

## Probiotic Research for Rheumatoid Arthritis

I have included this article from “PubMed” so that many of you can see how easy it is to do your own research on Probiotic therapy. Presently, there are hundreds if not thousands of research projects going on around the world involving our bacteria; where they live and what they help our body to do. It is simple to google “pub med” and search for your disease process and the word “probiotic.” You may be pleased with the information that you are able to find. Below is a copy of my search when I entered “Probiotic” and “Rheumatoid arthritis.” You can read for yourself about the research that was performed and the conclusions that are being made. Try googling “PubMed” for “Hypertension” and “Probiotics” and see what you find.

## Probiotic Research for Rheumatoid Arthritis

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### **Effects of Lactobacillus casei supplementation on disease activity and inflammatory cytokines in rheumatoid arthritis patients: a randomized double-blind clinical trial.**

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#### **Author information**

#### **Abstract**

#### **AIM:**

The present study aimed at investigating the effects of Lactobacillus casei 01 supplementation on symptoms and inflammatory biomarkers of rheumatoid arthritis (RA) in women.

#### **METHOD:**

In this randomized double-blind clinical trial, female patients with established RA for more than 1 year, 20-80 years of age and body mass index (BMI) lower than 40, who followed stable medication for 3 months prior to the supplementation, were randomly allocated to receive either one capsule containing 10(8) colony forming units (CFU) of L. casei 01, or a placebo for 8 weeks; allocation was stratified by BMI and menopausal status. Disease activity score-28 (DAS28) was calculated, European League Against Rheumatism (EULAR) response was evaluated and the cytokines, interleukin (IL)-1 $\beta$ , IL-6, IL-10, IL-12 and tumor necrosis factor (TNF)- $\alpha$  were measured.

#### **RESULTS:**

Thirty patients were recruited in each group; 22 and 24 patients were analyzed in the probiotic and placebo groups, respectively. *L. casei* 01 supplementation decreased serum high-sensitivity C-reactive protein (hs-CRP) levels, tender and swollen joint counts, global health (GH) score and DAS28 ( $P < 0.05$ ). More patients in the *L. casei* 01 group had moderate response to the treatment, based on the EULAR criteria, at the end of the study ( $P < 0.01$ ). At the end of the study, a significant difference was observed between the two groups for IL-10, IL-12 and TNF- $\alpha$  changes through the study course ( $P < 0.05$ ), in favor of the probiotic group. No adverse effects were reported for the intervention.

**CONCLUSION:**

Probiotic supplementation may be an appropriate adjunct therapy for RA patients and help alleviate symptoms and improve inflammatory cytokines.

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**KEYWORDS:**

DAS28; EULAR criteria; inflammatory cytokines; probiotics; rheumatoid arthritis