Crohn's disease and ulcerative colitis

Summary

- Crohn’s disease and ulcerative colitis are collectively known as inflammatory bowel disease (IBD).
- Crohn’s disease can appear in any part of a person’s digestive tract from mouth to anus.
- Ulcerative colitis is located only in a person’s large bowel (colon and rectum).
- Diet and food allergies do not cause IBD.
- Medications help manage the symptoms of IBD.
- People with IBD can lead useful and productive lives.
- Some dietary changes can help you manage symptoms of IBD and allow medications to work better.
- Always talk with your doctor, healthcare specialist or dietitian before changing your diet.

Crohn’s disease and ulcerative colitis are collectively known as inflammatory bowel disease (IBD). Both conditions affect the bowel, but in slightly different ways. Crohn’s disease causes inflammation of the full thickness of the bowel wall, in any part of the digestive tract from the mouth to the anus. Ulcerative colitis is inflammation of the inner lining of the large bowel (colon and rectum).

More than 75,000 Australians have one of these conditions. They usually begin in people aged between 15 and 30 years, but can start at any age. Crohn’s disease is becoming much more common in children under the age of nine.

Treatments are available to manage the symptoms of IBD, and people with these conditions can lead normal lives most of the time. Although IBD is not caused by particular foods or allergies, many people with IBD adjust their diet to control the symptoms.

**Effects of Crohn’s disease and ulcerative colitis**

Every person responds differently to IBD. The severity of symptoms will vary from time to time and from person to person. IBD is not a progressive disease (it does not necessarily get worse over time). Rather, flare-ups can range from mild to severe and back to mild again. Some people will experience periods of relief from symptoms in between flare-ups.

We cannot predict how long a person will stay free from symptoms, or when their next flare-up will occur. Some flare-ups settle down quite quickly with treatment. Other times, it may take months for a person’s symptoms to respond to treatment.

IBD interferes with a person’s normal body functions. Signs and symptoms can include:

- pain in the abdomen
- weight loss
- diarrhoea (sometimes with blood and mucus)
- tiredness
- constipation
- malnutrition
- nausea
- delayed or impaired growth in children.

**Causes of Crohn’s disease and ulcerative colitis**
The causes of these diseases are unknown. Some scientists believe the cause might be a defect in the body’s immune system. Infection by a bacterium or virus may be important. Researchers do not think that stress or diet cause IBD.

These diseases are not contagious.

**Diagnosis of Crohn’s disease and ulcerative colitis**
Doctors use a variety of tests to diagnose IBD. These include blood tests, faecal (bowel motion) examination, x-rays, colonoscopy and gastroscopy. In some cases, computed tomography (CT) scanning, magnetic resonance imaging (MRI) and ultrasound may be used.

**Treatment for Crohn’s disease and ulcerative colitis**
The type of treatment for IBD depends on whether you have ulcerative colitis or Crohn’s disease. Treatments may include:
- medication to reduce the chances of flare-ups
- steroid (cortisone) medication
- medication to reduce the activity of the immune system
- corrective surgery for complications.

**Crohn’s disease and ulcerative colitis and diet**
Diet and food allergies do not cause IBD, and long-term special diets are not effective in treating IBD. However, adjusting your diet can help manage some of your symptoms, and can help IBD medications work better. A person with IBD has to pay close attention to their diet, since they may have malnutrition.

**Crohn’s disease and ulcerative colitis and digesting food**
Your mouth and stomach break down food by mechanical and chemical means. When the food has reached a pulp-like consistency, it is slowly released into the first part of the small intestine (duodenum). The food is then massaged along the length of the small intestine. Organs like the pancreas and the gall bladder make digestive enzymes to further break down the food into its simpler components.

The small intestine is lined with microscopic (very small), finger-like projections (villi) that lie close to tiny blood vessels (capillaries). Nutrients pass into the bloodstream through these villi. The rest of the food is pushed into the large bowel, which absorbs excess water. The waste is then temporarily stored in the colon before it is eliminated from the anus.

The two ways in which Crohn’s disease and ulcerative colitis disturb the digestion and absorption processes are:
- Crohn’s disease – an inflamed ileum impairs (reduces) absorption of vitamin B12 and bile salts. Inflammation along the length of the small intestine impairs absorption of all food nutrients. Inflammation of the large bowel impairs water absorption, causing diarrhoea.
- Ulcerative colitis – digestion and absorption are generally not affected. Inflammation of the large bowel impairs water absorption, causing diarrhoea.

Other factors that may affect your nutritional status include:
- Medication – some medication used to treat IBD may lessen your appetite and interfere with the absorption of certain nutrients, such as folic acid.
- Inflammation – your body needs greater amounts of nutrients in order to cope with inflammation and fever.
- Surgery – some people with IBD need surgery to remove parts of their small intestine. This lessens nutrient absorption.

**Problems caused by inadequate nutrition**
Over the long term, reduced absorption of food nutrients can cause a number of problems, including:
- anaemia
- weight loss
IBD and changing your diet

Some dietary changes that may help a person with IBD include:

- Low-fibre diet – when IBD is active, most people find a bland (non-spicy), low-fibre diet helps to ease diarrhoea and abdominal cramping. People with Crohn’s disease who have a narrowed small intestine may need to eat a low-fibre diet most of the time.
- Low-fat diet – people with Crohn’s disease who experience steatorrhoea (diarrhoea that contains undigested dietary fats) may benefit from a low-fat diet.
- Low-lactose diet – the milk sugar lactose is broken down by the enzyme lactase, commonly found in the lining of the small intestine. Some people with Crohn’s disease lack this enzyme, so should avoid milk and other dairy products. Lactose intolerance can be diagnosed with a simple test – ask your doctor.
- Liquid diet – a person with severe Crohn’s disease may need a nutritionally balanced liquid diet.
- Plenty of water – people with IBD need to drink plenty of fluids to prevent dehydration.

Vitamin and mineral supplements for IBD

A person with IBD who eats a healthy, varied diet does not usually need to take vitamin supplements. But if they have a dietary deficiency, they may need tablets or occasional vitamin B12 injections. For example, a person on a low-fibre diet may need extra vitamin C and folic acid because they don’t eat enough fruit and vegetables.

A person with Crohn’s disease who experiences steatorrhoea may need calcium and magnesium supplements. Most children with IBD should take supplements to help them grow and develop normally.

Medical advice and dietary changes for IBD

Always speak with your doctor, healthcare specialist or dietitian before making any changes to your diet. This is particularly important for children with IBD. Self-imposed restrictive diets of any kind often lead to nutritional deficiencies.

Complications of Crohn’s disease and ulcerative colitis

Other complications of the digestive tract include fistulas and intestinal obstruction. Sometimes, a person with IBD experiences symptoms in other areas of the body. These are often referred to as ‘extra-intestinal manifestations’.

Complications caused by nutritional deficiencies

Some of the complications of malnutrition include:

- Dehydration – diarrhoea causes your body to lose fluid, which can lead to dehydration. Severe dehydration can damage your kidneys.
- Anaemia – reduced iron in the diet combined with losing blood from the bowel can lead to anaemia (the blood does not carry enough oxygen).
- Weight loss – reduced appetite and poor absorption of food nutrients can cause weight loss.
- Reduced growth (in children) – inadequate nutrition during childhood and adolescence can impair a child’s growth and physical development.

Inflammation in other areas

Some people with IBD have painful inflammation in other areas of the body, including:

- joints of the fingers, hands, feet, ankles and knees
- joints of the spine, including vertebrae and sacroiliac joints (located at the pelvis)
- eyes
- skin.

Skin problems

Two specific skin problems that can occur as a result of IBD are:

- pyoderma gangrenosum – small, sunken ulcers on the skin
- erythema nodosum – painful, small, reddened nodules on the skin (usually on the legs).

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Fistulas
Fistulas are abnormal openings in the body. People with Crohn’s disease are more likely to develop fistulas than people with ulcerative colitis. The surface of the chronically inflamed bowel can become rough and sticky, causing it to ‘glue’ to a nearby structure, such as a neighbouring loop of intestine or an abdominal organ. This triggers more inflammation, and may lead to small holes (fistulas) between the structures. Sometimes, a fistula becomes blocked, causing an abscess (local infection and inflammation).

Intestinal obstruction
Some people with Crohn’s disease may experience intestinal obstruction. Food can no longer move through the person’s intestine, causing severe abdominal pain, bloating and sometimes vomiting.

Toxic megacolon
Toxic megacolon is a rare complication. Mild abdominal distension (bloating) is common and harmless, even in people without IBD. However, the irritated and inflamed large intestine (large bowel) of a person with IBD can suddenly and severely distend. A section of the intestinal wall may balloon until it ruptures (bursts). The ruptured bowel spills its contents into the abdominal cavity, causing infection (peritonitis).

Toxic megacolon is a life-threatening emergency. Seek urgent medical attention if you experience symptoms, which include:

- hard, swollen abdomen
- severe abdominal pain
- fever
- bloody diarrhoea
- accelerated heart rate.

Treatment of IBD complications
Treatment depends on the particular complication, but may include:

- complications caused by nutritional deficiencies – vitamin and mineral supplements (by mouth or injection), changes to diet (such as a low-fibre diet) or a liquid diet in severe cases
- inflammation in other body areas – usually ease when the bowel inflammation is controlled with medication
- fistulas – small openings that often heal by themselves, with treatment to ease the inflammation. A person may need surgery to close a larger fistula. Abscesses may need antibiotics and surgical drainage
- intestinal obstruction – in some cases, medical treatment to ease the inflammation will clear the obstruction. In severe cases, the person will need surgery
- toxic megacolon – the person goes to hospital, and receives fluids and nutrients intravenously (through a tube and needle into their bloodstream) instead of by mouth, plus antibiotics and steroids to reduce inflammation. Sometimes, the doctor will remove the contents of the person’s stomach with a slender tube (gastric suctioning). A ruptured bowel needs surgical repair or removal. In severe cases, the whole of the large bowel may need to be surgically removed.

Daily life for people with IBD
People with IBD lead useful and productive lives, even though they need to take medications. When they are not experiencing a flare-up of their disease, they feel quite well and are often free of symptoms.

People with IBD can marry, enjoy sexual activity and have children. They can hold down jobs, care for families and enjoy sport and recreational activities.

Even though there is currently no cure for IBD, medical therapy has improved the health and quality of life of most people with Crohn’s disease and ulcerative colitis. Research underway today may lead to further improvements in medical and surgical treatment, and even a cure.

Where to get help
- Your doctor

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Things to remember

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- Always talk with your doctor, healthcare specialist or dietitian before changing your diet. Arrange an emergency plan of action with your doctor, including after-hours phone numbers.