



## How Probiotic Reduce Symptoms of Irritable Bowel Syndrome?

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### **Introduction:**

Irritable bowel syndrome (IBS) is a common gastrointestinal disorder in children that may lead to anxiety, frequent physician visits and school absenteeism. The aim of this study is to review effects of probiotic for irritable bowel syndrome.

### **Materials and Methods:**

This study review articles about probiotic for irritable bowel syndrome in pubmed and google scholar.

### **Results:**

Multiple etiologic factors were suggested for IBS, including psychosocial factors, altered gastrointestinal motility, malfermentation of food residues and changes in the intestinal micro flora. It is reported that patients with IBS have a great homogeneity in the fecal flora with a decrease in lactobacilli, coliforms and bifidobacteria in comparison to healthy individuals. The beneficial effects of probiotics in IBS could be explained by increasing the mass of beneficial bacteria such as lactobacilli strains in the digestive tract, decreasing bacterial overgrowth in the small bowel. Recently it was also demonstrated that some lactobacilli strains may modulate intestinal pain attacks by inducing the expression of  $\mu$ -opioid and cannabinoid receptors in the intestinal epithelial cells. Probiotics can also reinforce the intestinal mucosal barrier and normalize the motility of the digestive tract and its visceral sensitivity and reversing the imbalance between the pro- and anti-inflammatory cytokines so that suggested as a therapeutic option for IBS.

### **Conclusion:**

Probiotic has been suggested as a therapeutic option for IBS by modulation pathophysiologic events in these patients.

**Keyword:** Probiotic, IBS, Children.

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