



Nutrition in IBD: Diets, Supplements, and Malnutrition

Irena Karas

Unit of Clinical Nutrition, Department of Internal Medicine, University Hospital Centre Zagreb, Zagreb, Croatia

Correspondence: irena.karras@gmail.com

Slovenian journal of gastroenterology / Gastroenterolog 2025; supplement 2: 31–32

Keywords: inflammatory bowel disease, malnutrition, clinical nutrition, dietary therapy, Crohn's disease, supplements

Inflammatory bowel disease (IBD), encompassing Crohn's disease (CD) and ulcerative colitis (UC), is strongly associated with nutritional challenges ranging from malnutrition to micronutrient deficiencies. The multifactorial etiology of malnutrition in IBD includes reduced oral intake, increased metabolic demands, altered absorption, and the impact of chronic inflammation (1). Recent guidelines from the European Society for Clinical Nutrition and Metabolism (ESPEN) and the American Gastroenterological Association (AGA) emphasize nutrition as an integral component of comprehensive IBD management, complementing pharmacological therapy and addressing long-term complications such as sarcopenia and bone disease (1, 2).

DIETS IN IBD

Exclusive enteral nutrition (EEN) remains the most evidence-based intervention for pediatric CD, yet adherence in adults is limited (1, 3). The Crohn's Disease Exclusion Diet (CDED) and the CD-TREAT diet have emerged as pragmatic alternatives; while CD-TREAT mimics the EEN thus improving patient acceptance and long-term feasibility, CDED is a model of an exclusion diet combined with partial enteral nutrition (PEN) (4, 5). The low-FODMAP diet may benefit functional symptoms such as bloating and diarrhoea, though evidence for anti-inflammatory effects is limited. The specific

carbohydrate diet and Mediterranean diet have shown some promising results, but current evidence remains insufficient for formal recommendations (6). Overall, guidelines emphasize avoiding overly restrictive diets and prioritizing individualized dietary counselling (1).

SUPPLEMENTS AND MICRONUTRIENT MANAGEMENT

Patients with IBD often develop deficiencies in iron, vitamin D, vitamin B12, folate, and zinc (1,2). ESPEN recommends systematic screening and targeted supplementation, particularly in active disease and after intestinal resections (1). Intravenous iron is preferred for moderate-to-severe anemia, while vitamin D deficiency correction supports bone health and potentially modulates immune activity (1). Omega-3 fatty acids and probiotics remain controversial, with inconsistent evidence across clinical trials (2).

MALNUTRITION AND BODY COMPOSITION

Malnutrition, present in up to 65% of hospitalized IBD patients, is an independent predictor of morbidity, postoperative complications, and reduced quality of life (1). Body composition assessment, including lean body mass, is increasingly recognized

as superior to body mass index (BMI) alone (1). ESPEN recommends routine use of validated tools such as the Nutritional Risk Screening 2002 (NRS-2002), Malnutrition Universal Screening Tool (MUST) or Subjective Global Assessment. Screening should be repeated regularly during the disease course and around surgical interventions. Multidisciplinary management, including dietitians, gastroenterologists, and psychologists, is essential to optimize outcomes (1, 2).

CONCLUSION

Nutrition is not an adjunct but a cornerstone of IBD management. Evidence-based dietary strategies, timely supplementation, and systematic malnutrition screening are essential to improve disease outcomes, patient quality of life, and long-term prognosis. Personalized nutrition, guided by emerging evidence and patient preferences, will likely shape the future of IBD care.

References:

1. Bischoff SC, Bager P, Escher J, et al. ESPEN guideline on clinical nutrition in inflammatory bowel disease. *Clin Nutr.* 2023;42:352–79.
2. Hashash JG, Elkins J, Lewis JD, et al. AGA Clinical Practice Update on Diet and Nutritional Therapies in Patients With Inflammatory Bowel Disease: Expert Review. *Gastroenterology.* 2024;166:521–32.
3. Gordon H, Biancone L, Fiorino G, et al. ECCO Guidelines on Inflammatory Bowel Disease and Malignancies. *J Crohns Colitis.* 2023;17:827–54.
4. Levine A, Wine E, Assa A, et al. Crohn’s disease exclusion diet plus partial enteral nutrition induces sustained remission in a randomized controlled trial. *Gastroenterology.* 2019 Aug;157(2):440-50.e8.
5. Svolos V, Hansen R, Nichols B, et al. Treatment of Active Crohn’s Disease With an Ordinary Food-based Diet That Replicates Exclusive Enteral Nutrition. *Gastroenterology.* 2019 Apr;156(5):1354-67.e6.
6. Ghosh S, Mitchell R. Impact of nutrition on IBD: Practical considerations. *Nat Rev Gastroenterol Hepatol.* 2022;19(4):243–57.