A Randomized Controlled Trial. *Dig Dis Sci.* 2011 Oct
- Zinc supplementation tightens "leaky gut" in Crohn's. *Inflamm Bowel Dis.* 2001 May
- Intestinal immune system of young rats influenced by cocoa-enriched diet. *J Nutr Biochem.* 2008 Aug

Drugs:

- **Therapy with the opioid antagonist naltrexone promotes mucosal healing in active Crohn's disease: a randomized placebo-controlled trial.** [Dig Dis Sci.](#) Smith & Zagon 2011 Jul



- **Rifaximin-extended intestinal release induces remission in patients with moderately active Crohn's disease.** [Gastroenterology.](#) 2012 May
- **Cannabinoid-induced apoptosis in immune cells as a pathway to immunosuppression.** [Immunobiology.](#) 2010 Aug
- **Cannabinoids mediate opposing effects on inflammation-induced intestinal permeability** [British Journal of Pharmacology](#) 2011
- **Linaclotide in the management of gastrointestinal tract disorders.** [Drugs Today \(Barc\).](#) 2012 Mar
- **5-aminosalicylate is not chemoprophylactic for colorectal cancer in IBD: a population based study.** [Am J Gastroenterol.](#) 2011 Apr
- **Efficacy of 5-aminosalicylates in Crohn's disease: systematic review and meta-analysis.** [Am J Gastroenterol.](#) 2011 Apr