

## Frequently Asked Questions – Diet and Nutrition

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### Diet and nutrition in IBD

In order to maintain good health, a well-balanced and nutritious diet is essential for absolutely everyone, but is even more so for those with IBD, which can interfere with the absorption of nutrients from food and increase energy demands on the body. A good diet can help you cope better with IBD by building up your body's reserves of energy and essential nutrients.

To understand the importance of diet and nutrition in the management of IBD, it's useful to have some knowledge of the function of some major parts of the GI tract.

The main processes of digestion and absorption take place in the small intestine. Most of the breakdown of food occurs in the first segment of the small intestine, the duodenum. The middle segment, the jejunum, digests carbohydrates. The final segment, the ileum, breaks down fats and absorbs vitamin B12 and bile salts. Any remaining waste matter moves into the large intestine (colon) where water is absorbed back into the bloodstream. The leftover waste, which includes fibre and bacteria, is formed into faeces and expelled through the anus.

### Why Is Diet So Important In Crohn's And Colitis?

Food is fuel for the body. Eating a well-balanced diet that includes items from all major food groups (see next page) provides all the essential nutrients or building blocks that the body requires each day to grow, repair damage, generate energy, and protect itself from illness.

Those with IBD are at risk of becoming malnourished, especially those with Crohn's disease in the small intestine. The main reasons for this are:

- Loss of appetite due to nausea, abdominal pain, or altered taste sensations, leading to inadequate food intake.
- Increased need for nutrients and energy by the body because of chronic inflammation. This is especially true during active stages of the disease.
- Poor digestion and malabsorption of dietary protein, fat, carbohydrates, water, and various vitamins and minerals. Those with Crohn's disease of the small intestine, or those who have had all or parts of their small intestine surgically removed, might be at higher risk of malabsorption.

Diet and good nutrition play a key role in managing your IBD as they are important for restoring the body to health. A well-balanced diet can help you through episodes of active disease, keeping you in much better condition. Good nutrition also increases the chances of a better response to medications or a better outcome if surgery is required to remove part of the intestine.

Younger people who develop Crohn's disease or ulcerative colitis before the onset of puberty might experience a delay in growth. To some extent, this is related to the presence of chronic disease in the body, but is most often the result of inadequate food intake. Good nutrition and adequate energy intake for one's age and gender are therefore highly important in children and adolescents with IBD.

### What Is A Good Diet?

A good diet is one that contains items from all major food groups. Eating a variety of foods from each of these food groups every day will help ensure that you're meeting all your needs for energy and essential nutrients such as carbohydrates, protein, and fats, as well as vitamins and minerals.

#### Breads and cereals

- Foods in this group include bread, breakfast cereals, pasta, rice, cracker biscuits, muffins, and crumpets. These are all good sources of fibre—especially the wholemeal and wholegrain varieties—and resistant starch. Resistant starch is starch that is not digested in the small intestine, but passes into the large intestine where it fuels bacterial fermentation. The products of this fermentation provide fuel for the gut wall lining and help maintain the overall health of the large intestine.
- Breads and cereals provide valuable energy for the body in the form of carbohydrates, and also supply protein, vitamins (B-group and folic acid), and minerals (zinc and iron).

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### Fruits and vegetables

- Starchy vegetables such as potato and corn are good sources of carbohydrate. All other green, yellow, orange, white and red vegetables are good sources of many vitamins and minerals.
- Fruits contain carbohydrates and are good sources of energy, fibre, and anti-oxidants. Fruits also contain many essential vitamins and minerals such as folic acid, vitamins A and C, iron, magnesium, and vitamin B6.

### Milk and milk products

- This group includes dairy products such as milk, yoghurt, and cheese, as well as calcium-fortified soy milk and soy yoghurt. These foods are an important source of calcium and also provide energy, protein, and zinc.
- Calcium is essential to bone health and is especially important for those who require corticosteroid treatment. Meeting your daily calcium needs would be very difficult without this food group.

### Meat and meat alternatives

- This group includes lean meat, poultry, fish, eggs, nuts, tofu, and legumes (beans, chickpeas, lentils). These foods are an important source of protein and energy.
- Lean red meat provides an excellent source of iron and zinc. Including lean red meat in your diet three to four times each week will help you to meet your iron requirements.
- Meat, poultry, fish, and eggs also contain vitamin B12, which might be poorly absorbed in people who have Crohn's disease in the last (terminal) part of the ileum.

### Fats and oils

- Polyunsaturated or monosaturated vegetable oils and margarine are important sources of energy. They also contain many essential fat-soluble vitamins such as vitamins A, D and E. These are often called good fats because they have no adverse effect on cholesterol levels. Canola margarine, canola, and olive oil are recommended.
- It is important to distinguish polyunsaturated or monosaturated fats from saturated fats, which are mainly animal fats such as butter, meat drippings, ghee, and palm oil. Saturated fats have no known benefits to human health and increase cholesterol levels.

### Other foods

- Foods that are high in sugar such as soft drinks, lollies, honey, and jam tend to be recommended only in small quantities. They are sources of instant energy and can be useful to those who have experienced significant weight loss and are trying to regain weight. On the other hand, those who are well and are gaining too much weight should avoid these extra-energy foods.

### **Can A Good Diet Prevent Or Cure Crohn's And Colitis?**

To put it simply: diet is not the cause of IBD nor is it the cure.

There is little evidence to suggest that dietary factors cause IBD. Likewise, it is not possible to make your condition go away permanently by adding or eliminating certain foods from your diet, or by eating only particular types of food. Some find that a particular food aggravates their symptoms; eliminating this food can make a positive difference. For most though, the key to managing their condition is in eating a well-balanced diet that includes items from all major food groups. Good nutrition improves overall health status, supports the healing process, and can enhance the response to medications. A poor diet makes it more difficult for the body to counteract the effects of IBD.

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### Can 'Prebiotics' And 'Probiotics' Help In IBD?

A large number of micro-organisms or bacteria live in the large intestine: some are good, others not so good. Depending on which bacteria predominate in the large intestine of a person, the health of the intestine can be affected positively or negatively.

Although there is no convincing evidence to suggest that intestinal bacteria cause IBD, it is thought that they might be contributing to the inflammatory process among those who already have IBD. At the moment, research is looking into whether changing the type and/or the level of various bacteria in the large intestine can help in the treatment of IBD.

#### Prebiotics

Prebiotics are non-digestible food ingredients (fibre) such as non-starch polysaccharides (a type of carbohydrate) and resistant starch. They provide nutrients that stimulate the growth or activity of 'good' bacteria in the GI tract. Examples of sources of prebiotics are stalks and leaves of vegetables, outer coverings of seeds and fruits, bread, potatoes, and bananas. Bacteria in the gut use this non-digestible food matter to produce short-chain fatty acids (SCFA) such as acetate, butyrate, and propionate. These SCFA have a number of beneficial effects:

- they are used as fuel by the colon wall, liver, heart, and lungs
- they increase the absorption of electrolytes and fluid, reducing the risk of diarrhoea
- they increase the efficiency of digestion by slowing down the rate at which food moves through the small intestine.

Butyrate in particular appears to be especially useful as it is the preferred fuel of colon cells and helps to maintain their integrity. Clinical studies in patients with ulcerative colitis have shown that infusion with butyrate can result in prompt healing of the lining of the large intestine.

#### Probiotics

Probiotics are food supplements containing 'friendly' bacteria that change the population of bacteria in the large intestine from 'bad' to 'good.' Probiotics are available as yoghurt or yoghurt drinks and in capsule or powder formulations. Research suggests that probiotics might play a role in maintaining remission among those with IBD by acting in some important ways:

- they counteract dysfunction of the immune system by preventing bad bacteria from populating the intestinal wall
- they prevent infection by ensuring that the intestinal wall remains healthy
- they improve the production of healthy by-products, such as butyrate, in the large intestine.

Prebiotics and probiotics have different, but complementary, mechanisms. Increasing the amount of non-starch polysaccharides and resistant starch in your diet is an easy and inexpensive way to improve the health of your large intestine. Adding yoghurt to your diet is not only easy to do, it also provides an excellent source of calcium and plenty of 'good bugs' for your intestine.

A word of caution, however: not all probiotics are created equally. You'll need to consider the dose as well as the strain of probiotic to determine if the therapy will be of benefit to you. Speak to your clinical team to determine the best course of action.

### Do I Need To Take Vitamin And Mineral Supplements?

Because vitamin and mineral deficiencies are relatively common among those with IBD, taking a standard multivitamin and mineral tablet each day might be beneficial. The need for more specific supplements depends on the extent and location of disease. Your treating specialist will advise you of any specific requirements you might have.

### Should I See A Dietitian?

A dietitian is a vital member of your clinical team and will help you work out a dietary plan that is just right for you. In Australia, Accredited Practising Dietitians (APDs) must be members of the Dietitians' Association of Australia (DAA). You can locate a dietitian near you by visiting the DAA website [www.daa.asn.au](http://daa.asn.au). Within the website, you can find an Accredited Practising Dietitian on the link <http://daa.asn.au/for-the-public/find-an-apd>