

# ADVANCES IN IBS

Current Developments in the Treatment of Irritable Bowel Syndrome

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## Diet Options for IBS Other Than the Low-FODMAP Diet



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### G&H What do recent guidelines recommend regarding dietary interventions for patients with irritable bowel syndrome?

**MS** Most current dietary guidelines recommend that patients with irritable bowel syndrome (IBS) first try what has been called traditional IBS dietary advice, which can be found in the National Institute for Health and Care Excellence guidelines. These focus more on how the patient eats rather than on what different dietary items to exclude. In general, patients should have regular meals and smaller, more frequent meals rather than larger meals infrequently; they should exclude some offending dietary items such as high-fat meals and large amounts of fiber and reduce gas-producing food items such as beans; and they should focus on maintaining healthy eating habits. Traditional IBS dietary advice can be given by nurse practitioners, gastroenterologists, primary care physicians, and so forth, without the need to involve a dietitian or a nutritionist. If that fails, then more restrictive diets can be tried. Most guidelines recommend trying a diet low in fermentable oligo-, di-, monosaccharides, and polyols (FODMAPs) often with the help of a dietitian or a nutritionist who supports the patient in following a more cumbersome and potentially more harmful diet.

Beyond the low-FODMAP diet (LFD), there are looser recommendations that for certain patients a gluten-free diet or a low-carbohydrate diet (ie, a diet low in carbohydrates and high in fat and high in protein)

may be tried. Some studies support testing a starch- or sucrose-free diet or sucrose-reduced diet. However, these other diets are less evidence based, and recommendations are not clear on how they should be used. Much more evidence is available for the LFD than for the other diets.

### G&H Other than the LFD, which diets have shown the most promise in IBS?

**MS** Of the ones I mentioned, the gluten-free diet probably has the most evidence in IBS. Some IBS studies suggest that there might be some benefits of a gluten-free or wheat-free diet (sometimes the terms are used interchangeably). Most of these diets focus on reducing or avoiding wheat. In contrast to patients with celiac disease who should have a gluten-free diet, in patients with IBS, a reduced-gluten diet is more appropriate. The mechanism behind the effect in IBS is a bit controversial. Some claim that patient response may be related to reduction of the FODMAP content of the wheat, the fructans (the carbohydrate content of the wheat). Perhaps the wheat-free diet can be considered a variant of the LFD that is recommended for IBS patients.

Other less frequently tested diets with some emerging evidence to support their use are low-carbohydrate diets, which focus on reducing all carbohydrates not only the FODMAP-rich foods. If all carbohydrates are lowered, then by default the fat and protein content of food must be increased. This type of diet is popular among patients

who want to reduce weight, for instance, and studies with preliminary results show that it may be beneficial for some IBS patients. However, the evidence is much less strong for the low-carbohydrate diet than for the LFD.

The starch- and sucrose-reduced diet can be viewed as a variant of the low-carbohydrate diet and LFD because it also reduces certain carbohydrates. Swedish studies, not from our group but from another group, have shown that the starch- and sucrose-reduced diet has been quite beneficial for patients with IBS. These studies were relatively small and thus not as well controlled as for the LFD. Recently, a study found that use of the Mediterranean-style diet, which is considered healthy in general, compared with continuing a diet as usual, reduced symptoms in patients with IBS. From a general health perspective, it may be tempting to use a Mediterranean-style diet

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instead of other diets that restrict certain healthy dietary elements. The LFD removes many healthy ingredients. If following the Mediterranean-style diet can help IBS patients, then that may also have benefit from a general health perspective for that group. This is an interesting approach that needs to be explored in more detail.

When I meet patients, in general, I try to encourage them to eat a healthy diet first and see whether that helps, as part of the traditional IBS dietary advice in at least some respects. Dietary advice might swing in that direction in the future if some of the healthier diets being studied prove to be beneficial for patients. Guidelines might recommend promoting these diets first before moving into the more restrictive diets, which have some potential concerns about health benefits in the long run.

#### **G&H** What are the main advantages and disadvantages of diets other than the LFD?

**MS** Being less restrictive is an advantage of some of the other diets (eg, the Mediterranean-style diet). The main disadvantage of the other diets is that they are less well studied in IBS. That is the problem with recommending them to patients. Not much is known about the disadvantages with these diets in IBS in general. Some of the diets other than the LFD are also quite restrictive, which may be an added disadvantage of those diets.

#### **G&H** What have recent studies revealed about the gluten-free diet in IBS, and which patients may benefit from it?

**MS** My understanding of the literature is that there are no clear predictors for a gluten-free diet in IBS that have been demonstrated in studies. In a small mechanistic study that my colleagues and I conducted, we found that identifying clear predictors was quite difficult. In clinical practice, if patients say they have symptoms when eating a wheat-rich diet, then that is a clinical indicator for the physician to recommend trying food without wheat for a period to see whether this dietary adjustment can be beneficial. Patients do not usually have to stop eating wheat totally. They may reduce it, like how patients with lactose maldigestion reduce the lactose content of their food but whose diets do not need to be 100% free of lactose. This is different from patients with celiac disease who should maintain a gluten-free diet. To summarize, there are a limited number of studies so far to support the gluten-free diet in IBS.

#### **G&H** What assessments may be helpful before considering a trial of a dietary intervention?

**MS** Asking whether patients can identify any food triggers is, of course, important. If they feel worse after eating certain meals or foods, then the physician or clinician can work with them on identifying which food components potentially to restrict. Helping patients try to identify triggers is mostly done by a dietitian who can help them maybe have a less restrictive diet by removing only a few dietary triggers.

It is also important for practitioners to look for warning signals, whether there are any signs of severe food avoidance and restriction already, before starting a dietary intervention. Patients who have disordered eating should not be put on a restrictive diet. Signs of malnutrition, for instance, are warning signals to start with a more restrictive diet. These types of signals are important when deciding on the type of dietary interventions. Some of the patients who I always try to send to a dietitian are patients who have a very restrictive eating pattern. The strategy then is not to restrict the eating pattern even more, but to teach these patients how to eat again, by introducing food items. Patient eating patterns should be addressed before embarking on different dietary interventions.

#### **G&H** What factors might predict a poor clinical response to an LFD?

**MS** Studies have demonstrated some predictors for a good or a poor response to an LFD; however, the results are somewhat contradictory. The general theme is that poor

response might be related to the microbes in the gut, and even more so, what the microbes produce, the metabolites that can be measured. A recent study from Dr Kevin Whelan's group demonstrated that the metabolites produced by the microbes are more important than which microbes are there. These assessments are very cumbersome and expensive; for this reason, they are not typically for clinical use. In the future, the key factor may be assessing what happens in the gut when the patient eats, and that can then be used as a predictor for treatment response to the LFD.

There are some indications that patients with more severe gastrointestinal symptoms may do better with an LFD. My colleagues and I noted that indication in a small trial; however, again, this needs to be repeated in larger trials. In another small trial, we found that patients with more psychological symptoms responded less favorably to an LFD, although probably a combination of psychological, gastrointestinal, nutritional, and metabolic factors is of importance. In the clinical trial, predictors may be identified; however, it is difficult in the clinical setting to identify the patient who will respond vs the patient who will not respond.

### G&H When should nonresponders to an LFD be switched to another diet or treatment?

**MS** Normally, the diet is tested for 4 to 6 weeks. Patients who respond are instructed on how to reintroduce the FODMAPs up to the tolerance level of symptoms. This allows patients to have a richer diet than a very restrictive diet. For patients who do not respond within 4 to 6 weeks in any way, the diet is discontinued. Because a diet low in FODMAPs is quite cumbersome and restrictive, it is not tested for longer. In addition, there is a lack of evidence suggesting that testing the diet for longer than 4 to 6 weeks is useful.

### G&H Where do you see the field of diet therapies for IBS going in the coming years? What are the key priorities for research and clinical practice?

**MS** I hope that the field of diet therapies in IBS is heading in the direction of more personalized diets. A personalized approach would be more cumbersome in clinical practice, of course, because of the need to address potentially some of the factors that would predict the response. However, if this approach were possible, gastroenterologists would not have to put all patients on very restrictive diets but maybe select these diets for a few patients and have less cumbersome diets or treatment options for other patients. In general, my hope for the future not only with dietary therapy but also with other therapies is that practitioners

are able to personalize diets and therapies much more than is done today.

Moving in the direction toward less restrictive diets would also be ideal. If the Mediterranean-style diet or other healthy diets may prove beneficial, that would be very good for the IBS field. It would be better to help patients by treating their IBS with an overall healthy diet rather than with a more restrictive diet. Gastroenterologists should treat not only IBS, but the entire individual. A diet that reduces IBS symptoms but at the same time causes other risk factors to develop does not help patients.

A key priority for research and clinical practice is to have more dietitians, both clinical dietitians helping patients with IBS and academic dietitians and nutritionists studying IBS. Although gastroenterologists can learn about nutrition, it would be better to have more researchers and clinicians totally focused on nutrition and dietary aspects in the future.

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