

IBD Diet Booklet

The Role of Diet in Moderate to Severe Inflammatory Bowel Disease (IBD)

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What is IBD: Crohn's disease and ulcerative colitis?

Inflammatory bowel disease (IBD) describes auto-inflammatory conditions of the gastrointestinal tract. The two main types of IBD are Crohn's disease (CD) and ulcerative colitis (UC).

- CD can affect any part of the gastrointestinal tract from mouth to anus, but most commonly affects the small and/or large intestine, and may involve the whole thickness of the gastrointestinal wall.
- UC is limited to the large intestine (colon or large bowel), will start at the rectum moving backwards through the colon and will only affect the mucosa (bowel lining).

IBD may be classified as mild, moderate or severe disease depending on age at diagnosis, location and behaviour of inflammation in CD, and the extent (spread) and severity of inflammation for UC. The nature of both CD and UC may include times of active disease (uncontrolled inflammation, also known as a flare) and remission (stable disease, no symptoms).

The IBD diet booklet will address the relevance of diet for mild to moderate IBD, meaning people with IBD who can be managed in the community without requiring hospital admission. The four areas of focus in this resource will include the role of diet for:

1. Nutritional adequacy

2. Complications of disease

3. Surgical considerations; and

4. Short bowel syndrome.

Treatment of IBD is aimed at achieving clinical and endoscopic remission, meaning good symptom control, as well as healing the intestinal mucosa and preventing flare-ups. There are many different types of medications that are used to achieve remission, but maintenance of remission is also very important. Your treating doctor will guide you on your treatment plan and discuss with you the need for therapy and its safety. It is very important that you take the medications prescribed by your doctor, even if you are feeling well, to ensure that you achieve and maintain remission and do not relapse.

1. Nutritional adequacy in IBD

Why is nutritional state important?

Achieving and maintaining good nutrition is important for good health, so that the body can live, grow and function well. Malnutrition occurs if there is an imbalance in nutrients, either not enough or too much. Malnutrition is not a trivial problem and is associated with fatigue, reduced quality of life, depression and may even weaken response to medications. Furthermore, malnourished patients are more likely to become sick, have slower rates of recovery and increased risk of complications.

The two types of malnutrition are under-nutrition and over-nutrition. Undernutrition is more common in patients with IBD than the general population, particularly patients with moderate to severe active disease. This is usually due to a combination of poor dietary intake associated with feeling unwell, increased nutritional requirements resulting from inflammation and, in some, impairment of nutrient absorption, particularly if the small bowel is affected. Body mass index (BMI or weight to height ratio) is not a good indicator for undernutrition by itself. Unintentional weight loss of more than 5% of body weight within three-month period is one sign of undernutrition and the impact is likely to be worse if you are already underweight (low BMI) and have active disease. Furthermore, your nutritional requirements will increase with active disease and/or recent surgery, so there is a higher risk of losing weight in these settings than when you are well.

Some components of body weight include muscle mass and fat mass, which have different roles in the body. A loss of muscle mass reflects loss of key proteins that are involved in hormone regulation, immunity and maintenance of your organs. Muscle is important for movement and metabolism (conversion of food to energy), so reduced muscle mass and function will increase the risk of being unwell and staying unwell for longer. Fat is a way to store energy for the body, so a loss of fat mass may mean that there is not enough support for the role of protein. Many patients with IBD will have reduced muscle mass and strength, but not necessarily fat mass or total weight.

Malnutrition may be suggested by various tests that are completed by your treating doctor, but are also indicated by visual assessment, i.e., if it looks like you have altered muscle mass and/or total weight. **If you are malnourished, it is recommended that you see a dietitian**, who will guide you on how to replete specific nutrients and achieve good nutritional status.

Under-nutrition – describes a loss or imbalance in energy (kilojoules or calories) and/or nutrients, which will usually result in weight loss with vitamin and mineral deficiencies. However, vitamin and mineral deficiencies can be present even if the weight and muscle mass are not reduced. Under-nutrition is treated with an increased intake of energy and/or protein and repletion of any vitamin and mineral deficiencies.

Over-nutrition (overweight and obesity) - is now seen in an increasing proportion of people with IBD, as it is in the general community. The relevance of over-nutrition specifically in IBD is unknown, but there is a concept that fat around the intestines might drive intestinal inflammation in patients with CD. It is important to note that obesity does not exclude malnutrition and the two can be present together. It is important that adequate intake of protein, vitamins and minerals is maintained if weight management strategies to reduce total energy are applied.

Below are some tips on how to increase energy and protein in your diet if you are under-nourished:

- **Eat frequently through the day**, even if you are not hungry – including lots of meals and snacks
- **Try not to fill up on low energy drinks** like tea or water – choose milk-based drinks or smoothies
- **Add fat to your meals** (e.g., butter, margarine, olive oil, salad dressings, mayonnaises, cream and cheese)
- **Include protein-rich foods** in preference to other foods, such as meat/meat alternatives, eggs, dairy and nuts
- **A nutritional supplement** that contains energy, protein and essential vitamin and minerals may be needed if diet alone is not enough to treat under-nutrition



Vitamins and minerals of importance in IBD

Specific vitamin and mineral deficiencies may occur if you are malnourished, but may also exist if your weight is stable. This may be due to impaired absorption or increased losses of specific nutrients in active disease. For example, iron is not well absorbed by the body when inflammation is active, so iron levels may be low even if you have not lost weight or muscle. Below are descriptions of the most common deficiencies seen in IBD. Deficiencies in other vitamins and minerals are less common.

Iron is involved in the transport of oxygen around the body and also important for producing energy, supporting immunity and fighting infection. Hence, low iron levels in the body can cause anaemia (reduced haemoglobin levels) and fatigue. People with active IBD are at greater risk of iron deficiency because inflammation turns off the ability to absorb iron from the intestine, can cause blood losses at the site of inflammation (and therefore loss of iron in blood) and can reduce appetite. Other risk factors for iron deficiency are being vegetarian or vegan because meat is a particularly rich source of iron and losing iron through menstrual blood loss in menstruating women.

There are two different sources of iron in food: haem iron and non-haem iron. Haem iron is found in animal flesh and is absorbed up to four times more easily than non-haem iron.

Sources of haem iron

- **Meat**
– **beef, lamb, pork, veal**
(the redder the meat, the higher the iron content)
- **Offal**
– **liver, kidney, liverwurst, pate**
- **Poultry**
– **chicken, turkey, duck**
- **Fish and shellfish**



Sources of non-haem iron

- **Eggs**
- **Green leafy vegetables**
(silverbeet, spinach, Brussels sprouts, broccoli)
- **Nuts**
- **Legumes**
(lentils, baked beans)
- **Fortified breakfast cereals and products**



Vitamin C can help the body absorb the non-haem iron. Vitamin C is found in many fruits and vegetables. On the contrary, calcium reduces absorption of non-haem iron, so separation of calcium-rich foods and sources of non-haem iron may be advised.

Deficiency and toxicity: If you are iron deficient, it may be recommended that you replete your iron stores using food (particularly those rich in haem iron), take an oral supplement (although absorption might be limited and it can further upset your bowels) or have an intravenous iron infusion as prescribed by your doctor. An iron infusion is usually favourable as it bypasses the gut. Iron toxicity (too much iron) is uncommon unless you have a certain iron overload disorder.

Vitamin D is commonly reduced in people with inflammatory conditions. Vitamin D has an important role in the regulation of calcium and bone health, and may even be helpful in reducing inflammation. The body makes vitamin D from sunlight exposure, but some milks and margarines are now also fortified with vitamin D.

Deficiency and toxicity: If you are vitamin D deficient, it is difficult to replete your stores without the use of oral supplements. Vitamin D toxicity occurs only if oral supplementation is too much or for too long. Your treating doctor and dietitian will guide you on the suitable dose that is required to treat the deficiency without causing toxicity.

Vitamin B12 is important for the normal functioning of the brain and nervous system, and for the efficient production of red blood cells. Deficiency can be seen in people with IBD, particularly in those with small bowel disease or removal of a portion of the small bowel and can result in fatigue, permanent nerve damage and poor memory. Vitamin B12 is found exclusively in animal-derived products including meat, milk and eggs, so vegans may need supplementation.

Deficiency and toxicity: If the reason for vitamin B12 deficiency is that you cannot absorb the vitamin because of small bowel disease, the injection-form of vitamin B12 is more effective in treating deficiency. If it is because you do not eat animal-derived products, then oral supplementation with vitamin B12 is effective. Because vitamin B12 is a water-soluble vitamin, excessive amounts are usually easily excreted, so toxicity is rare.

Zinc is an essential component for a number of enzymes required for digestion of carbohydrates, fats and proteins. Zinc plays an important role in immunity, wound healing, blood clotting and thyroid function. People with chronic diarrhoea, including some people with IBD, are at risk of zinc deficiency because zinc is lost in the diarrhoea. Food sources of zinc include animal products like meat, poultry, fish and cheese. Zinc is better absorbed from these animal products than plant foods (e.g., legumes, wholegrains, miso, tofu), so vegetarians and vegans are also at risk of deficiency.

Deficiency and toxicity: Increased food sources and/or oral supplementation of zinc is recommended if you are zinc deficient. Toxicity is uncommon, but too much zinc can contribute to diarrhoea as well as nausea and vomiting.

Folate is important in the body for cell growth and its deficiency can lead to anaemia and fatigue. Folate deficiency is not as common as other micronutrients (because it is often added to foods), but the risk in people with IBD is increased if restrictive diets are used, or if they are receiving therapy with sulfasalazine (can reduced absorption) or methotrexate (can deplete folate from the body). Folate is commonly found in wholegrains, leafy green vegetables and fortified breakfast cereals.

Deficiency and toxicity: Oral folate supplementation is routinely prescribed if you start methotrexate and may be used with sulfasalazine. Folate toxicity is low risk, but ensure you are taking the dose that is recommended by your treating doctor.

Calcium is an essential mineral needed to build and maintain strong bones and teeth, and to prevent osteopenia or osteoporosis (decreased bone density). It is particularly important in people with IBD because inflammation affects bone formation and active disease can affect absorption of calcium. Additionally, use of corticosteroids can result in increased bone loss. The richest sources of calcium in food are from dairy and fish with edible bones (e.g., sardines and canned salmon), and from dairy alternatives that have been fortified with calcium. It is recommended that we all include 3-4 serves of dairy (or alternatives) daily to meet requirements. One serve of dairy includes 1 cup milk, 1 tub yoghurt or 2 slices cheese.

Deficiency and toxicity: Deficiencies may be indicated through blood calcium levels, but may also be suggested if your bone density is reduced. Oral calcium supplements can be used if calcium deficiency is suspected or if dietary calcium intake is low. This commonly occurs in people who restrict their intake of dairy without using suitable replacements (e.g., calcium-fortified soy milk).

Excess calcium supplementation may increase risk of heart disease, so dietary sources are always preferred unless specifically recommended by your treating doctor.

Magnesium has a role in the body's energy production, and is also important for calcium regulation and bone health. People with chronic or severe diarrhoea, as might occur in some people with IBD, will have increased magnesium loss. Dietary sources of magnesium include spices, nuts, leafy green vegetables (such as spinach), soybean and cocoa.

Deficiency and toxicity: Deficiency in magnesium due to severe diarrhoea is indicated through blood markers and can be replaced with oral supplements. However, it is important to note that magnesium supplementation can also act as a laxative and induce diarrhoea. In some cases, intravenous magnesium may be given to avoid this side effect.

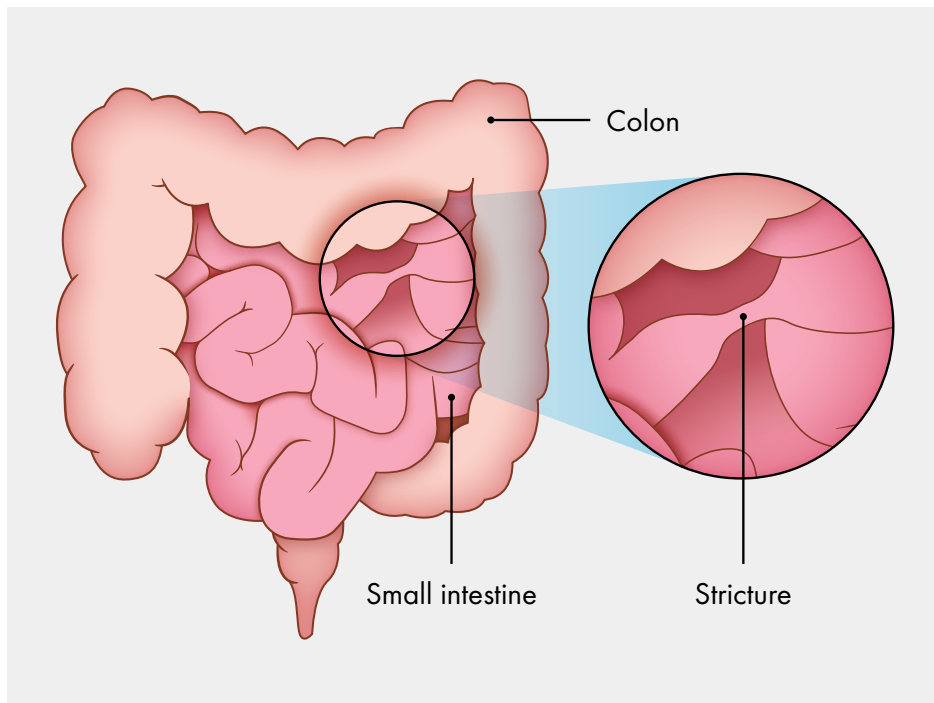


2. Complications of IBD

If active disease is severe and/or ongoing, complications of the inflammation may result. Below are some common complications of active IBD and how diet may be modified to treat the complication:

Narrowing (stricture or stenosis) of the bowel

Strictures or stenosis refers to narrowing of the intestine. Factors that contribute to a stricture include swelling that occurs in the wall of the intestine when actively inflamed, and scarring (fibrosis) and muscle thickening in the wall as part of the ongoing attempts by the body to heal the bowel. Because CD affects the entire thickness of bowel wall, strictures are much more common in CD than in UC. Such narrowing of the intestinal lumen (i.e., the inside space of the bowel) causes problems if it partly or completely blocks passage of food or stool through the gut. This is demonstrated in the Figure below. Because the small intestine is narrower than the large intestine, strictures cause problems more often in the small intestine. If the flow of contents through a stricture is completely blocked, it leads to a bowel obstruction.



Bowel obstruction: A bowel obstruction will typically present as abdominal pain and vomiting, often with constipation or not having bowel actions. An obstruction may be treated medically, but if severe, requires surgery. Your treating doctor will advise you of your risk of bowel obstruction. If you are at risk of bowel obstruction due to strictures or have already had a bowel obstruction, it may be advised that you follow a modified fibre, low fibre or low residue diet, which will reduce the bulk of food passing through the gut. This may be applied temporarily, if the stricture is due to inflammation that may be treated, or long-term if the stricture cannot be treated. **Applying a reduced fibre diet must be done in conjunction with a dietitian** to ensure that you are applying the right diet to the right degree and you do not compromise your nutrition.

Different degrees of restriction may be recommended:

- **A modified fibre diet** will require restriction of foods high only in insoluble fibre, which refers to the outer husk of grains, fruit and vegetables that does not dissolve in water and contribute to food bulk through the gut
- **A low fibre diet** will further reduce soluble fibre, which is the gel-like part of grains, fruit and vegetables that will dissolve in and hold water
- **A low residue diet** will restrict all fibre as well as non-fibre food components that will contribute to food bulk, such as whole pieces of meat. Below is a table that describes foods that are restricted on a modified fibre, low fibre and low residue diet.



Examples of foods restricted on modified fibre, low fibre and low residue diets (not complete list)

Food group	Foods suitable on low residue or low fibre diet	Additional foods suitable on modified fibre diet	Foods to avoid
Grains	<ul style="list-style-type: none"> • White bread • Refined breakfast cereals (e.g., Rice Bubbles, Corn Flakes) • Well-cooked white rice 	<ul style="list-style-type: none"> • Wholemeal bread • Porridge • Pasta 	<ul style="list-style-type: none"> • Wholegrain bread • Bran-based cereal • Wholegrains (e.g., barley or quinoa) • Brown rice
Vegetables	<ul style="list-style-type: none"> • Peeled & well-cooked or mashed vegetables • Blended soup • Strained vegetables juices 	<ul style="list-style-type: none"> • Medium-soft cooked whole vegetables 	<ul style="list-style-type: none"> • Raw vegetables, such as salads • Fibrous vegetables (e.g., celery, peas, corn) • Firm-cooked vegetables (e.g., stir-fry)
Fruit	<ul style="list-style-type: none"> • Strained juices and smoothies 	<ul style="list-style-type: none"> • Banana • Fresh fruit • Stewed fruit • Packaged fruit 	<ul style="list-style-type: none"> • Dried fruit • Visible edible seeds (e.g., passionfruit) • Fibrous fruit (e.g., pineapple) • Edible peel (e.g., apple peel)
Meat/alternatives	<ul style="list-style-type: none"> • Minced meat • Tofu • Eggs • Flaky fish • Whole pieces of meat (e.g., steak)* 	<ul style="list-style-type: none"> • Pureed legumes (e.g., refried beans or pureed lentil soup) 	<ul style="list-style-type: none"> • Meat casings (e.g., sausages, manufactured meats) • Whole nuts & seeds • Legumes (e.g., baked beans or whole lentils)
Dairy/alternatives	<ul style="list-style-type: none"> • All milk, yoghurt, cheese, ice cream 		<ul style="list-style-type: none"> • Chunks in yoghurt, (e.g., passionfruit)
Miscellaneous	<ul style="list-style-type: none"> • Sugar, boiled lollies, chocolate, fats and most spreads 		<ul style="list-style-type: none"> • Jubes, popcorn, chocolate containing fruit, nuts & coconut, seeded mustard, jam with seeds

*not suitable on low residue diet, only low fibre diet

Bile acid diarrhoea: Bile acids are produced in the liver and released in the beginning of the small intestine, where they help with the absorption of fats. Most bile acids are then reabsorbed in the ileum (lower part of the small intestine) and recycled back to the liver. A small amount normally does not get reabsorbed. Hence, a small amount of bile acid enters the large intestine where it brings more water in to the bowel. The amount is greater in some people and this can cause 'bile acid diarrhoea'. In people with CD that affects the ileum or if some of the ileum has been surgically removed, excess bile acids may enter the colon and contribute to diarrhoea. There is no dietary ways that have been developed to deal with this. However, there are medications that bind the excess bile acids that can be effective in reducing symptoms of diarrhoea.

Fat malabsorption: Pancreatic exocrine insufficiency (PEI) is a condition occurring commonly in both CD and UC, which can occur as a consequence of chronic pancreatitis (cause usually not known) or for unknown reasons. PEI describes a reduced release of enzymes from the pancreas into the intestines. These enzymes are critical in digesting (breaking down) fats in particular. If there is a shortage of these enzymes, excess amounts of fat in the stool will cause diarrhoea or steatorrhea (fatty stools). This may be a problem, because it not only induces symptoms, but may also increase risk of malnutrition and impair absorption of fat-soluble vitamins (vitamin A, D, E and K). If you have PEI, avoiding fats is not the answer because fat is our most concentrated source of energy, so a low fat diet is likely to lead to inadequate intake of total energy and specific vitamins, which will lead to malnutrition and associated problems (discussed earlier). In PEI, the enzymes can be easily replaced with a pancreatic enzyme replacement medication. Dietary management of PEI is centred around matching fat intake with correct dosage and timing of this enzyme, which can be guided by a dietitian.

Kidney stones: Kidney stones are deposits that form in the kidney and can block the flow of urine and cause pain and sometimes kidney infection. Kidney stones are common in the general population. There are different types of stones and how they are prevented depends upon the type of stone. If you have kidney stones, it is wise to consult your doctor and dietitian about what dietary approach you should take. However, the formation of stones is more common in concentrated urine, meaning that dehydration should be avoided by ensuring adequate fluid intake. One common type of stone contains oxalate and is more common in people with CD. If oxalate stones occur, increased dietary calcium intake is often advised so that the calcium binds the oxalate in the bowel and prevents it from being absorbed in to the circulation. Occasionally a low oxalate diet may be recommended, as guided by a dietitian. Oxalate is found in concentrated forms in nuts and nut butters, cocoa, rhubarb, beetroot, spinach, berries and soy products. Too much vitamin C can contribute to increased oxalate concentrations in the urine, so it is usually advised to avoid taking vitamin C containing supplements.

Perianal Crohn's disease

In perianal CD, inflammation occurs around the anus and can cause abscesses (collections of pus in the tissues) and/or the development of a fistula (an unnatural connection between the intestines and surrounding tissue, such as skin near the anus, bladder or vagina). Treatment includes surgical drainage of the abscess, antibiotics and biological drugs. There is no specific dietary therapy for perianal CD, but maintaining nutritional adequacy is important for all the reasons given above.

Other complications

CD can lead to abscesses and fistulas at sites other than the perianal area. There is no specific dietary therapy for these complications.

Both CD and UC may also impact other parts of the body and cause complications. These include problem in the skin, joints, eyes, liver and bones. These complications may lead to increased risk of malnutrition but there are no specific diet to treat them. Your treating doctor will discuss any diagnoses and treatments and whether a dietitian needs to be involved if these organs are affected.



3. Surgical considerations

If active disease is severe and/or ongoing, surgery may be required. Some of the surgeries below may be needed:

Bowel resection: This means that a section of the small and/or large intestine is removed (resected).

Stoma: Sometimes after a bowel resection, the intestine is fixed to an artificial opening at the surface of the abdomen, which is secured to a disposable bag that collects stool and gas. This is called a stoma – an ileostomy if it leads from the small intestine and a colostomy if it leads from the large intestine. Your stomal therapy nurse will inform you on what to expect and how to manage your stoma.

Dietary considerations with a stoma: While no specific diet is generally required for people with a stoma, below are a few important points to remember:

- One role of the large intestine is to reabsorb water, therefore more water is lost through a stoma than through an intact bowel. Because of this, it is important to make sure that you stay well hydrated, particularly if the stomal output is large in volume or watery.
- If you have an ileostomy, the concept of a high-fibre diet as a 'healthy diet' no longer applies. Fibre does its health-promoting work in the large bowel and hence has little general benefit in the small bowel.
- Sometimes diet needs to be changed because the nature of the content of what is filling the ileostomy or colostomy bag is unsatisfactory. The contents may be too watery, have too much volume (e.g., have to change a full bag too often), or contain too much or odorous gas.
- Sometimes, the stoma will be a bit narrow (particularly just after it is formed due to swelling), in which case diet may be adapted to prevent obstruction. Thus, it is important to work with your stomal therapist and dietitian to determine what might be the best approach in your specific case.

J-pouch: When the colon is removed in people with UC, a new rectum can be formed from the end of the small bowel and joined on the anus so that a permanent stoma is not needed. This is called an ileal pouch (ileal pouch anal anastomosis or IPAA) or often a 'J-pouch' (the shape of the pouch made). An ileostomy is temporarily placed while the new bowel heals. In some cases, inflammation of the pouch, called pouchitis, can result. Your treating doctor will guide management of this, usually with antibiotics. Dietary principles are similar to those associated with an ileostomy. Thus, hydration is important and your intake of liquids should be greater than needed by people with a large bowel. Sometimes, stool form, frequency or urgency is unsatisfactory, particularly in the first 12 months of formation, whilst the bowel adapts. It is believed that choosing some types of foods and avoiding others, will help change the stools. These need to be individualised and it is recommended that you do this with the advice of a skilled dietitian.

Nutrition therapy before and after surgery

Before surgery: Good nutritional status is very important to ensure your best chances of good response to the surgery and quick recovery. In many cases, surgery is planned, but sometimes it is urgent. This is another reason why preventing or treating malnutrition early (as described earlier) is so important if you have IBD. One type of treatment for CD is removal of all food and replacement with a nutritionally complete liquid supplement for 6-8 weeks, called exclusive enteral nutrition (EEN). EEN is sometimes used to treat active CD, but it can also be used prior to planned surgery. EEN is useful not only to ensure good nutritional status and correction of malnutrition, if present, but because EEN can treat active CD, it can reduce the 'inflammatory burden' (i.e., how much inflammation is present in the intestine) to decrease risks associated with surgery. For example, one study showed that one quarter of CD patient who received EEN before planned surgery actually no longer needed the surgery. EEN may also be used as a treatment instead of certain medications that carry risks to surgical outcomes. Your treating doctor and dietitian will tell you if you need treatment of malnutrition with food or EEN before your surgery.

After surgery: Temporary swelling of the bowel is expected after surgery and will take approximately six weeks to settle. Furthermore, some surgeries can result in reduced movement through the intestine, so risk of an obstruction is higher. During this period, your treating doctor and dietitian may recommend a restricted fibre diet (as described earlier). Usually six weeks after surgery, restricted foods are reintroduced, unless a long-term fibre restriction is indicated. It is sometimes difficult to find the balance between restriction and risk of obstruction, so this is usually done cautiously with a dietitian and monitoring of symptoms indicating obstruction, such as pain, nausea, vomiting or changes in stoma output.

After surgery, there are higher demands on your body for repair and recovery, so it is a time when there is a much higher risk of undernutrition. Furthermore, if you are placed temporarily or permanently on a restrictive diet, getting enough nutrition can be difficult. Typically, high energy and protein diet (as described earlier) is recommended after surgery, even if you have not lost weight. Increased dietary zinc from food and/or supplements may also be used to improve healing. Your dietitian will guide you on how to include energy- and protein-rich foods, how to balance this with any other dietary requirements and when to stop such diets.

4. Short bowel syndrome

Fluid, electrolytes and nutrients in food are absorbed across the length of the small intestine. If the small bowel is resected in CD, the gut will adapt, in fact, someone can lose over half their small bowel before it results in malnutrition. However, when a lot of the small bowel is removed, this can result in a condition called 'short bowel syndrome' (or short gut). This condition describes an inability of the gut to absorb enough fluid, electrolytes and nutrients, and will result in malnutrition with weight loss, dehydration and diarrhoea.

There are several strategies that help in improving absorption when short bowel syndrome is present. These include: i) use of medications to help improve absorption by slowing the bowel or altering digestion; ii) a diet fortified in energy, protein and certain vitamins and minerals; and iii) carefully monitoring and managing hydration. While dehydration is common in people with short bowel syndrome, drinking more water may even make dehydration worse by promoting loss of electrolytes that are needed for fluid balance. Oral rehydration solutions, such as 'St Mark's Solution', may be required to maintain hydration. These oral rehydration solutions have a suitable balance of water, sodium and glucose (a type of sugar). The right balance will maximise water and sodium absorption, improve hydration and reduce diarrhoea. These solutions are often saltier than typical preparations that you will find in supermarkets (e.g., sports drinks or over-the-counter rehydration solutions) but because of their higher electrolyte concentrations, they are a better formulation for people with short bowel syndrome.

If gut absorption is insufficient, fluid and nutrients may be delivered directly into the bloodstream. This may be only specific vitamins and minerals, or if necessary, a nutritionally complete fluid. This is called parenteral nutrition. It is always preferred to use the gut over veins for delivery of nutrition to maintain integrity of the gut and to avoid complications seen with parenteral nutrition, such as infection at the site of delivery, blood clots, fatty liver and high blood sugar levels. If long-term parenteral nutrition is needed, you will be taught how to manage your parenteral nutrition at home. You will be closely monitored by a specialist team. In rare cases, when parenteral nutrition is complicated, people on long-term parenteral nutrition may be eligible to get an intestinal transplant.

Conclusion

Diet plays many roles in the management of moderate to severe IBD. Treatment and prevention of malnutrition is particularly important during active disease and for consideration before and after surgery. If you are malnourished, seek help from a dietitian, who can guide you on how to replenish any lost nutrients. Careful consideration of diet will also be needed for complications of IBD that require a specific diet, such as management of strictures, stoma, j-pouch or short bowel syndrome. Talk to your treating doctor about when a dietitian is needed. Often no referral is needed.



5. Find your nearest IBD dietitian

An IBD dietitian keeps up to date with current research and can help you sort fact from fiction and use evidence-based strategies to complement treatment provided by your gastroenterologist.

For IBD diet resources (fact sheets and videos) and to find your nearest IBD Dietitian visit <https://deccanibd.org> or scan the QR code.



An IBD Dietitian can help with:¹

- Ensuring someone with IBD gets all essential nutrients, which may be particularly important for those with Crohn's disease who have impaired absorption of nutrients;
- Provide diet therapy to treat active disease, in conjunction with the treating gastroenterologist;
- Changing diet to help control gut symptoms, such as abdominal pain, bloating, diarrhoea, constipation, which may or may not be related to gut inflammation;
- Guiding specialty diets if needed for complications of IBD, such as bowel obstruction, fat malabsorption, kidney stones; and
- Optimising nutrition to help with recovery of surgery, if needed.



Reference: 1. Deccan, Dietitian Crohn's Colitis Australian Network: <https://deccanibd.org>

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