

Low FODMAP in IBS: Update information

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FODMAP (Fermentable Oligo, Di, Monosaccharides And Polyol) is a group of fermentable carbohydrate which is incompletely absorbed in the small bowel. This group of carbohydrate includes fructans, galactans, lactose, fructose in excess of glucose, sorbitol and manitol. Availability of carbohydrate in the colon lead to increase gas production from bacterial fermentation and increase water content in the gut lumen.

IBS patients have been reported to have delayed intestinal gas transit and abnormal intestinal gas transit reflexes in response to rectal distention or intestinal nutrient infusion.

It has been reported recently that increase gas production and visceral hypersensitivity are complimentary factors for the development of bloating and gas symptoms in IBS. In addition, IBS patients were found to have more carbohydrate fermentation in the colon more than healthy volunteers as the cecal pH in IBS patients was lower than healthy volunteers. All together, it is likely that foods that produce more intestinal gas production will induced bloating and gas symptoms in IBS. Randomized control trials in IBS comparing low FODMAP diet vs. standard or typical patients' diet demonstrated that low FODMAP diet improves IBS symptoms. Two meta-analysis studies, although limited by quality of trials included, demonstrated significant benefits of low FODMAP diet on IBS symptoms including abdominal pain, bloating and over all IBS symptoms compared to control diets. However, a recent multicenter RCT comparing low FODMAP diet and traditional dietary advice (emphasis on when and how to eat rather than on what food to ingest) demonstrated similar improvement of IBS symptoms. The authors suggest the low FODMAP and traditional dietary advice may be complimentary for IBS patients.

Substantial numbers of high FODMAP foods are fermentable carbohydrate with prebiotic profiles. This group of carbohydrate has been found to associate with increase good intestinal bacteria (probiotic) and decrease consumption of this carbohydrate may affect good intestinal bacteria in addition to the risk of some nutrients deficiency such as calcium. A RCT study in Australia demonstrated low FODMAP diet decrease bacterial abundance for butyrate producing bacteria, prebiotic and mucous degrading bacteria compared to habitual and standard AU diet.

In conclusion, low FODMAP diet is an emerging treatment modality for IBS patients. Available research study results suggest the benefit of low FODMAP diet. However, its benefit in relative to other dietary treatment modalities and its long term effects on humans health have not been clearly known and need further research studies.