## EAT WELL - MOVE WELL - THINK WELL®

## **Living the Innate Lifestyle™**

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Probiotic Supplementation Reduces Inflammation, Cartilage destruction and Joint Pain as well as Reduces Oxidative Stress, C-Reactive Protein and Blood Sugar in Diabetics!

Asemi, Z. et al. Effect of multispecies probiotic supplements on metabolic profiles, hs-CRP, and oxidative stress in patients with type 2 diabetes.

So et al. Lactobacillus caseii enhances type II collagen/glucosamine-mediated suppression of inflammatory responses in experimental osteoarthritis. Life Sciences 2010 Vol 88, Issues 7-8, pgs 358-366.

## **QUOTE BOARD:**

"In conclusion, multispecies probiotic supplementation, compared with placebo, for 8 weeks in diabetic patients prevented a rise in fasting plasma glucose [fasting blood sugar] and resulted in a decrease in hs- CRP [C-Reactive Protein] and an increase in plasma GSH [glutathione]."

"Our study provides evidence that L. casei could act as a potent modulator for Osteoarthritis Treatment by reducing pain, inflammatory responses, and articular cartilage degradation."

## What You Need to Know:

Chronic inflammation and oxidative stress (oxidation) are at the root of virtually all chronic illnesses including arthritis, chronic joint and muscle pain, cardiovascular disease, headaches, fibromyalgia, chronic fatigue, irritable bowel, Crohn's disease, obesity, diabetes and many more.

The process of arthritis involves inflammation and articular or joint cartilage degradation, both of which can lead to pain. *Probiotic supplementation reduces inflammation, joint damage, and pain.* 

One of the best measures of overall inflammation is a biomarker called C-Reactive Protein. The higher the level of C-Reactive Protein, the higher the level of inflammation. *Probiotic supplementation reduces C-Reactive Protein levels*.

Glutathione is a powerful antioxidant that your body produces and uses to reduce the process of oxidation (to fight free radicals) that damages cells and DNA. Glutathione levels are a measure of your body's ability to fight oxidative stress. *Probiotic supplementation increases the level of glutathione in the body.* 

Fasting blood glucose or blood sugar levels are a measure of diabetes. *Probiotic supplementation reduces blood sugar levels*.