

**IS12****Irritable bowel syndrome and microbiota: special focus on diet**

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Irritable Bowel Syndrome (IBS) is a common gastrointestinal disorder that is manifested by abdominal pain and a changed rhythm of bowel movements lasting at least three months. It affects the small and large intestine, and 10-15% of adults, mostly women, suffer from the disorder. The exact cause is not known, but it is assumed that inflammation and infection, stress, and disruption of the balance of neurotransmitters and microbiota contribute to the development of the syndrome. Available treatments are numerous and include dietary supplements (eg. dietary fiber, peppermint oil, probiotics), dietary changes, antidepressants, psychotherapy, acupuncture, antidiarrheals, and laxatives. Sometimes irritable bowel syndrome is also called stomach headache or “nervous bowel”. IBS is associated with gut microbial dysbiosis, bacterial and other communities of the microbiota, such as fungi, viruses, archaea, and other parasitic microorganisms. Patients with IBS show less fungal and viral diversity and increased abundance of *Candida albicans*. Therefore, novel therapeutic methods inhibitors targeting fungal pathogenic pathways, probiotic fungi, prebiotics, and fecal microbiota transplantation. Regardless of the true factors that cause irritable bowel syndrome (infection, hormones, stress or gut microbiota imbalance), changes in eating habits can have a significant impact on pain and discomfort in people suffering from the syndrome. When prescribing a diet, the overlap of this condition with certain food intolerances (lactose, fructose, carbohydrates, histamine), food allergies, and non-celiac gluten sensitivity (NCGS) should be taken into account. Recent scientific evidence indicates that a relatively restrictive elimination diet low in certain natural sugars can alleviate the feeling of bloating, reduce the amount of gas, relieve pain and other symptoms in patients with irritable bowel syndrome. In recent years, several studies have shown a significant improvement in symptoms in patients who eliminated foods rich in certain natural sugars (fermentable sugars, oligosaccharides, disaccharides, monosaccharides and polyols - the so-called FODMAP foods) from their diet, such as rye, wheat, garlic, onions, artichoke, mushroom, cauliflower, beans, chickpeas, lentils, honey, apple... Although a diet that excludes the so-called FODMAP food does not work for all patients, an increasing number of experts support its principles, at least when it comes to short-term use. However, such a diet is quite complex and must be carried out under the supervision of a doctor or nutritionist so that the diet remains nutritionally balanced. The long-term use of the FODMAP diet has not been sufficiently researched to date, and a gradual liberalization of the diet after a reduction in the intensity of symptoms is mainly advocated, especially in the light of knowledge about the influence of this diet on the diversity of the intestinal microbiota.

**IS13****Field of pediatrics and sick child in the 21st century**

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Greater picture: overpopulation is the gravest concern for well-being of planet Earth

Frame within frame: In Croatia number of newborn babies in 1961 was roughly 62 000, in 2021 it was 34 000 and declining.

Our ultimate goal: don't let our babies grow up to be sick, make them be healthy and prosperous parents and grandparents

Paths to the finish line:

Make love not war

Prevent social and emotional deprivation

As a medical professional choose the life of learning and devotion

Listen to your patient and his parents, learn about his whereabouts, sit by his bedside, do the physical exams repeatedly, use lab and diagnostic tools prudently, analyze, learn throughout the life and make yourself available whenever its necessary.

Join the fight against all forms of addiction.

Use the AI in field of medicine for the benefit of society and individual.

