ULTIMATE GUT HEALTH

How to Fix Your Gut Problems

By Dr Sandra Cabot

CONTENTS

4. Parasites That Infect Humans

5. Food Allergies and Intolerances

6. Recipes

7. Bowel Cleanse and Detox

8. Tests for bowel and digestive function

APPENDIX

The information provided herein should not be used during any medical emergency or for the diagnosis or treatment of any medical condition.

The suggestions, ideas and treatments described in this book are not intended to replace the care and supervision of a trained healthcare professional. All problems and concerns regarding your health require medical supervision. If you have any pre-existing medical disorders, you must consult your doctor before following any treatments in this book.

If you have any questions regarding your health or any of the recommendations in this ebook, call our health advisory service at +61 2 4655 4666 or send us an email at contact@sandracabot.com

Websites:

- www.sandracabot.com
- www.liverdoctor.com

eBook ISBN 978-1-936609-48-2

THE AUTHOR

Dr Sandra Cabot MBBS, DRCOG is the author of 30 books on health, including the award-winning ***"The Liver Cleansing Diet"*** book.

Dr Sandra Cabot is a consultant to the Women's Health Advisory Service and has presented seminars all over the world. Dr Cabot has a medical practice in Camden NSW.

Sandra is sometimes known as "The Flying Doctor" as she frequently flies herself to many country towns to hold health seminars. These have raised considerable funds for local community services over the last 35 years. Sandra spent 6 months during the early 1980s working in a large missionary hospital in the Himalayan foothills of India. Dr Cabot owns several medevac aircraft which transport organs for transplant and critically ill patients in the Australasia region.

Dr Sandra Cabot and her health team receive thousands of emails from people from all over the world who have read her books and are searching for holistic solutions to their health problems.

Her email address is contact@sandracabot.com

If you have any questions regarding your health or any of the recommendations in this ebook, call our health advisory service at +61 2 4655 4666 or send us an email at contact@sandracabot.com

PREFACE

Hippocrates - the father of medicine - said that: “All disease begins in the gut”. Well we have come a long way since Hippocrates, and have discovered that many diseases are genetic in origin; but it is still true today that if your digestive tract is unhealthy, you will not be a healthy individual. After over 40 years of practising medicine, I do believe that good health and longevity are dependent on the health of the digestive tract and the liver.

The enjoyment of food is one of life’s great pleasures and brings us together as human beings. But for many, the enjoyment of food and the supply of nutrients essential to good health can be greatly impaired by disorders of the intestinal tract. You may eat a nutritious diet but if your liver, pancreas or intestines are not healthy, you will not be able to benefit from the nutrients in healthy foods.

However, the digestive tract is far more than a source of nutrients, and over the last decade we have come to understand that the gut plays a crucial role in all aspects of our health. We have discovered links between the gut and mental health, diabetes, immune dysfunction, obesity and autism. The relationship between gut health and mental health is especially interesting as the gut has now become recognised as the “second brain”. This is because the intestines produce the largest supply of neurotransmitters and indeed produce a lot more serotonin than the brain does. Serotonin is known as the “happy neurotransmitter” as it affects our mood, sleep and energy. The brain-gut connection is being researched and we know that the state of our gut has a huge effect on our mental and emotional health.

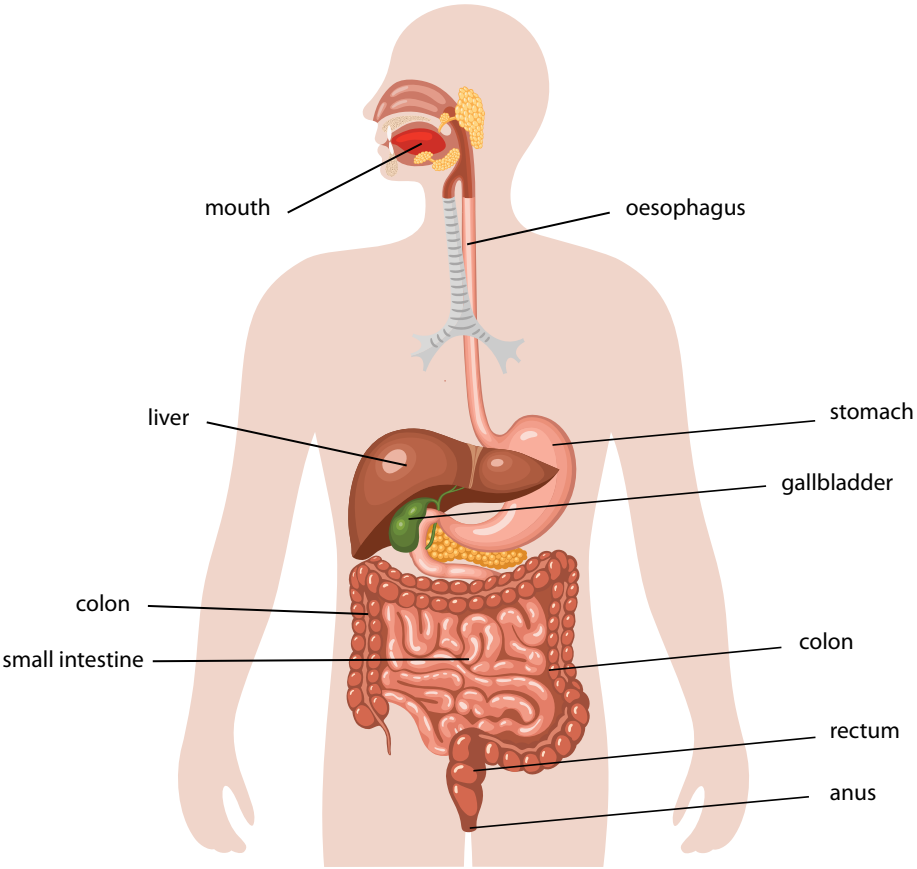
Our gut accounts for most of our immune system and contains around two kilograms (4.4 pounds) of a huge variety of micro-organisms known as the microbiome. The microbiome contains around 50 trillion living microorganisms of approximately 1000 different species. The microbiome regulates our immune system and protects us from deadly infections. Improving the types of bacteria in our gut can overcome and prevent many diseases.

These microorganisms influence our hunger and make us crave the foods they like and need, which may not be the best choices for our weight and health. You may be addicted to sugar and high carbohydrate foods because you have unhealthy gut bacteria. Having the right type of bacteria in your gut will help to keep you slimmer and healthier!

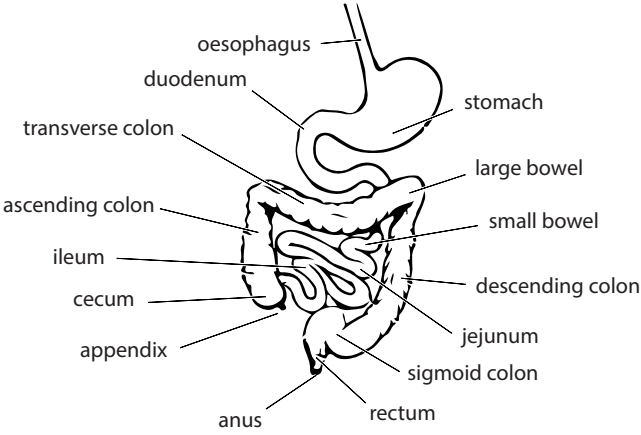
Dr Sandra Cabot

1. WHAT IS THE DIGESTIVE SYSTEM?

The digestive tract is known as the alimentary canal and is a muscular tube around 10 metres (33 feet) long that starts at the mouth and ends at the anus. The digestive tract is also known as the gut.

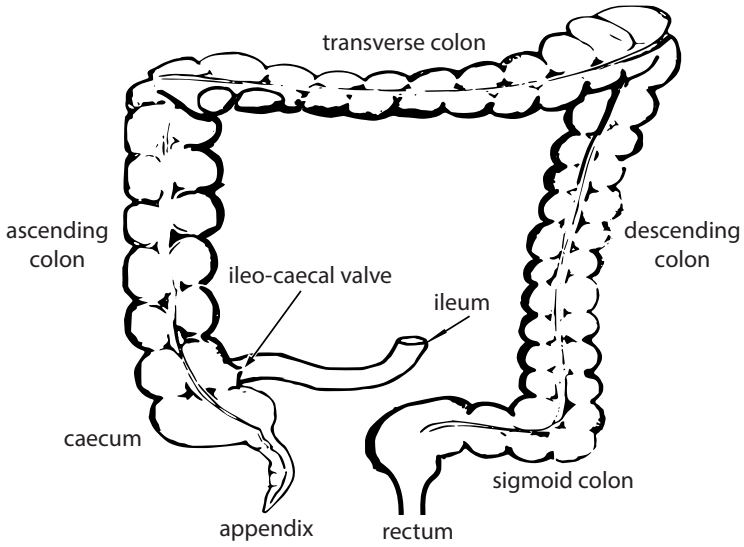


The intestines



The term “bowels” is synonymous with the intestines. The small intestines are referred to as the small bowel. The large intestine is known as the colon.

The colon



1.1 Problems with the digestive system

- Problems can occur if the size of the colon becomes too large, or if it develops inflammation, spasm or pockets (diverticula) in its muscular walls.
- Food allergies and intolerances can cause irritable bowel syndrome. The most common food intolerances are to lactose (found in dairy products), fructose (fruit sugar), fructans and other fructo-oligosaccharides (aka FODMAPs). If you are intolerant to these types of carbohydrates, you will have excess bloating and a lot of flatulence and perhaps diarrhoea. You may need to see a dietitian to follow what is known as a low FODMAP diet. FODMAPs stands for Fermentable-Oligo-Di and Mono-saccharides and Polyols.
  For a low FODMAP diet visit https://dietingwellfodmap.com/low-fodmap-diet-meal-plan-menu/
  Gluten intolerance can cause coeliac disease; this is where the lining of the small bowel is so damaged that nutrients and fat cannot be absorbed. Gluten can damage the intestines in other ways; this may cause symptoms of irritable bowel, constipation or leaky gut. The best test is to strictly avoid gluten in your diet for 6 months and observe the difference in your bowel health.
- Lack of fluid intake, especially water, can lead to many bowel problems. If you have bowel problems, you need to drink plenty of healthy fluids such as water, herbal teas and vegetable juices. Try to drink 10 to 12 glasses of these types of fluids daily to rehydrate your whole body and get your bowels working.
- A lack of digestive enzymes from the pancreas can cause indigestion and bowel disturbances. The pancreas may be damaged from a build-up of fat within it (fatty pancreas), or excessive consumption of alcohol or sugar.
- Stress, anxiety and rushing your meals (as well as unpleasant people!) can cause indigestion and irritable bowel syndrome. It can really make a difference if you try and relax before you eat, slow down and chew your food thoroughly.
- Sluggish contractions of the muscular walls of the stomach and intestines; this is called intestinal dysmotility or a lazy bowel; this usually results in constipation and bloating. This can be caused by diabetes, excess and prolonged use of strong laxative drugs and diseases of the nervous system.
- Reflux of acid contents from the stomach which flow back into the oesophagus causing heartburn. This is known as GORD.
- Inflammation of the lining of the stomach known as gastritis or inflammation of the duodenum; this can lead to peptic ulcers.
- An excessively long or redundant bowel which is too large; this affects around one in ten people (10% of the population). A redundant bowel causes chronic constipation and bloating. This is sometimes called a megacolon. People who have inherited such a long and enlarged bowel usually complain of constipation from a

young age. These people may not have a bowel action for many days unless they take large doses of laxatives.

- Pockets or diverticula in the wall of the colon – this is known as diverticulosis. These pockets often trap tiny pieces of food and can become inflamed and infected.
- Unhealthy types of microbes, such as parasites and fungi (such as Candida and other yeasts, tapeworms, roundworms, amoeba, and blastocysts etc.), may inhabit the intestines. Pathogenic bacteria such as Helicobacter pylori, antibiotic resistant E. coli and Clostridium difficile etc., may reside in various parts of the gut. The condition of unhealthy microorganisms in the gut is called dysbiosis.
- An inflamed or very thin inner lining of the intestines. The inner lining is known as the mucous membranes. This causes excess permeability of the bowel lining - this is known as leaky gut. A leaky gut increases the risk of immune dysfunction such as inflammation, food sensitivities and allergies.
- A prolapsed bowel, which hangs down too low in the abdominal and pelvic cavities. This occurs because of weakening in the connective tissues which support the bowel, and is worsened by chronic constipation and prolonged straining during a bowel action. Weakness of the pelvic floor from childbirth will worsen a bowel prolapse. Weakness of the abdominal muscles can also contribute to bowel prolapse and regular exercise such as pelvic floor exercises, yoga and/or Pilates can help a lot.

If you have any questions regarding your health or any of the recommendations in this ebook, call our health advisory service at +61 2 4655 4666 or send us an email at contact@sandracabot.com

2. HELP FOR GUT DISORDERS

- **Increase your intake of water.** I cannot tell you how many people I have seen over the years with bowel problems because they are chronically dehydrated. This causes the bowel contents to harden and stagnate, which can lead to overgrowth of bad bacteria and inflammation. I recommend at least 2 litres of suitable liquid daily (pure water, tea and vegetable juices).
- **Increase your intake of fibre.** Many people lack fibre because they consume too much processed food. Without fibre, the contents of the bowel will stagnate. Lack of fibre will also force the bowel muscles to contract too strongly in an effort to move the faeces along to stimulate a bowel movement. These excessive contractions increase the pressure inside the bowel, which leads to the formation of pockets (diverticula) in the bowel wall. Use a gluten-free, high fibre powder regularly, such as ***Fibretone*** to cleanse the colon. This will have a "broom effect" and sweep the walls of the colon removing layers of encrusted and hardened faeces. ***Fibretone*** is especially useful if your constipation is associated with irritable bowel syndrome, gluten intolerance, bowel pockets, colonic spasm or loss of the gallbladder. ***Fibretone*** contains psyllium husk, the amino acids taurine and glycine, and the excellent liver herbs St Mary's thistle and dandelion root.
- **Increase your intake of raw food.** At least 40 percent of the diet should consist of RAW vegetables, fruits, nuts and seeds. If you find it hard to digest raw fruits and vegetables and/or nuts and seeds, invest in a high-powered food processor such as a Vitamix or Thermomix to produce raw, delicious and easily digested recipes.
- **Ensure adequate stomach acid.** Try apple cider vinegar. During your meal, sip a small glass of water containing 2-3 tablespoons of good quality organic apple cider vinegar. Vinegar should not be taken on an empty stomach. Some people, especially older people, find that this practice really improves their digestion and reduces bloating. Choose an organic type which will be cloudy in appearance due to its probiotic content. It is also helpful for reducing bad bacteria in the gut.
  Some people need to take supplements of ***Betaine HCL*** capsules in the middle of meals to release hydrochloric acid for digestion.
- **Use natural antibiotics.** ***BactoClear*** capsules are a natural antibiotic for the gut. They contain a combination of philodendron, oregano, thyme and clove essential oils in sufficient doses to reduce the number of unhealthy bacteria and fungi in the gut. ***BactoClear*** capsules are specially designed to be acid resistant so that their active ingredients are not destroyed by stomach acid and they remain active in the gut to reduce unhealthy microorganisms. ***BactoClear*** can be taken long term. Ozone water is an excellent natural antibiotic for the gut.
- **Eat natural antibiotic foods, herbs and condiments.** These include cabbage juice, raw or fermented garlic, onions, leeks, radishes, fenugreek, ginger, chili, lemon

juice, organic apple cider vinegar, turmeric, mustard and rosemary.

- **Avoid if possible.** Avoid the long-term or frequent use of antibiotic, anti-inflammatory and steroid drugs, as they can have deleterious effects on gut bacteria and the gut lining.
- **Improve your diet:**
  - Avoid refined sugars and carbohydrates, as they are the fuel for unhealthy microorganisms to grow.
  - Avoid processed foods, such as preserved meats (salami, fritz, devon, smoked meats, etc.)
  - Avoid mouldy foods such as old peanuts, green potatoes and dried fruits that are mouldy or bitter.
- Follow practices of good hygiene such as sterilisation of kitchen towels and washers and frequent hand washing. Wash and clean your raw produce correctly.
- Use a ***magnesium powder*** supplement. Magnesium is essential for the optimal function of the nerves and muscles in the gut and many people are magnesium deficient. Magnesium should be taken daily if you are constipated.
- Try probiotic supplements or fermented foods such as kombucha, kimchi, sauerkraut or plain Greek-style, sugar-free dairy or coconut yoghurt. These help to maintain ecological balance in the gut and are particularly good after antibiotic therapy. Fermented foods contain a huge number of different types of beneficial microbes. Start to eat some fermented foods to boost your gut population of friendly microorganisms and this can have enormous digestive and immune benefits.
- Repair the gut lining. Leaky gut syndrome is an extremely common condition and is often present in individuals with food allergies or small intestinal bacterial overgrowth. Strategies to repair the gut lining include intermittent water fasting for 16 to 48 hours, consuming bone broth or kelp broth, and using ***Ultimate Gut Health*** powder daily.

  Ultimate Gut Health powder is an excellent formulation that can be taken daily to repair, heal and restore the gut lining. The ***Ultimate Gut Health*** powder has multiple actions and provides fuel for the cells lining the intestines and protects the lining of the gastrointestinal tract (known as the mucosa).

  Ultimate Gut Health powder can be very beneficial for:

  - leaky gut
  - inflammatory bowel problems
  - gastritis
  - reflux or GORD
  - peptic ulcers
  - irritable bowel syndrome

- unhealthy gut bacteria
- weak digestion
- poor absorption of nutrients
- food allergies and/or intolerances

Take one teaspoon of the ***Ultimate Gut Health*** powder once or twice daily in water or coconut or almond milk.

The ***Ultimate Gut Health*** powder is a superior gut powder, combining nourishing and healing amino acids, fibres and a live probiotic. This formula is designed to repair and strengthen the gut and improve gut bacteria.

The ***Ultimate Gut Health*** powder ingredients are:

- glutamine
- chia seed flour
- Saccharomyces boulardii
- slippery elm bark powder
- apple pectin
- natural lemon lime flavour
- thaumatin
- aloe vera powder
- stevia

If you have any questions regarding your health or any of the recommendations in this ebook, call our health advisory service at +61 2 4655 4666 or send us an email at contact@sandracabot.com

3. GUT PROBLEMS

3.1 Excess intestinal gas

Problems with excess intestinal gas are common. Many people refer to it as excess wind inside them. It is amazing to learn that around 25 litres of gas is produced inside the intestines every 24 hours!

How to reduce intestinal gas and bloating

- Drink more water in between meals, rather than during meals.
- Try reducing the amount of grain-based fibre in your diet (wheat, rye, barley, oats, rice and their products, especially breads, pastries and pasta). For high fibre vegetables and fruits, use a processor such as a Thermomix to blend your food to make it easier to digest.
- Take ***digestive enzymes*** containing animal pancreas extract in the middle of meals.
- If you have lost your gallbladder or have a non-functional gallbladder, try taking 1 to 2 ***Ox Bile*** capsules in the middle of meals. Your gut problems could be due to inadequate bile production in such cases.
- Try excluding gluten and/or dairy products and observe the effect on your gut.
- Try a grain-free and legume-free diet for 4 months. That means no wheat, rye, barley, oats, spelt, rice, corn, beans, peas or lentils.
- Try taking a probiotic and/or eating more fermented foods.
- Mint tea and fennel tea are specific for intestinal gas and not only reduce gas and bloating but also improve digestion. Drink 3 to 4 cups daily and see the difference!
- Try including condiments in your cooking that reduce flatulence. The best ones are caraway, cardamom, fennel seeds, coriander, cumin, cloves, ginger and turmeric.
- Try natural antibiotics such as ***BactoClear*** capsules to reduce unhealthy bacteria in the gut. The essential herb oils in these acid-resistant capsules can reduce small intestinal bacterial overgrowth as well as yeast overgrowth. Some doctors prescribe a nonabsorbable antibiotic drug such as Rifaximin to reduce the growth of gas forming unhealthy bacteria in the gut. Try drinking ozone water.
- Medications - in severe cases, the antispasmodic drugs such as Mebeverine hydrochloride or hyoscine can help to reduce symptoms of excessive gas, especially if it is associated with abdominal cramps and pain.

If your symptoms are no better after 4 months, consult a naturopath or dietician to be checked for intolerance to foods high in FODMAPs.

3.2 Constipation

The normal frequency of bowel actions varies greatly between people. Ideally, you should have from one to three bowel actions daily. They should be a brownish colour, soft, have a grainy texture and pass without undue straining. They may contain obvious pieces of undigested vegetables, such as small parts of plant skins and small parts of leaves. This is a good sign because this increased fibre acts like a broom to cleanse the bowel walls. See pictures of stools (Bristol stool chart).

Signs to worry about are red blood in the stools, a black colour of the stools, or an obvious change in bowel habits. It is good to look at each bowel action after you pass it to check for general appearance and colour.

Effects of chronic constipation

If constipation becomes chronic, waste products and faeces will accumulate in loops, pockets, nooks and crannies in the bowel. In such places, unfriendly bacteria and parasites may grow and this can cause a build-up of toxins. Toxins from the bowel may recirculate back to the liver. An overworked liver causes fatigue and poor general health.

The bowel may become inflated causing abdominal bloating, cramps and unpleasant gas - and this is embarrassing for many people. If you have these problems, it is wise to have a colonoscopy to exclude serious bowel disease.

Chronic constipation can lead to haemorrhoids and anal fissures, which are painful and can bleed; producing bright red blood. Constipation can lead to pockets in the bowel which may become inflamed – this is known as diverticulitis. Repetitive straining to pass hard faeces can lead to a prolapsed rectum and/or faecal incontinence.

Laxatives – which ones are the best?

Laxatives are used to induce a bowel action and/or to prevent constipation.

- **Strong laxatives**
  Some laxatives are very potent and may overstimulate the muscles of the bowel leading to irritation and spasm, which in the long term may cause permanent damage of the colon. For this reason, strong laxatives should not be used on a regular basis. Strong laxatives (also known as cathartics) can be used occasionally for severe constipation. They include senna and cascara.

Other laxatives include phenolphthalein and dioctyl sodium sulphosuccinate, and although they work swiftly, they can cause diarrhoea and cramping. Strong laxatives can be habit-forming and are best used for occasional use only.

- **Osmotic laxatives**
  Osmotic laxatives draw water into the colon and make the bowel actions soft and more liquid. They do not generally irritate the bowels and can be safely used on a regular and even daily basis.
  There are several subgroups of osmotic laxatives: namely saline, magnesium (as oxide or hydroxide) and sugar alcohols (these include lactulose, propylene glycol and glycerine).
  My favourite osmotic laxative is ***magnesium*** which works in specific forms - magnesium sulphate (Epsom's salts), magnesium oxide and magnesium hydroxide. Epsom's salts are unpleasant in taste and the other forms of magnesium are much more palatable. Magnesium is not a sugar alcohol and thus is not likely to cause bloating.
  Propylene glycol (found in OsmoLax, Pegalax and Movicol brands) is listed as "generally recognised as safe" (GRAS) for use as a direct food additive by the U.S. Food and Drug Administration. Propylene glycol is a sugar alcohol and can cause bloating, cramps and gas in those with intolerance to FODMAPs.
  Lactulose (also known as Duphalac) is a synthetic, non-digestible, sugar-like agent (not to be confused with lactose, the sugar found in milk). It is also a sugar alcohol that can cause bloating.
  Osmotic laxatives increase the water content in the bowel, making the faeces softer and easier to pass, so they can be used for children over 4 years of age as well as adults.

- **Suppositories and enemas**
  Suppositories and enemas are effective for severe constipation or faecal impaction. Some bowel therapists add the herb catnip or coffee to enemas to improve their cleansing effect. Faecal impaction means that hard faeces get stuck in the rectum and lower colon, and obstruct the passage of softer faeces higher up. This can lead to "spurious diarrhoea", where the softer faeces above the hard-impacted faeces liquefy and are able to pass around the hard faeces. It then appears as though the patient has diarrhoea, when in reality they have severe constipation. This can occur in the very elderly, immobilised persons, overmedicated patients, or those with neurological diseases. This is why a doctor should perform a rectal examination in severely constipated patients. Faecal impaction may require manual extraction of the faeces if an enema does not work. Thereafter, regular enemas or colonic irrigations may need to be given to prevent a recurrence.
  Many people find that colonic irrigations are very beneficial in removing waste products from the bowel, and in experienced hands this is safe to do. If you have severe constipation, colonic irrigations from a registered practitioner every 2 to 4 weeks can be of great benefit.

However, even if you have regular enemas or colonic irrigations, you still need a high fibre diet and plenty of water, and if possible regular exercise. Enemas and/or colonic irrigations should not be performed in cases of inflammatory bowel disease, severe diverticulitis, or where there is a structural defect of the bowel. This is to avoid mechanical damage to the bowel in these cases.

- **Fibre**
  A high fibre diet is best obtained from eating plentiful vegetables and fruits. Grinding linseeds (flaxseeds), sunflower seeds and almonds into a fine powder can help stubborn constipation and can be eaten instead of bran. This powder mixture is known as LSA and can be purchased from supermarkets and health food stores or make it yourself in a grinder and store it in the freezer. Chia seeds and hemp seeds are excellent for constipation and reduce bowel inflammation. Add them to smoothies or gluten-free muesli. Hemp and chia seeds can be eaten regularly in salads and smoothies and are excellent for constipation. You do not need to grind hemp seeds or chia seeds as they are soft and easily digested.
  Fibre products can help constipation and the best known one is psyllium husks. An excellent gluten-free fibre product is called ***Fibretone***. ***Fibretone*** is a superfood for the bowels; the dose is 1 or more teaspoons of ***Fibretone*** powder daily on cereal or in smoothies, juice or water. Fibretone is suitable for all types of constipation as it acts like an "intestinal broom," sweeping the walls of the colon clean. Make sure that you drink plenty of pure water (2 litres daily) to help this powder do its work. ***Fibretone*** can reduce irritable bowel syndrome and chronic constipation. It can also reduce bowel toxicity caused by faecal stagnation. ***Fibretone*** is also suitable for those who are allergic to gluten (found in wheat, oat, barley or rye).

3.3 Diarrhoea

Diarrhoea is the opposite of constipation and refers to bowel actions that are too frequent and often very watery and explosive. The stool may contain only brownish to green water, small amounts of faeces mixed with mucus, or undigested food. There may be urgency, abdominal cramps and/or discomfort before and during defaecation.

If you have a bowel motion more than four times a day, this is considered unusual and worth investigating. The healthy number of bowel actions is one to three daily.

What are the causes of diarrhoea?

- Inflammatory bowel diseases
- Irritable bowel syndrome
- Leaky gut

- Stress and anxiety may cause a “nervous bowel” which manifests as urgency and frequent need to defaecate. Nervous diarrhoea can be controlled with a small dose (2.5 to 10 mg) of the medication called Amitryptiline taken at night, several hours before sleep.
- Removal of the gallbladder may cause a reduction in bile flow during a meal, which results in impaired absorption of dietary fats; this may cause fatty, loose stools. This can be helped by taking a supplement of ***Ox Bile*** capsules during the middle of the meal.
- Diseases of the pancreas may cause impaired digestion and absorption of food resulting in diarrhoea. This can be remedied with a supplement of pancreatic ***digestive enzymes*** during the meal.
- Food intolerances such as lactose intolerance and FODMAP intolerance.
- Coeliac disease or non-coeliac gluten intolerance.
- Bowel cancer can present as diarrhoea, often alternating with constipation.
- Infection of the bowel with parasites, viruses, fungi or pathogenic bacteria. The most common cause of this is food contamination; aka food poisoning.

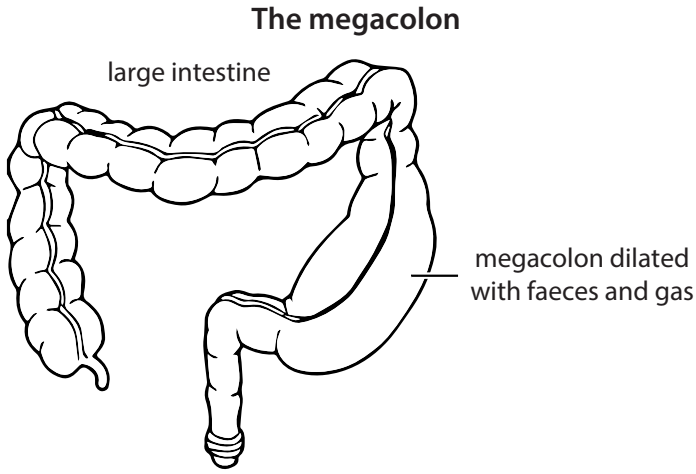
Anyone with persistent and/or severe diarrhoea should be referred to a gastroenterologist for a colonoscopy and testing of the stools for blood, bacteria and parasites.

3.4 Megacolon

Megacolon is the term used for an abnormally enlarged colon. It is often associated with extra (redundant) loops of bowel. There may be huge redundant loops of bowel that trap food, which stagnates and putrefies inside them.

Megacolon is a mechanical problem and causes abdominal bloating, constipation, flatulence and abdominal pain.

The constipation produced is severe and it may be over a week before a bowel action eventuates.



In some people with severe constipation caused by a megacolon, there is damage to the nerves that supply the muscles in the colon, and thus the contractions of the muscles are weak and do not move the faeces along the colon. This type of nerve damage is commonly caused by diabetes, diseases of the brain and spinal cord, some medications, and chemotherapy for cancer. In diabetics, weight loss and blood sugar control can reduce nerve damage and thus constipation.

In people with severe constipation caused by megacolon and/or nerve damage, the use of regular enemas and/or colonic irrigations is essential.

A special X-ray called a barium enema is able to diagnose megacolon and shows the extra loops of unwanted bowel. In extreme cases, the extra loops of bowel become huge and great relief is achieved by surgically removing them and rejoining the healthy edges of the colon. The symptoms are relieved and the constipation cured. This surgical procedure is called a bowel resection and is best done by a surgeon who specialises in large bowel (colon) surgery. You can ask your general practitioner for a referral to such a specialist surgeon.

Case histories and testimonials

Dear Health Advisory Service,

I have been using a fibre powder for 10 weeks and I have noticed dramatic changes in my body. I had been a sufferer of abdominal bloating for 20 years and was most distressed to see my waistline getting larger every year. The bloating was much worse after eating and before my periods were due. I was unable to look nice in belts and my

jeans would not fit, which made me very depressed. No matter what I tried to wear I looked awful and like a “middle-aged frump.” I have always been constipated with small, hard stools that would not come out easily. I saw a specialist who performed a colonoscopy test on me and said that my bowel looked normal and was not enlarged. He diagnosed a lazy bowel!

I began using a magnesium powder and Fibretone powder every day, and I also doubled my intake of water and I gave up gluten in my diet. After 3 months, my bowel actions changed completely so that I now go twice every day and usually at the same time. The bowel actions are larger and much longer. My stomach has gradually gone down and I am now able to wear my jeans comfortably. I am so happy to think that I have found a natural solution, although I wished I had understood my problem years ago to avoid all the suffering.

Jacky Masters
Adelaide SA

Dear Dr Cabot

I am a farmer who works with cattle and sheep and eat quite a lot of meat. I have been constipated for over 10 years and also suffered with irritable moods, haemorrhoids and itching around the anus. My wife finally got sick of my complaints and read your liver book. She then put me on two powders – one was a fibre powder and the other one was a potent magnesium powder. For the first 8 days it did not change much, but on the 9th day I had a huge bowel action that was well over 30 cm long and very offensive in smell. When I examined it, I saw hundreds of small worms wriggling around in it and two long ones as well. I was disgusted and told my doctor, who tested my bowel actions and found several varieties of parasites. I have been prescribed an anti-worm drug. I have continued with the two powders for 9 months with very good results and now have 2 largish bowel actions daily without straining. The itch and bad moods have gone and I have lost 13 kilograms in weight. My wife wanted me to write to you and thank you for your excellent book.

Joe McCormick
Perth WA

3.5 Ulcerative colitis (UC)

Ulcerative colitis (UC) is a disease of the large intestine (colon) and causes inflammation and ulceration of the inner lining (mucosa) of the colon. In UC, the bowel lining becomes ulcerated releasing blood, mucus and pus.

The diet needs to be high in easily-absorbed forms of protein and carbohydrates.

Protein powders made from pea protein, hemp protein or egg white can be very helpful when solid foods cannot be tolerated.

High fibre foods may not be tolerated and indeed may often aggravate the diarrhoea. In this situation, raw vegetable and fruit juices made freshly with a juice-extracting machine and diluted with water, can provide essential healing antioxidants. Some people will not need to dilute the raw juices, while others have such an inflamed gut that they need to dilute the juice to have two-parts pure water to one-part juice. Drink 200 ml (7 oz) of the raw juice every three to four hours. ***Glutamine*** powder or ***Ultimate Gut Health*** powder can be mixed into these raw juices or smoothies to provide more rapid healing of the ulcerated bowel lining.

During acute flare-ups of UC, avoid high fibre cereals, seeds and nuts. Purée your fruits and vegetables after cooking them and eat only small, frequent meals.

It is much better to eat your fruits and vegetables finely chopped or grated after they have been washed thoroughly. It is even better if you can afford to purchase a high-powered food processor such as a Vitamix or Thermomix to blend whole fruits and vegetables into a wholefoods raw soup. These machines can make green smoothies with things such as avocado, kale, carrot, green apples, pears, ginger, mint and cucumber.

Seeds and nuts should be ground in a coffee grinder or food processor. You do not have to grind hemp or chia seeds, as these are soft and easily chewed and digested. Chia seeds and hemp seeds are the most easily digested and non-irritating seeds for patients with inflammatory bowel disease.

It is important to avoid foods that may trigger attacks and everyone is different here. However, I advise you to completely avoid gluten-containing foods such as wheat, rye, barley and oats. Many processed foods contain gluten. Gluten has a high chance of aggravating autoimmune diseases such as ulcerative colitis and Crohn's disease (CD), and this applies even if you are NOT diagnosed with coeliac disease.

Some people will be much better off if they also avoid dairy products, such as cow's milk, butter, cream, ice cream and cheese. Try other milks such as coconut, soy, rice or almond milk. Margarine should also be avoided. Inflammatory bowel diseases often require both a gluten and dairy-free diet long term in order to prevent recurrences.

Deep fried foods, very spicy foods, preserved, smoked and processed foods are better avoided. If enjoyed, red meat can be eaten but should be very fresh, very well cooked and eaten in small amounts at one time.

Supplements of the fat-soluble vitamins (namely vitamins A, D, E, and K) should be taken regularly. Cod liver oil and grass-fed lamb or calf liver (eaten as lamb's fry as a popular and healthy dish) are good sources of these vitamins. Grass-fed liver can help to build up iron, protein and vitamin levels and is very healthy to eat if you have inflammatory bowel diseases.

If blood loss from the bowels has caused anaemia, tablets of organic iron, vitamin C and folic acid should be given. Great benefit can be obtained from vitamin B12 injections. Intravenous iron transfusions are easily obtained and may quickly overcome anaemia and its associated severe fatigue.

To reduce inflammation and speed up healing, it is vital to provide nutritional supplements to balance the immune system. I recommend ***selenium*** 150 to 200 mcg daily, ***vitamin C*** 500 mg 2 to 3 times daily and ***vitamin D3***. The dose of vitamin D required will vary from 3000 to 5000 IU daily depending on what your blood level of vitamin D is. It is important to keep your blood level of vitamin D towards the high end of the normal range, because vitamin D is very beneficial for bowel and immune health. Take all these supplements at the beginning of or during the middle of meals. These nutritional supplements act as antioxidants and will reduce the risk of bowel cancer developing if they are taken regularly and long term. ***Selenium*** in particular is most beneficial to reduce the risk of bowel cancer.

I recommend you take ***Ultimate Gut Health*** powder in a dose of one teaspoon once or twice daily on a regular basis, as it has specific healing effects on the lining of the bowels.

Some patients have told me that eating green bananas has been helpful in reducing UC and CD symptoms, so this is worth bearing in mind, but I am not sure of the mechanism of action. It surely will not hurt you anyway!

Probiotic supplements and fermented foods may help those with inflammatory bowel disease (IBD).

Bone broth and/or kelp broth are excellent to use regularly if you have inflammatory bowel disease, both for their healing and nutritional benefits.

3.6 Crohn's disease (CD)

Crohn's disease (CD) is a severe inflammatory disease of the intestines, and like ulcerative colitis, it is autoimmune in origin. CD can affect any portion of the gastrointestinal tract, from the oesophagus to the anus. It most commonly attacks the last part of the small intestine (known as the ileum) where it joins the colon; this is known as the ileo-caecal area. Crohn's disease is sometimes called ileitis, which means inflammation of the ileum. In CD, the inflammation of the bowel can be so deep that all layers of the bowel are affected. Eventually, scarring may cause narrowing and/or blockage of the intestinal tube (lumen).

Symptoms of CD can include: abdominal pain, fever, anaemia, blood and mucus in the faeces, watery and/or bloody bowel actions, chronic diarrhoea, weight loss and fissures (cracks) in the anal area.

CT scans and MRI scans of the abdomen reveal a thickened, scarred and narrowed intestinal wall. The faeces (stools) will often test positive for blood and pus. The faeces should also be cultured to detect unhealthy bacteria. A colonoscopy will need to be done to assess severity of the disease.

Treatment of Crohn's disease (CD)

The diet must be adjusted according to the severity of the symptoms and is similar to the diet discussed for ulcerative colitis. The absorption of nutrients from the inflamed small bowel lining may be poor, and it is usual to require a diet high in easily absorbed forms of protein and carbohydrates. Small frequent meals are better tolerated. Gluten-containing foods and dairy products should be avoided completely, as these foods commonly aggravate CD.

When the bowel is inflamed, high-fibre foods may not be tolerated well and many foods, such as fruits and vegetables, must be pureed in a blender. A Vitamix or Thermomix are wonderful utensils, as they can make whole food smoothies and soups. It is common for vitamin B12 levels to be low, and injections of vitamin B12 should be given every 4 to 6 weeks. It is wise to take supplements of the fat-soluble vitamins, namely vitamins A, D, E and K.

It is essential to supplement with selenium, vitamin C and vitamin D. These antioxidants have been proven to exert a protective effect against many types of cancers, including bowel cancer.

Raw vegetable juices such as carrot, beetroot, celery, apple, citrus, ginger, spinach, kale, cabbage and any green leafy herbs can speed up healing of the gut lining. Add one teaspoon of ***Ultimate Gut Health*** powder or ***Glutamine*** powder to your juices and smoothies. Try to have this twice daily, but if you are too busy, even once a day will make a big difference.

Raw juices can be made freshly every day with a juice extractor, or you can make a week's supply and freeze the juice immediately after making it. Freeze in glass jars left over from the supermarket and leave 1 cm (½ inch) of space at the top.

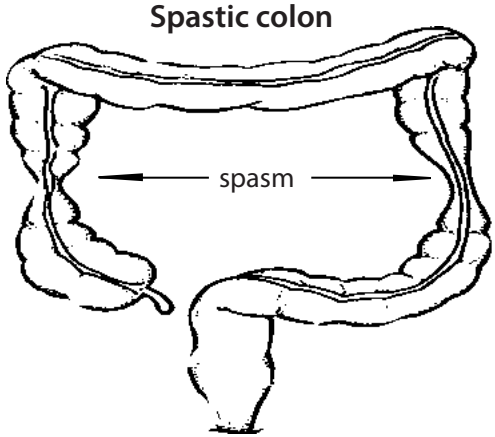
To reduce the risk of cancerous lesions developing in the bowel, it is important to follow a gluten-free diet. I also advise a dairy-free or low-dairy diet.

Bone broth and/or kelp broth are excellent to use regularly if you have inflammatory bowel disease, both for their healing and nutritional benefits.

Some patients have told me that eating green bananas has been helpful in reducing UC and CD symptoms. So this is worth bearing in mind, but I am not sure of the mechanism of action.

3.7 Irritable bowel syndrome (IBS)

This common problem has been known in the past by several different names such as "spastic colon" or "nervous bowel".



Treatment of IBS

- Set aside enough time to eat in a relaxed atmosphere. Think pleasant, positive thoughts while eating and chew your food thoroughly. If you take sufficient time to eat, the digestive enzymes from the salivary glands in your mouth will be able to mix well with the food. Do not eat your food too rapidly because this will tend to cause overeating. It is far better to be a gourmet than a gourmand, and really experience the delicate flavours in every mouthful of your food.
- Do not eat with people who make you feel emotionally disturbed. It may be who you are eating with, rather than what you are eating, that is causing your IBS.
- Do not talk excessively while eating as you may swallow excessive gas with the food, which will cause bloating.
- Avoid drinking large amounts of liquid with the meal, as this will dilute digestive enzymes.
- If you have a weak digestive system, take ***Super Digestive Enzymes*** in the middle of your meal and sip two tablespoons of organic apple cider vinegar diluted in 3 tablespoons of water during the meal.
- Avoid carbonated (fizzy) drinks or chewing gum or mints after eating, as this will increase the gas in your stomach. Avoid excessive intake of alcohol.

- Consult a nutritionist to detect food intolerances/allergies to specific foods. The most common foods to cause IBS are gluten, dairy products, high sugar foods and foods high in FODMAPs. Eliminate gluten-containing foods for 6 months to see if this cures your IBS.
- Try fermented foods or a good probiotic supplement to increase amounts of healthy bacteria in the gut.
- Heal the gut lining with ***Ultimate Gut Health*** powder in a dose of one teaspoon once or twice daily in water or dairy-free milk. You may also find bone broth and/or kelp broth very helpful.

Case history

One of my patients had been a very obese woman or as she said, a "yo-yo dieter." She told me that she had lost more than six hundred pounds in weight over the last 20 years and put more than that back on! She also suffered with bouts of irritable bowel syndrome.

She finally understood the importance of the liver in fat metabolism after reading my books, which allowed her to understand that "oils ain't oils." She started to replace damaged fats like margarine and deep-fried foods with healthy sources of fats such as fish, lean veal, eggs, lamb, hemp and chia seeds, avocados, tahini paste, coconut oil and cold pressed olive oil. She changed her habits from eating heaps of sugary foods to different types of flavours using natural condiments such as fresh garlic, coriander, curry powder, tomato paste, ginger and pesto sauces. She was able to feel satisfied after these foods because she was not on a low-fat diet. Rather she was on the right fat diet, which is why she is now successful in keeping her weight and IBS under control.

Foods that may worsen IBS

- Preserved and processed foods containing high amounts of sugar, artificial colourings, preservatives or flavourings.
- Gluten-containing foods (wheat, rye, barley and oats).
- Lactose intolerance results from a deficiency of the intestinal enzyme called lactase, which is required to break down lactose. If you are lactose intolerant, but cannot live without dairy products, it is possible to obtain cow's milk that is processed to be lactose-free. It is also possible to obtain tablets or drops containing the enzyme lactase, which digests lactose. This can be taken with meals containing dairy products.
- Some types of sweeteners can cause IBS, such as sugar alcohols (sorbitol, lactulose, xylitol, maltitol and erythritol).

- Fructose is the sugar found in all fruits and is used as a sweetener in some soft drinks. If you are intolerant to fructose (fruit sugar) you may find that juices of fruits and/or vegetables cause symptoms of IBS. This is because the juices concentrate the fructose. In this case, you can dilute the juices with water (2 parts water to 1 part juice is a good starting point) or rely on eating the whole fruits and vegetables. The extra fibre from the whole vegetable or fruit is more beneficial than pure juices in sufferers of IBS.
- If you have persistent IBS, try a low FODMAP diet for 8 weeks. FODMAPs are a particular type of fermentable carbohydrates. See list of foods high in FODMAPs at https://www.ibsdiets.org/fodmap-diet/fodmap-food-list/
- Certain vegetables (such as cruciferous vegetables, garlic or onions) may give you unpleasant gas and bloating. This can be avoided by lightly cooking them and then blending them in a food processor, or turning them into an Italian vegetable soup (minestrone).

If you suspect food intolerances, keep a food diary which lists the foods you ate that day and the digestive symptoms experienced afterwards. Do this for 8 weeks and then go back over it; you may find some telltale patterns.

Check the fibre content of your diet

Your diet should be providing 30 to 40 grams of fibre every day. If your diet is currently low in fibre, you should increase your daily fibre intake gradually to allow your intestines to adjust. Otherwise, you may suffer with bloating and excessive gas.

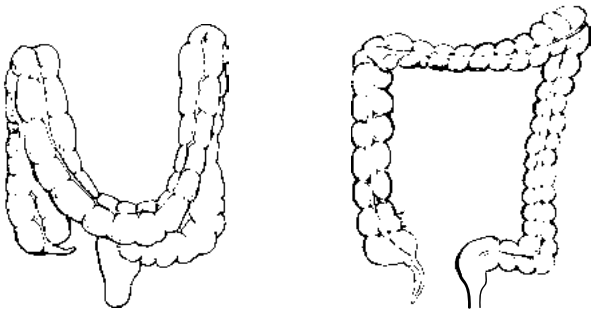
By gradually increasing dietary fibre, you will overcome many of the symptoms of irritable bowel syndrome.

I have had several patients who have complained of excessive gas and bloating after increasing their intake of beans, seeds and raw vegetables. Remember to increase these things very gradually, using only small amounts to begin with. You can also take two tablespoons of organic apple cider vinegar mixed in water and sip it slowly during the meal. Another tip that often works is to use digestive enzymes and apple cider vinegar during the meal.

Many sufferers of IBS do not drink enough water. So make sure to drink extra water in between meals.

For very acute and severe attacks of IBS that can be precipitated by stress or really letting go of your diet, medication may be needed. This may require the use of drugs to stop spasm in the muscles of the bowel (antispasmodics), laxatives for severe constipation, or drugs to stop diarrhoea. You should see your doctor for these things. Self-medication is not advisable. For people with explosive diarrhoea that is hard to control, a small dose (2.5 to 10 mg) of a medication called Amitryptiline taken at night can prevent this.

3.8 Prolapsed colon



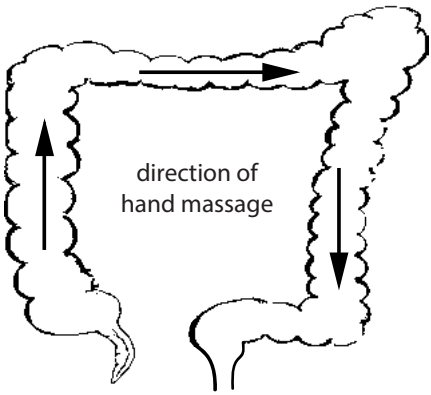
prolapsed colon

healthy colon

A prolapsed colon will put pressure on the lower abdominal and pelvic organs. Weakness of the abdominal muscles and/or excessive fat inside the abdominal cavity will further increase the downward forces upon the colon. The chronically prolapsed colon may become enlarged and twisted, producing extra loops of colon, which is known as redundant bowel. Redundant bowel is useless bowel and acts like a stagnant reservoir for fermentation of faeces. This leads to an increase in unfavourable bacteria in the bowel and absorption of toxins from the bowel into the bloodstream; these toxins are carried back to the liver. This process is known as autointoxication and can cause severe flatulence and chronic ill health.

To reduce this problem, try to follow a regular exercise program including abdominal exercises, brisk walking, swimming, yoga and Pilates. Massage of the abdominal area in the direction of the movement of the faeces can be very helpful if done regularly. Avoidance of constipation is essential and regular colonic irrigations can help a lot.

Massage of abdomen to reduce constipation



3.9 Small intestinal bacterial overgrowth (SIBO)

Small intestinal bacterial overgrowth (SIBO) is defined as an increased number of bacteria in the small intestine. SIBO also encompasses yeast overgrowth such as Candida, but excess bacteria cause the biggest problem. There is not supposed to be a lot of bacteria in your small intestine. This part of your intestine is designed for nutrient digestion and absorption. Most of the bugs in your gut are supposed to live in your colon (large intestine).

The bacteria present in SIBO are not necessarily bad bacteria, like the ones that cause gastroenteritis or food poisoning. The problem is, the bacteria are just in the wrong place.

The fibre in fruits, vegetables, nuts and other plant foods is not digestible by us, but it is digestible by gut bacteria. This is a good thing if it happens in the colon. However, the breakdown of fibre and starch (called fermentation) in the small intestine creates gases and toxins. This can cause bloating, irritable bowel syndrome, diarrhoea or constipation. New research has shown that many cases of irritable bowel syndrome are actually caused by SIBO.

There are other problems with fermentation happening in your small intestine. Fermentation is what occurs when bacteria eat. Along with gases, bacteria and yeast also produce several toxins while they are feeding on the fibres and starches you've eaten. In fact, any food you were not able to digest thoroughly can become food for bacteria and yeast and encourage an overgrowth of these microbes. That's why good digestion is so critical.

The lining of your small intestine is very thin; you may remember that it's only one cell thick. The excess bacteria in the small intestine of someone with SIBO cause inflammatory damage to the lining of the small intestine. The damaged, leaky gut now absorbs those toxins, plus other wastes. They get into your bloodstream and travel straight to your liver. It's not surprising then to learn that SIBO is a strong, contributing factor to liver inflammation and fatty liver.

Symptoms of SIBO

The symptoms of SIBO can vary enormously from person to person. Some people get terrible IBS (irritable bowel syndrome) symptoms, whereas other people get no symptoms at all.

SIBO can cause:

- Nutrient deficiencies, particularly iron deficiency. Deficiencies in B vitamins and vitamin D are also common.
- Muscle cramps, spasms or restless legs syndrome.

- Joint pain and fibromyalgia.
- Fatigue.
- Poor sleep.
- Multiple food sensitivities.
- Inflammation of the liver (raised liver enzymes).
- Skin problems - including eczema, acne rosacea, rashes or itchy skin.
- Refractory coeliac disease (coeliac disease that doesn't resolve on a gluten-free diet).
- Strong sugar or carbohydrate cravings (the excess bacteria and yeast in the small intestine want to be fed).

Causes of SIBO

The following conditions all increase the risk of SIBO:

- Insufficient stomach acid. Your stomach is supposed to be very acidic. Strong acid is a good disinfectant and helps to kill bacteria and prevent them from travelling down into your small intestine.
- Bile from the gallbladder and pancreatic enzyme digestive juices help to prevent excessive bacterial growth in the small intestine. People with pancreatitis usually have SIBO.
- Abnormal anatomy of the small intestine, including bowel adhesions after surgery, bowel strictures (narrowing of the intestines), weight loss surgery including gastric bypass and gastric sleeve.
- Abnormal function of the ileo-caecal valve. This is a valve that separates the large intestine from the small intestine. It is designed to prevent the upwards movement of the contents of the large intestine into the small intestine.
- Abnormalities in intestinal motility. You may have heard of peristalsis. This is the name given to the intestinal contractions that move food through your digestive tract. There is another type of far more subtle motility called cleansing waves, or migrating motor complex. The cleansing waves start in your stomach and they gently sweep undigested food particles, bacteria and other debris from your stomach, through your small intestine and into your large intestine for eventual removal from your body. These cleansing waves are designed to keep your stomach and small intestine relatively free of bacteria compared to your colon. The cleansing waves are activated by cells in your small intestine approximately every 90 minutes, but only occur when your body isn't digesting food. Therefore, they predominantly occur during the night, and also several hours after a meal, provided you haven't had a snack. You are supposed to have approximately nine cleansing waves per day, but studies have shown that some people with SIBO have 70 percent less cleansing

waves than they're supposed to. This makes it much easier for high numbers of bacteria to take up residence in your small intestine, where they shouldn't be. Eating between meals or grazing throughout the day reduces the number of cleansing waves you'll have. That's one of the reasons we recommend you try not to snack. It is best to have three meals a day and let your digestive system rest and cleanse itself between meals.

- Insufficient intestinal secretion of immunoglobulin A (secretory IgA). This is a type of antiseptic paint secreted by the intestinal cells that helps to keep levels of bacteria in check. Deficiencies of IgA are common in patients with autoimmune disease. There is a blood test that can check for this. Probiotics and fermented foods help to increase IgA secretion. Vitamin A supplements can also help.
- Use of stomach acid blocking medication, particularly proton pump inhibitors, to reduce heartburn and reflux. Blocking stomach acid means you lose its disinfectant properties, and some research showed that at least 50 percent of people taking a proton pump inhibitor develop SIBO.
- Diverticulitis increases the risk of SIBO because the bowel pockets become infected with bacteria and act like breeding grounds for harmful bugs.
- Fructose intolerance, FODMAP problems and IBS (irritable bowel syndrome) often go hand in hand with SIBO. Not being able to digest fructose or fermentable fibres properly will leave lots of food for bacteria and yeast to feast on in the small intestine. Therefore, having an intolerance to these foods usually indicates you have SIBO. In most cases, correcting the balance of microbes in your intestines and increasing digestive enzymes improves the ability to digest fructose and FODMAPs.

Testing for SIBO

How can you find out for sure whether or not you have SIBO? There are various tests, but none of them are perfect. The gold standard test involves aspirating (sucking up) some fluid from the small intestine via enteroscopy. That means you'd be sedated while a long tube with a tiny camera and a syringe on the end of it are passed through your mouth, all the way down into your small intestine. The fluid that's obtained then gets cultured and analysed for the types and numbers of bacterial strains. It's not a pleasant test nor reliable test, because some strains of bacteria can't be cultured well in laboratory settings; they tend to die as soon as they're removed from their home. Also, bacteria tend to form a biofilm on the intestinal wall, therefore, not much of that can be obtained from intestinal fluid.

Breath testing for SIBO is a much more popular test. This involves testing the breath for levels of hydrogen and methane. Humans don't manufacture these gases, so if there's too much in your intestines, it can only come from bacterial fermentation of carbohydrates you're not digesting properly. In healthy people, hydrogen and methane-producing bacteria live mostly in the large intestine, therefore, the gases that are produced get expelled as flatus. In a person with SIBO, too much of these bacteria live higher up in the small intestine, therefore, the gases can be measured via a breath test.

There is controversy over which testing method is best - glucose or lactulose. The breath test is not 100 percent reliable. Lactulose breath tests can be difficult to interpret, and glucose tests are good for detecting bacterial overgrowth in the first part of the small intestine, but not so good at detecting bacteria further down towards the large intestine. For this test, you would be given a sugary solution to drink that contains either glucose or lactulose. You'll then be asked to blow into a bag every 15 or 30 minutes, over the course of 1.5 to 3 hours.

Another problem with the breath test is it is good at detecting overgrowth of bacteria that feed on fructose, lactose and sorbitol, but not good at detecting bugs that feed off fructans, mannitol and galactans. These are various fermentable fibres known by the acronym FODMAPs.

SIBO breath tests usually cost around $100. There are various labs in Australia that perform them, including Gastrolab and Stream Diagnostics. Because these tests are not terribly accurate, we recommend you follow a low FODMAP diet, which excludes highly fermentable fibres from your diet. If this diet does not resolve your symptoms, you may consider getting a breath test.

Other clues you may have SIBO

If you're uncertain about whether to get a breath test for SIBO or not, there are other clues that indicate you probably have SIBO. If you have irritable bowel syndrome and feel better after a course of antibiotics, you probably have SIBO. This is because antibiotics can kill off some of the excess bacteria in your intestines. Therefore, some people experience symptom relief for a few weeks, but after that, the bacteria usually grows back unless the underlying cause is addressed.

Another clue is feeling better after a bout of diarrhoea. This does not apply to people who regularly experience diarrhoea as a feature of their autoimmune disease (e.g. Crohn's disease or ulcerative colitis). In people with SIBO, getting a one-off bout of diarrhoea can leave them feeling significantly better in terms of energy level and overall health because the diarrhoea flushes out some of the bacterial overgrowth.

Another clue that you may have SIBO is generally feeling bloated from eating any type of carbohydrate-rich food, and even getting bloated after eating a large serving of vegetables such as broccoli, onion or cabbage.

How to overcome SIBO

The conventional treatment of SIBO involves the use of antibiotics. The most commonly used antibiotics include rifaximin (brand name Xifaxan), vancomycin (brand name Vancocin), metronidazole (brand name Flagyl) and neomycin (brand name Neosulf). Neomycin is usually only added to the mix in people who suffer with constipation, because it's good for stimulating intestinal contractions. All of these

antibiotics mostly stay in the intestines. They are not absorbed into the bloodstream in significant quantities.

We do not recommend you use antibiotics to overcome SIBO. Antibiotics can have harmful side effects, particularly to the liver and kidneys, and can wipe out the good bacteria in your gut, leaving you more prone to infections by pathogenic bacteria. The other problem with antibiotic treatment of SIBO is the benefits are only short-lived. In the vast majority of cases, the treatment is only effective for several weeks to months. One study showed that successful antibiotic treatment of SIBO only lasted for 22 days! To get around this, some doctors are recommending continuous antibiotic use for their patients. This is definitely not what we'd recommend.

Natural remedies for overcoming SIBO

An interesting article was published in the medical journal Global Advances in Health and Medicine called Herbal Therapy is Equivalent to Rifaximin for Small Intestinal Bacterial Overgrowth. The conclusion to the study read: "Herbal therapies are at least as effective as rifaximin for resolution of SIBO by lactulose breath testing."

We agree with that outcome. Herbal remedies are much safer and just as effective as antibiotics in the eradication of SIBO.

The most beneficial herbs include:

- oregano oil
- clove oil
- berberine
- peppermint oil
- garlic
- thyme oil
- coconut oil

You can find these herbs and essential oils in supplement form. ***BactoClear*** enteric-coated capsules contain oregano oil, thyme oil and clove oil, as well as the herb phellodendron, which is high in berberine. These herbal extracts work together to help reduce overgrowth of bacteria and yeast in the intestines. Essential oils work best when they are in enteric-coated capsules, so they don't dissolve until they get to your small intestine.

Ozone water - Buy a machine for making ozone water at home and drink 4 to 10 glasses daily. Ozone is a powerful antibiotic.

Diet for SIBO eradication

Changing your diet is critical if you want to overcome SIBO for good. The aim here is to starve the bacteria and yeast of their food supply so they can die off. Some physicians recommend an elemental diet for the treatment of SIBO. Elemental diets are liquid preparations of predigested food. They are often used in hospitals to feed patients who are unconscious or not able to eat regular foods. They are a bit like meal replacements, but all the nutrients have been broken down into their building blocks so they don't require any work to digest. This also means the nutrients are absorbed rapidly, so they aren't given a chance to feed bacteria in the small intestine; therefore, the bacteria die.

There are lots of problems with elemental diets though:

- The preparations are expensive.
- They generally taste terrible.
- They contain dodgy ingredients like high fructose corn syrup, vegetable oil and genetically-modified ingredients.
- They are generally only recommended to be used for two to four weeks and it takes longer than that to eradicate SIBO.

Elemental diets can sometimes be necessary or even lifesaving, particularly in people with Crohn's disease or ulcerative colitis, where the intestines are extremely inflamed and damaged.

Fortunately, in the vast majority of cases, SIBO can be corrected with a low FODMAP, low starch diet and herbal antimicrobials.

For a free and excellent guide to a low FODMAP diet visit https://dietingwellfodmap.com/low-fodmap-diet-meal-plan-menu/

3.10 Yeast infection

You may have a yeast or fungal overgrowth and sometimes this is a bigger problem than bacterial overgrowth. Conventional medicine doesn't have any safe and effective treatments.

Symptoms that indicate you may have a yeast infection include:

- fatigue
- abdominal bloating
- thrush or vaginal itching or anal itching

- itchy ears (inside the ears)
- frequent bladder infections or irritation of the bladder where no infection can be found
- foggy head and inability to concentrate
- a history of frequent use of antibiotics, oral contraceptives or steroids
- fungal nail infections
- strong cravings for sugar and/or high carbohydrate foods

There aren't any reliable tests for checking for a subtle yeast infection. Blood tests and stool tests aren't very accurate because we all have some yeast in our bodies; it's only a problem if yeast grows in excessively high numbers. If you suffer with several of the symptoms in the list above, there's a good chance you have yeast overgrowth.

Conventional treatment of a yeast infection

If conventional medicine recognises a yeast infection, prescription antifungal drugs are usually recommended. Nystatin is a commonly used antifungal. The good thing about Nystatin is it doesn't have any harmful side effects because it remains in the gut and is not absorbed into your bloodstream. Therefore, it can be good for killing off excessive yeast like Candida in the gut. Unfortunately, many fungal organisms are resistant to Nystatin, so it's often not very effective.

There are stronger medications that have the ability to kill yeast. Some examples include Diflucan, Sporonox and Lamasil. Unfortunately, these drugs are very toxic to the liver. Anyone who takes them needs to have a blood test called a liver function test approximately every 6 weeks to make sure they are not damaging the liver. Some patients feel dramatically better after a course of one of these antifungal drugs, but we do not recommend them. There are far safer ways of helping your body to beat a yeast infection.

Natural ways of overcoming a yeast infection

Avoid consuming sugar, gluten, grains, dairy products and any foods to which you have a sensitivity.

There are several herbs and essential oils with natural antifungal properties; these include oregano oil, garlic, berberine, thyme oil, garlic and clove oil. We recommend ***BactoClear*** capsules. I also recommend drinking ozone water.

Coconut oil has antifungal properties and research has shown it is quite effective at killing Candida. It is a type of beneficial fat called lauric acid, found in coconut oil that is antimicrobial and effective at killing several different pathogens. Coconut oil also has the ability to kill Helicobacter pylori, which is the bacteria that is linked with stomach

ulcers and stomach cancer. If you want good overall health, include some coconut oil in your diet each day. You can cook with it, add it to smoothies or just eat it straight off the spoon.

Saccharomyces boulardii

Saccharomyces boulardii is a type of beneficial, non-pathogenic yeast originally isolated from the surface of lychee nuts. It is widely used around the world to treat diarrhoea, but is effective for a range of digestive problems. Treatment with Saccharomyces boulardii is commonly called "yeast against yeast", because it is a good yeast that is able to clear bad yeast (and bacteria) out of the gut. Clinical trials have shown the effectiveness of S. boulardii in the treatment and prevention of diarrhoea caused by Clostridium difficile, antibiotic-induced diarrhoea and traveller's diarrhoea. S. boulardii also has the ability to increase secretory IgA production in the gut. Secretory IgA acts like an antiseptic paint; helping to protect the gut from infection and invasion. It also helps to maintain gut barrier function, and improves leaky gut. S. boulardii is the probiotic found in the ***Ultimate Gut Health*** powder.

3.11 Helicobacter pylori

Helicobacter pylori (H. pylori) is a spiral-shaped bacterium which commonly infects the stomach. Autopsy reports in 1938 found that not less than 40 percent of human stomachs were found to be invaded by spiral organisms. H. pylori has co-evolved with humans for approximately 58,000 years, so we are talking about an old parasite! Approximately two-thirds of the world's population is infected with H. pylori, but in most it does not cause disease or indeed any symptoms or problematic signs. The most likely reason that H. pylori does not cause disease in most people is that these resistant people produce adequate amounts of acid in their stomach. Adequate stomach acid keeps the amount of H. pylori bacteria low. Other researchers hypothesise that some strains of H. pylori are harmless or even beneficial. H. pylori is a curious bacterium, because unlike most harmful bacteria, H. pylori usually colonises the host for life, unless antibiotic treatment is given.

How can I catch H. pylori infection?

H. pylori has been found and cultured from the saliva and mouth and thus, there is a possibility that H. pylori may be transmitted from an infected person to a non-infected person via kissing or other sexual activities such as orogenital sex.

The exact way H. pylori infects an individual is still unknown, but we know it may be passed from person to person through direct contact with saliva, vomit or faeces. H. pylori may also be spread through contaminated water and food. In developing

countries, a combination of untreated water, crowded conditions and poor hygiene contributes to higher rates of H. pylori infection.

Treatment of H. pylori

It is important to treat infection with H. pylori, because it is proven to cause cancer and is classified as a group I carcinogen by the International Agency for Research on Cancer. It can cause stomach cancer and MALT lymphoma. It is also a common cause of ulcers in the stomach and duodenum (peptic ulcers). These ulcers can bleed or perforate, which can be fatal.

The most effective treatment for H. pylori has still not been categorically defined for all patients. This is partly because in different geographical areas the rates and types of antibiotic resistance vary. To try to overcome the lack of effectiveness of antibiotics, different antibiotic schedules have been tried; these vary from quadruple therapy and triple therapy to sequential therapy.

Quadruple therapy utilises a combination of a proton pump inhibitor (PPI), bismuth subsalicylate, metronidazole and tetracycline for 14 days. Triple therapy utilises a combination of PPI, amoxicillin and clarithromycin for 14 days. Sequential therapy begins with amoxicillin plus a PPI for the first 5 days, and finishes with triple therapy including a PPI, clarithromycin and tinidazole. There can be a lot of side effects from these drugs and some patients abandon treatment before the 14 days are up.

A study reported in the American Journal of Gastroenterology in 1993, found that the rate of recurrence after successful H. pylori eradication with drugs was low, and that when reinfection takes place, it occurs most commonly within the first year after treatment. However, H. pylori resistance to these antibiotics is unfortunately increasing.

Furthermore, these antibiotics can easily lead to overgrowth of the yeast Candida in the gut.

H. pylori is a parasite and can recur if you:

- have low stomach acid
- eat a lot of foods high in sugar
- have deficiencies of selenium, zinc and vitamin C

You do not want to stay on antibiotics forever because they may create new problems for you such as Candida, dysbiosis, allergies or liver problems. This is why nutritional medicine is so important in the treatment of chronic infections such as H. pylori.

Naturopathic treatments for Helicobacter pylori

- Probiotics and fermented foods
- Green tea
- Honey – especially Manuka
- Drinking daily freshly made ozone water
- Olive oil – must be virgin and cold pressed
- Raw coconut, which must be eaten fresh
- Organic coconut oil
- Helpful supplements - ***selenium*** 150 mcg daily, zinc 15 mg daily, ***vitamin C*** 1000 mg daily and ***N-Acetyl-Cysteine (NAC)*** 600 mg capsules 1 or 2 twice daily
- Broccoli sprouts – recommend Super Sprout brand
- ***BactoClear*** 1 to 2 capsules twice daily
- Apple cider vinegar in middle of meals – must be organic with the mother
- Supplements of ***Betaine HCL*** capsules, one to two capsules in the middle of meals. These release hydrochloric acid in the stomach

If you have Small intestinal bacterial overgrowth (SIBO) see here.

Testing for H. pylori

The tests to determine if you have an infection with Helicobacter pylori are the urea breath test and the stool antigen test. It is important to retest 2 months after treatment is finished. I also think it is wise to retest after 6 and 12 months.

3.12 Gastro-oesophageal reflux disease (GORD)

GORD is caused by the acid contents of the stomach regurgitating or flowing backwards into the oesophagus. Gastritis is often associated with GORD and the treatment of gastritis is the same as that for GORD. Gastritis is inflammation of the inner lining of the stomach. If the oesophagus becomes inflamed by the acid reflux, this is called oesophagitis.

The conventional treatment of GORD uses medications to block stomach acid production, and the most commonly used drugs are proton pump inhibitors (PPIs) and H2 blockers. Proton pump inhibitors are some of the most widely prescribed drugs in the world and some common brands include Losec, Zoton, Nexium, Pariet and Prevacid.

There may be side effects from long-term use of acid-blocking drugs. They include:

- an increased risk of developing osteoporosis (bone loss) and bone fractures
- increased risk of several types of serious infections in your body
- small intestinal bacterial overgrowth (SIBO)
- impaired absorption of essential minerals (such as magnesium, zinc and calcium) and vitamins
- permanent kidney damage
- an increased risk of dementia
- an increased risk of vitamin B12 deficiency with serious consequences

You can see why taking these acid-blocking drugs long term requires careful supervision and regular testing for side effects. Some people cannot live without these acid blocking drugs, as they have disabling severe symptoms. If that's your case, then don't worry. Just get regular check-ups for your kidneys, liver, vitamin B12 and bones. If you do stay on these drugs long term, make sure you take some acid in the middle of your meals, otherwise you will suffer from deficiencies. You can take ***Betaine HCL*** capsules in a dose of one to two capsules in the middle of every meal to release hydrochloric acid in the stomach for digestion.

Proton pump inhibitor drugs are prescribed to patients with Barrett's oesophagus in order to reduce the risk of oesophageal cancer. A 2017 literary review and meta-analysis has just shown they're not actually effective at that.

The good news is that natural therapies can often bring great relief to sufferers of GORD, heartburn, peptic ulcers and Helicobacter pylori infections.

These natural therapies include:

- If you are overweight, it is vital to lose weight. The best way to do this is with a diet low in carbohydrates. A trial of a diet with less than 50 g of carbohydrates daily is most worthwhile. Intermittent fasting for 12 to 48 hours can also work wonders.
- Meal sizes should be small, as large meals increase pressure inside the stomach. Avoid deep-fried foods, excessive coffee and alcohol, and preserved foods. Increase intake of vegetables and protein. Do not drink excess fluids with your meals and confine your fluid intake to inbetween meals. Do not eat food during the 3 hours before retiring to bed. It is wise to drink alkaline beverages during this time such as herbal teas or celery, mint, cucumber and carrot juice. You can also purchase a water filter that makes alkaline water to reduce gut acidity.
- Elevate the top of your bed by placing blocks under the head of the bed, or purchase an electric bed with an adjustable slope angle.
- Avoid tight-fitting clothes around the middle and do not bend over after meals.

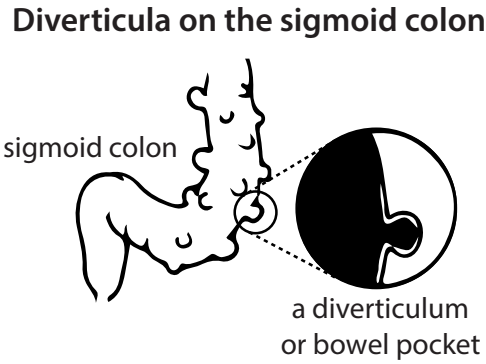
- Raw green juices or green smoothies can help to soothe and alkalinise the stomach in between meals. Include green apples, celery, cucumber, mint, parsley, fennel and carrot.
- Increase stomach acid during meal times. Yes you heard right – increase stomach acid! You can do this with one or two capsules of ***Betaine HCL*** taken in the middle of meals. Capsules are available that combine pepsin enzyme with ***Betaine HCL***. Another way to boost desirable acid production during a meal is to use organic apple cider vinegar with the mother in it; drink 1 to 2 tablespoons during the middle of the meal.
- Reduce small intestinal bacterial overgrowth (SIBO), as this aggravates GORD. The natural antibiotic called ***BactoClear*** in a dose of one to two capsules twice daily is most helpful and can be taken long term if needed.
- Some doctors prescribe a 4-week course of the antibiotic drug called Rifaximin to kill off the bacterial overgrowth. Rifaximin is an antibiotic that fights bacterial infection only in the intestines. Rifaximin works differently from other antibiotics because it passes through your stomach and into your intestines without being absorbed into your bloodstream. Rifaximin can work well, but the overgrowth of bad bacteria can recur if you resume eating sugar. ***BactoClear*** is good to take after the Rifaximin is finished.
- Ask your doctor to test if you have an infection with Helicobacter pylori in your stomach, and if present have it treated.
- Strengthen the muscle called the lower oesophageal sphincter (LOS) that stops stomach acid from refluxing upwards into the oesophagus. This can be done with magnesium powder (such as ***Magnesium Ultra Potent***) in a dose of ½ teaspoon twice daily in water. Doing yoga, Pilates and abdominal exercises can also reduce reflux.
- Take ***Ultimate Gut Health*** powder twice daily in water or vegetable juice to heal the inflamed lining of the stomach and oesophagus. Eat bone broth or kelp broth several times a week to help heal and protect the gut lining.
- ***Selenium*** is an essential daily supplement for those with chronic reflux and/or gastritis, because it is a powerful antioxidant that helps to prevent cancerous changes in the stomach and oesophagus.
- Improve gut bacteria by eating fermented foods or taking a probiotic.
- Try herbal teas – such as chamomile, marshmallow, alfalfa, meadowsweet, golden seal and licorice root.
- Drink more water inbetween meals. If you have acidity in your stomach, try drinking alkaline hydrogen water, which can be made with a specialised water filter.

Quick relief of GORD

If you get an acute attack of heartburn, it is effective to use an antacid preparation for quick relief. Gaviscon is effective, safe and non-toxic, and can bring quick relief. Other safe antacids include potassium or sodium bicarbonate, magnesium carbonate or magnesium hydroxide.

3.13 Diverticulosis and diverticulitis

Diverticulosis occurs when tiny defects in the muscle of the wall of the large intestine (colon) allow small pockets or pouches (diverticula) to develop; this occurs gradually over many years. Diverticulitis is the infection and/or inflammation of these pouches. Together, these conditions are called diverticular disease.



Excessive use of strong laxatives in those with chronic constipation can cause diverticula, because these drugs lead to excessive colonic contractions and high internal bowel pressures.

Sometimes faeces or food particles can become trapped inside these bowel pockets, and then bacteria start to cause fermentation and putrefaction. This can lead to unpleasant flatulence, abdominal swelling and cramps. If the bowel pocket becomes very inflamed and/or infected, the condition of diverticulitis occurs. The bowel pocket may leak toxins and bacteria into the normally sterile abdominal cavity, which causes peritonitis. Symptoms of fever, nausea, vomiting and severe abdominal pain, particularly in the lower abdomen, may occur and admission to hospital becomes essential. Treatment with strong antibiotics, intravenous fluids and fasting is required.

Treatment of diverticulosis

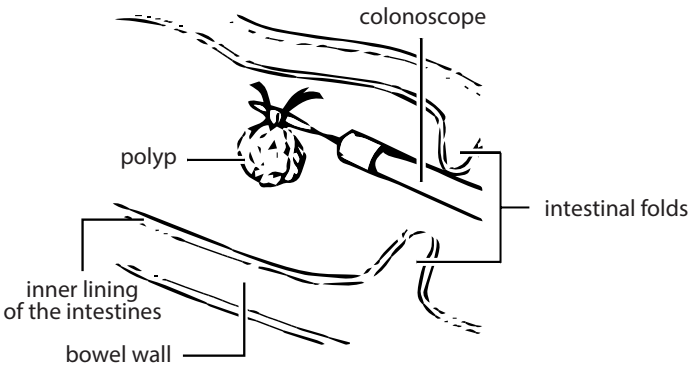
- Avoid foods containing small nuts and seeds, as these small hard things can become trapped inside the bowel pockets. Seeds and nuts are very healthy and you may still enjoy them if you take the time to grind them into a fine powder in a coffee grinder or food processor. In this powder form they will not aggravate diverticulosis, and indeed should help the condition by boosting dietary fibre. Chia seeds and hemp seeds can be well tolerated, and once they are softened by mixing with a liquid such as water or coconut milk, they can be very beneficial for the bowels. Eat them regularly and see the difference, you will be impressed! There is no need to grind chia or hemp seeds.
- Some sufferers find avoiding legumes (peas, beans and lentils), tomatoes and sweet corn also helps, and trial and error is required.
- ***Fibretone*** powder can be taken in a dose of 2 to 3 teaspoons daily to strengthen the bowel wall and reduce constipation.
- If enjoyed, animal meats can be eaten, but should be very fresh, very well-cooked and eaten in small amounts only. Red meat is probably safer than chicken, as chicken can contain more bacteria, unless it is extremely fresh and very thoroughly cooked.
- Drink plenty of pure water inbetween your meals, as this will greatly reduce symptoms. I highly recommend you drink ozone water.
- Have smaller frequent meals with plenty of raw and cooked vegetables. Raw vegetables and fruits can be blended into a smoothie. Good fruits to eat are papaya, mangoes, pineapple, apples, pears, citrus and stone fruits. You may find symptoms reduce if you eat your vegetables finely chopped or grated. It is even better if you can afford to purchase a high-powered food processor such as a Vitamix or Thermomix.
- Improve the number of healthy bacteria in the colon by eating fermented foods.
- Take a ***magnesium*** powder regularly to strengthen the muscle in the bowel wall and to reduce constipation.
- Surgery may be required to remove bowel segments that are badly affected by diverticula, especially if attacks become frequent and severe. This can be very effective, and indeed may be lifesaving, and should be done by a surgeon who specialises in surgery of the large bowel (colon).

Diverticulitis can be very serious, requiring immediate admission to hospital to prevent severe infection (peritonitis or septicaemia can occur). Mild attacks can be treated at home with fasting, increased water intake and antibiotic drugs, but should always be monitored frequently by a doctor.

3.14 Bowel polyps

Polyps are a growth of tissue that develops on the inner lining of the intestines.

Removing a bowel polyp through a colonoscope



How do doctors treat bowel polyps?

If your doctor has discovered polyps in your colon, they will be removed and checked to determine if they are precancerous.

Strategies to prevent bowel polyps

- Eat lots of vegetables. Vegetables are an excellent source of fibre that are not harsh and scratchy to the bowel wall. Some people do not tolerate grains well, yet vegetables are easy to digest and they provide valuable bulk to the stool. It is very important to keep your bowel moving each day. The longer the faeces are allowed to stay in contact with your bowel wall, the greater the risk that polyps will form.
- If you struggle with constipation, you may need help from a gentle bulking and gluten-free laxative like ***Fibretone***. The ingredients in ***Fibretone*** help to sweep the colon clean, are not habit-forming, and will not weaken your bowel. Chia and hemp seeds are also excellent for those with constipation and should be eaten regularly. ***Magnesium*** powder is excellent for constipation and is not habit-forming.
- Try to avoid sitting for long periods of time. Many of us have a job where we must sit all day, and that is unavoidable. Try to go for a walk before or after work, and try to make your weekends active. The exercise doesn't have to be strenuous; it just has to be regular. This will help all bowel problems.

- Make sure you have optimal levels of ***vitamin D*** and ***selenium*** in your body. Take a ***selenium*** supplement in a dose of 150 to 200 mcg daily because it has powerful anticancer effects. ***Selenium*** can help to prevent bowel polyps. Many people need more than 1,000 IU of ***vitamin D*** daily, and you want your blood levels of vitamin D to be at the upper end of the normal range. ***Vitamin D*** has cancer-preventative properties.

3.15 Bowel cancer

Cancer of the colon or rectum (known as colorectal cancer or CRC) is a very common cancer with around 1 in 20 persons being affected. CRC is second only to lung cancer in terms of mortality rates. The incidence of CRC in Australia is one of the highest in the world. The good news is that bowel cancer is one of the most curable types of cancer, if it is diagnosed early before it has spread beyond the bowel. If this is the case, the 5 year survival rate is 90 percent.

Colorectal cancer (CRC) typically does not produce any symptoms or signs in its early stages, and has often been growing slowly for years before it is diagnosed. When symptoms and signs begin, they may consist of bleeding from the rectum, a change in bowel patterns (constipation, diarrhoea, urgency), abdominal discomfort, iron deficiency anaemia or weight loss.

Early detection of bowel cancer

This requires screening of the general population and surveillance of high-risk patients.

Screening of the general population for bowel cancer ideally should start at age 50 and should be done every 2 years.

Screening tests the stool for hidden blood (faecal occult blood test or FOBT). Although this is not 100 percent accurate, the FOBT is currently the most accepted free screening test for bowel cancer. You will be sent a FOBT kit in the mail. If the FOBT is positive for blood, your local doctor will refer you for a colonoscopy.

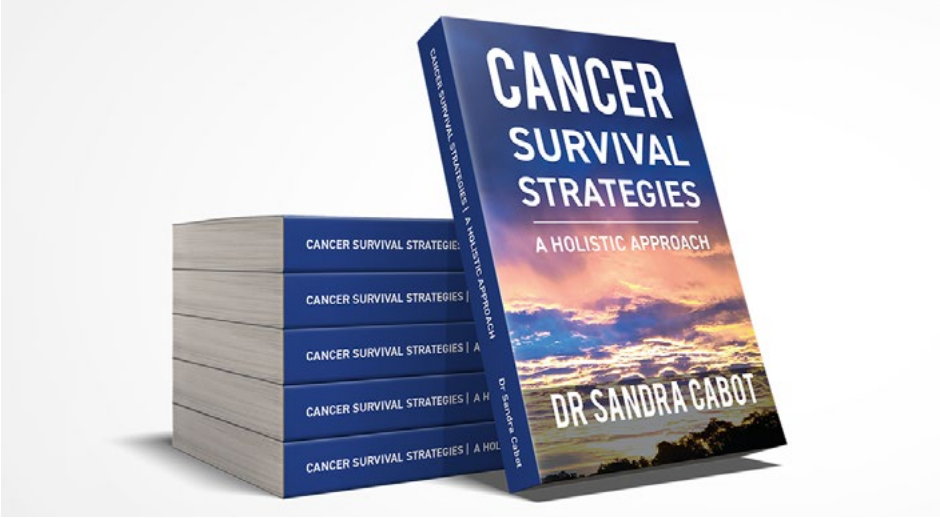
Bowel cancer survival strategies

- Consume easily digested foods such as vegetable soups, pureed vegetables and raw vegetable juices. Suitable juices are beetroot, carrot, mint, parsley, celery, apple, citrus, kale and cabbage. Do not overdo the amount of fruit and approximately 20 percent of the juice should be made from fruit and 80 percent from vegetables. The juices can be diluted 50 percent with water if desired. Drink around 500 ml of this juice mixture daily. Protein powder supplements from whey, pea, or hemp protein are beneficial for those with weak digestion and poor appetite. These powders can

be added to smoothies made with almond milk, coconut milk or sugar-free Greek yoghurt. Green smoothies are excellent and provide easily-digested sources of cancer-fighting nutrients.

- Eat fish at least 3 times a week, such as sardines, mackerel, trout, salmon and tuna (canned varieties are acceptable).
- Try to eat a wide variety of green leafy vegetables; prepare them raw, stir-fried or lightly steamed. The cruciferous vegetables (broccoli, cauliflower, kale, Brussels sprouts and cabbage), as well as broccoli sprouts powder (such as Super Sprout's brand) have proven anticancer properties.
- Consume a low-sugar diet, as sugar feeds most types of cancer cells. The only sugar that should be consumed is that found in fruit. Do not eat excessive amounts of fruit, as this provides too much sugar which can feed the growth of the cancer. The best fruits to consume are citrus, kiwi, passionfruit and berries as they are lower in sugar. Cancer cells have a much higher requirement for glucose than healthy cells, and most types of cancer cells cannot grow without sugar. It is possible to starve cancer cells if you do not eat any sugar.
- It is essential to take supplements of ***selenium*** in a dose of 150 to 200 mcg daily, and ***vitamin D*** 2,000 to 5,000 IU daily. You want your blood vitamin D levels to be at the upper limit of the normal range.
- Drink ozone water to oxygenate your colon.

See my book ***"Cancer Survival Strategies - A Holistic Approach"***.



If you have any questions regarding your health or any of the recommendations in this ebook, call our health advisory service at +61 2 4655 4666 or send us an email at contact@sandracabot.com

4. PARASITES THAT INFECT HUMANS

We often don't think parasites can be a big risk to ourselves and indeed it's not appealing to think about, especially when you are eating! However parasitic infections are very common and most of the time, these infections go unnoticed. A high percentage of people throughout the world live with a worm or other parasite. As close as we may be with these organisms, they are not symbiotic and they can cause awful diseases, as well as nightmares.

Parasitic infections must always be taken seriously!

- Over one billion people worldwide are infected with parasites.
- Most infected people do not know they have parasites.
- Some of these parasites can grow to 2.5 metres long inside your gut.
- Some of these parasites can live for 30 years in your gut.
- Some worms can invade our central nervous system (brain and spinal cord).
- These parasites can steal your nutrients and make you tired.

The most important thing to have is an awareness of these diseases, so you can prevent them. Meticulous hand washing with soapy water (and ideally wearing gloves when preparing food), thorough washing of fruits and vegetables, and proper cooking of meats are vital strategies to lower your risk of catching these spooky parasites. Washing your food produce with fresly made ozone water will kill most parasites.

Let's look at these parasites up close:

4.1 Protozoa

Protozoa are microscopic, single-celled organisms which reproduce very rapidly in the intestines. They can spread to other organs such as the liver, pancreas, lungs and heart. Protozoa have an indefinite lifespan.

Examples of protozoa include:

- **Giardia lamblia.** This is a protozoon which is transmitted through water, food and contact with faeces and infects the small intestines. Giardia may not cause any symptoms but can also cause diarrhoea, bad-smelling stools, nausea, abdominal cramps, bloating, gas and weight loss.
- **Cryptosporidium and cyclospora** are transmitted by contact with infected human faeces or water. They may not cause any symptoms or can produce watery diarrhoea, nausea, cramps and fever. They are common in travellers and are spread by contaminated water, faeces, fruits and basil.
- **Entamoeba histolytica.** This is spread through water, food, flies and cockroaches. It may take up to 3 months after infection before symptoms appear, and in many cases infected carriers have no symptoms. It can spread through the digestive tract and travel to other organs, causing stomach pain, diarrhoea and low-grade fever.
- **Toxoplasma gondii.** This is an infection that is usually transmitted from cats. A less common source of transmission of toxoplasma is undercooked meat. Symptoms include flu-like symptoms such as fever, headache, swollen lymph nodes (glands), and lethargy.

- **Trichomonas vaginalis.** This is transmitted through sexual contact or from contaminated toilet seats, towels, spas or bathwater. There are often no symptoms, however it can cause vaginal discharge and odour, painful urination, enlargement of the prostate gland and urinary tract inflammation.
- **Blastocystis hominis.** This is a protozoan found in the large intestine in humans and is the most common parasite found in human stool samples. There is a higher prevalence in developing countries (50 percent) than developed countries (about 10 percent). It can cause symptomatic infection in humans but is more commonly present with no symptoms. Infection with this parasite can lead to a range of symptoms, including watery diarrhoea, abdominal pain, perianal pruritus (itch) and excessive flatulence.
- **Dientamoeba fragilis.** This is a very common parasite worldwide and is second only to Blastocystis species in infecting humans. Dientamoeba fragilis is a protozoan parasite of the human gastrointestinal tract that has remained controversial regarding its ability to cause disease; however, many reports continue to be published regarding an association between this organism and human illness. Older laboratory diagnostic tests are quite insensitive in terms of Dientamoeba fragilis identification. The use of new diagnostic tests has improved the detection of D. fragilis in clinical stool specimens and supports its potential role in human disease. The permanent-stained smear is the best test to confirm the diagnosis.

Human to human transmission from infected faeces is generally considered the most common route of infection.

4.2 Roundworms and hookworms

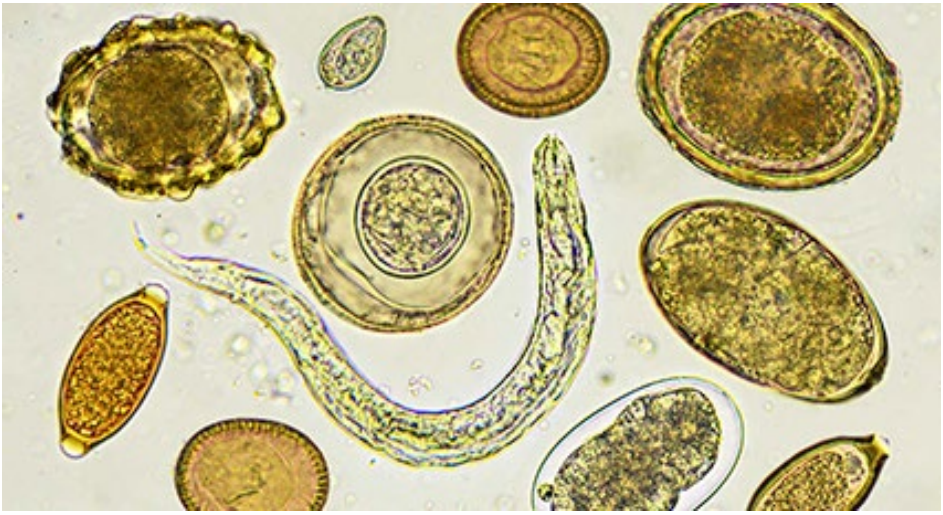
These are unsegmented worms which produce eggs that need incubation in soil or in another host before becoming potentially infective to humans.

- **Roundworm (Ascaris lumbricoides)** infects over one billion people in the world and often produces no symptoms or signs. The source of infection is contamination of soil and vegetables with faeces. Adult roundworms reside in the small intestines and can exit through the mouth or nose of the infected person. Occasionally, they can cause obstruction of the pancreatic or bile duct, appendix or small intestines with severe symptoms. Infection may cause a cough, fever and sleep disturbances.
- **Roundworm (Strongyloides stercoralis)** infects humans and sometimes infects primates, dogs and cats. Some dog and primate-infecting strains have been shown to be capable of causing human infection.
  Strongyloidiasis is transmitted through direct penetration of the skin by infective larvae when in contact with soil. Walking barefoot is a major risk factor for becoming infected with this roundworm. It is estimated that 370 million people worldwide are infected with S. stercoralis. Strongyloidiasis is endemic in tropical and subtropical regions of the world and in Australia. Strongyloidiasis should be considered in residents of endemic areas, immigrants, refugees and war veterans (World War II and Vietnam War).
  Patients who are about to be given immunosuppressive therapy (especially corticosteroids and chemotherapy), and organ transplant recipients should be tested first, as this can cause the - sometimes fatal - hyperinfective syndrome. Strongyloides hyperinfection syndrome and disseminated strongyloidiasis can have case fatality rates that approach 90 percent. The symptoms are the result of the

parasite's larval form migrating through various organs of the body.
The initial signs of strongyloidiasis infection, if noticed at all, include a localised itchy, red rash at the site of skin penetration. Patients may then develop a dry cough, as the larvae migrate from the lungs up through the trachea. After the larvae are swallowed into the gastrointestinal tract, patients may experience changes in bowel actions, abdominal pain and loss of appetite.
Strongyloides may cause chronic hives (urticaria) and a recurrent, winding, red lumpy rash along the buttocks, perineum and thighs.
Blood tests may show elevation of a type of blood cell known as eosinophils or elevated IgE levels.

- **Hookworm (Necator americanus)** is transmitted through unbroken skin by walking barefoot. Hookworms travel into the blood and through the lungs and intestines. Hookworm infection usually does not cause any symptoms, although there may be an allergy-like, itchy rash at the area of skin penetration. The worms attach to and suck the blood from the lining of the small intestines, causing digestive problems, anaemia and fatigue.
- **Pinworm (Enterobius vermicularis)** infection is common and is transmitted through contaminated food and water. The worms live in the lower intestines near the rectum and travel at night outside to the skin around the anus. From there, it can be transmitted through person-to-person contact. It may not cause any symptoms, however itching at night around the anus is common. One method of diagnosis is to apply sticky tape to the anal area at night. When the tape is removed, adult worms may be seen with the unaided eye. Do this test 5 to 7 times to rule out infection.
- **Whipworm (Trichuris trichiura)** is a parasite of the large intestine that rarely produces any symptoms. It is transmitted by ingestion of the eggs which reside in soil or on vegetables. Heavy infection can cause diarrhoea, abdominal pain, rectal prolapse and stunted growth.
- **Trichinella (Trichinella spiralis)** infection can occur from eating undercooked pork. Worms travel from the intestines into the muscles of the upper arms, chest, diaphragm and jaws. Symptoms can include diarrhoea, nausea, severe muscle pain, facial swelling, difficulty breathing, painful chewing and enlarged lymph nodes (glands).

4.3 Tapeworms



Tapeworms are flat, segmented and shaped like ribbons, and can grow to very large lengths. Tapeworm larvae can be found in undercooked meat or fish. From the larvae, the worms grow, develop and attach to the small intestine. The tapeworm lives in the small intestine by absorbing nutrients from ingested foods. Tapeworm infection often produces no symptoms, but nutritional deficiencies may arise, as it steals nutrients from the host.

Tapeworms can steal our nutrients, block our intestines and take up space in our organs. A tapeworm cyst can lodge in the brain, eye, liver and other parts of the body.

- **Pork tapeworm (Taenia solium)** infection occurs after eating undercooked pork, smoked ham or sausages containing larvae. Adult worms attach to the intestines and may cause symptoms similar to infection with beef tapeworm. Larvae can travel to areas under the skin, the muscles, the brain and spinal cord and the eyes, where they eventually form cysts. These cysts cause an inflammatory response, which may take 4 or 5 years to occur. This can result in blindness, seizures, neurological deficits and hydrocephalus (swelling of the head).
- **Beef tapeworm (Taenia saginata)** infection occurs after eating undercooked beef containing the larvae. It can live in the intestines for up to 25 years and grow to a huge length of up to 2.5 metres. It often causes no symptoms but occasionally presents as abdominal pain, loss of appetite, weight loss and diarrhoea. Segments of the worm can crawl out of the anus.

- **Fish tapeworm (Diphyllobothrium latum)** infection occurs from consuming freshwater fish containing larvae. Fish tapeworm can grow to 15 metres in length. Symptoms can include loss of appetite, indigestion, weight loss and diarrhoea. Deficiencies of vitamin B12 and iron can arise. Neurological symptoms such as muscle twitches may occur.
- **Clonorchis sinensis** is another worm transmitted by eating raw fish. These worms live in the gallbladder and can cause stones in the bile ducts and gallbladder.

4.4 Flukes

Trematodes, or flukes, have an enormous impact on the health of humans and infect over 200 million people worldwide. Flukes are flatworms and are leaf-shaped and attach to the host using abdominal suckers. It usually begins its life cycle in snails as larvae that then infect fish, vegetation or humans. Flatworms can travel to the lungs, intestines, bile ducts, heart, brain and liver.

- **Intestinal fluke (Fasciolopsis buski)** are worms that live in the small intestines and can cause intestinal ulcers and allergic reactions. Symptoms include vomiting, diarrhoea and stomach pain. Infection with intestinal fluke arises from eating infected-water vegetables, such as water chestnuts, bamboo shoots and watercress.
- **Sheep liver fluke (Fasciola hepatica)** is most commonly transmitted from fresh watercress. The worm attaches to the gallbladder and bile ducts, causing inflammation and local trauma. Symptoms include jaundice, fever, coughing, vomiting and abdominal pain. Cancer of the bile ducts may also occur.

- **Paragonimus** is a parasitic fluke (flatworm) and after being eaten it can travel to other parts of the body and cause low fever, fatigue, cough, abdominal pain and muscle pain. The parasite can travel to other organs, especially the lungs, but also rarely the liver or heart. In the lungs, the parasite can cause a cough with blood-stained mucus. Over 20 million people are believed to be infected worldwide. Most cases are found in Asia, but it can also be found in Africa and the Americas.
  The drug Praziquantel is an effective treatment; however, the disease is often found late, when it already has damaged the liver or other organs, and that damage can't be undone.
- **Schistosomiasis** is a tropical disease caused by poverty and poor waste sanitation and affects around 240 million people worldwide.

4.5 Drugs to treat infections

With protozoa

- Daraprim (pyrimethamine)
- Diloxanide
- Fasigyn (tinidazole)
- Flagyl tablets (metronidazole)
- Mepacrine
- Pentacarinat injection
- Pentostam (sodium stibogluconate)
- Wellvone (atovaquone)
- Nitazoxanide
- Tetracycline
- Diiodohydroxyquin iodoquinol paromomycin

A combination of several of these drugs may be required.

Furazolidone and quinacrine are effective but are now rarely used because of potential toxic side effects. Alternatives to these medications include paromomycin, quinacrine, and furazolidone.

With roundworms and hookworms

Drugs that rid the body of parasitic worms are known as anti-helminthic drugs. Examples include albendazole, ivermectin and mebendazole. Infections are generally treated for 1-3 days. These drugs are effective and generally have few side effects.

Mebendazole is used to treat threadworms, roundworm, whipworm and hookworm infections.

With tapeworms

The most commonly used drugs are praziquantel (Biltricide), albendazole (Albenza), and nitazoxanide (Alinia).

With flukes

Fluke infections are treated with the drugs praziquantel or triclabendazole. If the brain is infected, corticosteroids may also be given.

4.6 Natural remedies against intestinal parasites

There are herbal extracts and oils which have natural antimicrobial properties and can be used for several weeks to several months to reduce the risk of catching intestinal parasites and to prevent them from recurring. These natural remedies can also be used after a course of drugs is taken. Many people have parasites and they are not always easy to detect in tests of the faeces. Using these natural remedies may resolve your symptoms.

Intestinal Para-Clean capsules

Intestinal Para-Clean capsules contain a combination of traditionally used, antimicrobial substances to fight parasites.

Each capsule contains:

- Wormwood flower and leaf (artemisia absinthium)
- Black walnut green hull (juglans nigra)
- Cloves (syzygium aromaticum)
- Garlic (allium sativum)
- Butternut root bark (juglans cinereal)
- Buckthorn bark (rhamnus frangula)
- Pau D'arco (tabebuia heptaphylla)

BactoClear capsules

BactoClear capsules act as a natural antimicrobial for the gut and can reduce parasites in the small and large bowel. ***BactoClear*** is a specially manufactured, enteric-coated capsule, which means its active ingredients are protected from stomach acid and are released into the small intestines.

Each capsule contains:

- Phellodendron amurense (phellodendron)
- Essential oils of
  - Origanum vulgare (oregano)
  - Thymus vulgaris (thyme)
  - Syzygium aromaticum (clove bud)

Raw papaya

In a glass of warm coconut milk, add 2 to 3 tablespoons of raw papaya and ½ teaspoon of local honey and blend. Drink it daily for 2 weeks, half an hour before food.

Turmeric

Turmeric is antiseptic and antimicrobial and helps in eliminating all kinds of intestinal worms. Take a glass of coconut milk or buttermilk and add 1 to 2 teaspoons of turmeric powder and mix well. Drink it daily to reduce parasites from the intestines.

Pumpkin seeds

Pumpkin seeds contain a substance called cucurbitacin that has antiparasitic properties. Mix together 1 tablespoon of pumpkin seeds with ½ cup each of water and coconut cream and blend. Drink this mixture each morning, half an hour before breakfast for 1 to 2 weeks.

Neem leaves

Grind a handful of neem leaves to form a fine paste. Consume ½ teaspoon of this paste with a glass of water every morning, half an hour before breakfast. Do it for 7 days to reduce parasites from the intestines.

Garlic

Garlic has antibacterial properties that help get rid of worms and bacteria from the stomach. Chew raw garlic or drink garlic tea daily on an empty stomach for 7 days. The raw garlic should be eaten along with food or you may experience indigestion. You can also eat raw garlic in a Greek dip called tzatziki.

Coconut

Coconut can be used to treat intestinal worms and fungi. Eat 1 tablespoon of crushed raw coconut flesh plus 1 tablespoon of coconut oil in your breakfast. After 3 hours, drink 1 glass of warm coconut milk mixed with 2 tablespoons of castor oil. Drink this for 7 days straight to get rid of intestinal worms. Always ensure the castor oil is labelled as edible.

Cloves

Cloves have antiparasitic effects that destroy intestinal worms and their eggs. Boil 2 to 3 cloves with 1 cup of water in a saucepan. Simmer for 5 minutes and strain. Drink this solution 4 to 5 times daily for a week.

Ozone water

Ozone is a powerful antimicrobial with killing effects against parasites, viruses, bacteria and fungi. Make your own ozone water and drink it daily. For more information click on this link bit.ly/ozonekit

4.7 Tests to see if you have parasites

Your doctor can order a stool ova and parasites test to determine if there are parasites and/or their eggs in your stool (faeces). It is an easy and inexpensive lab test and is commonly requested. Your doctor will probably ask you to collect a sample of your stool at home and drop it to the laboratory for testing. The laboratory will perform a microscopic examination of your stool sample. A wet mount preparation is examined for the presence of eggs. It is recommended that 3 or more stool samples are collected on separate days and each sample needs to be examined. The laboratory may request you to put your stool specimens into special containers with preservative fluid. Specimens not collected in a preservative fluid may need to be refrigerated, but not frozen, until delivered to the lab, so make sure you get exact instructions. Your doctor may request that the laboratory uses specific stains or that special tests be performed to look for parasites not routinely screened for.

Some parasitic infections can be detected by testing blood. However, there is no blood test that can check for all parasitic infections. A serology test is used to check for antibodies or for parasite antigens produced when the body is infected with a parasite and the immune system is trying to fight it.

Patients with chronic strongyloidiasis may have multiple negative test results on faecal specimens. Faecal testing has a higher sensitivity in acute and disseminated phases

because of the high numbers of larvae in faeces. Faecal testing has been the mainstay of testing for ova, cysts and parasites. The presence of live larvae, rather than eggs, in fresh faecal specimens is a feature of S. stercoralis. Cool storage, transportation and delays before microscopic examination in a laboratory reduce the chance of a positive diagnosis. Agar plate testing relies on live larvae to track across the plate.

Serology

Strongyloides serology, using the strongyloides immunoglobulin G (IgG) enzyme-linked immunosorbent assay (ELISA), has a high sensitivity and specificity for chronic strongyloidiasis. Strongyloides-specific IgG relies on measuring the body's immune response to the presence of S. stercoralis. The immune response varies for different phases of strongyloidiasis. False negatives can occur when new cases have not yet seroconverted.

Patients who are severely immunocompromised may be unable to generate adequate IgG or a raised eosinophil count. Strongyloides-specific IgG serology decreases with effective treatment and is useful in monitoring eradication.

An excellent resource that covers all the parasites that infect mankind can be found at www.cdc.gov/dpdx/az.html

5. FOOD ALLERGIES AND INTOLERANCES

Some people have multiple food sensitivities which cause chronic gut problems. This makes it difficult for them to follow a normal well-balanced diet. Food intolerances are often associated with a reduced ability of the liver's detoxification pathways to break down chemicals and proteins (antigens). Therefore, it is always necessary to improve liver function in such cases, and this will gradually reduce the unpleasant reactions to foods.

The condition of leaky gut and/or unhealthy bacterial populations in the intestines is often present in sufferers of food and chemical allergies. This must be corrected to obtain relief.

Eating organically-produced meats, eggs, fruits and vegetables may help. Wash your raw produce thoroughly. Also use a good water purifier or drink rainwater to reduce chemical exposure from your water.

You may find that foods high in natural sulphur compounds, which support the liver's detoxification pathways, help you. Foods high in sulphur include garlic, onions, leeks, radishes, cruciferous vegetables (broccoli, cabbage, Brussels sprouts and cauliflower), broccoli sprouts (available in powder or capsules) and eggs. If you are allergic to any of these foods, they should be replaced with other foods high in sulphur to which you are not allergic.

The adrenal glands also need to be supported in cases of severe chemical and food sensitivity, as they may not be producing sufficient steroid hormones such as cortisol, and this will increase the severity of allergic reactions. It is easy to test the levels of cortisol with a morning blood test. The adrenal glands can be helped with supplemental vitamin C and ***vitamin D***. Pregnenolone is a natural hormone that can be prescribed by an integrative doctor and reduces inflammation caused by food allergies. Doses vary from 100 to 200 mg twice daily and it is quite expensive.

Patients with severe food and/or chemical intolerances are best to consult a specialist in allergies who will perform extensive tests to accurately determine the things that must be avoided. The most common foods to cause allergies are dairy products, gluten, shellfish and peanuts. Artificial sweeteners, preservatives and food additives can build up in the body, eventually causing allergic reactions. The most common offenders are MSG (monosodium glutamate), aspartame, sulphites, benzoates, nitrites and artificial colourings. Check labels to see if these things are present, and if so, avoid them.

Laboratory tests can be done through your local doctor to check for food allergies. The most reliable test uses a blood sample to measure antibodies (such as IgG) that your body may be making against foods to which you are allergic. It is possible to test your reaction to many different foods using an IgG food panel test.

Those with severe allergies can suffer fatal reactions to chemicals, foods and insect bites. These people should remain under the supervision of their doctor and carry a syringe of adrenalin (Epipen) for self-injection, should an anaphylactic reaction occur and immediate help is unavailable.

Supplements that may help to reduce food allergies

- A liver tonic containing St Mary's thistle, turmeric, taurine, selenium and B group vitamins can improve the detoxification pathways in the liver. These detox pathways enable the liver to break down offending substances such as amines, salicylates and other chemicals.
- Vitamin C 1000 mg taken twice daily supports liver and adrenal function.
- ***Ultimate Gut Health*** powder or ***glutamine*** powder can help to heal a leaky gut.
- Vitamin B5, also known as pantothenic acid, and vitamin B3 can strengthen the adrenal glands.
- Supplements of ***N-Acetyl-Cysteine (NAC)*** and ***selenium*** can increase production of glutathione in the liver and this can work wonders for those with food allergies. The dose of ***N-Acetyl-Cysteine (NAC)*** is one or two 600 mg capsules, twice daily 15 minutes before food with a glass of water; continue to take until benefit is seen.
- Taking ***digestive enzymes*** in the middle of your meals can reduce food allergy symptoms.
- Probiotics have been proven to reduce food allergies and chemical sensitivities. Fermented foods may also help.
- Food reactions often cause the release of excess amounts of histamine in your gut soon after eating the offending foods. The symptoms of histamine release may include sudden bloating, cramps, gas and diarrhoea. You can often prevent this by taking a capsule of sodium cromoglycate 100 mg to 250 mg. Take it 10 to 15 minutes before eating. Sodium cromoglycate is a safe substance that blocks histamine release in the gut. It is great if you are going out to dinner and are anxious about getting an upset gut which will spoil your evening. Sodium cromoglycate requires a doctor's prescription and must be made up by a compounding pharmacist.

The Royal Prince Alfred Hospital in Sydney has an excellent Food Intolerance and Allergy Unit to which you can be referred by your doctor. They also publish excellent books on food allergies and intolerances.

5.1 Are dairy products healthy?

This is a very individual matter, as some people can eat dairy with no ill effects, whilst others find that dairy products cause unpleasant symptoms such as respiratory mucous, sinusitis, bronchitis, constipation, diarrhoea or asthma. In some people, dairy products can upset the gallbladder. Thus, trial and error are required. If you are lactose intolerant you will find that dairy products cause diarrhoea and bloating, unless you purchase the lactose-free varieties.

If you have an autoimmune disease, I think it's best to keep your dairy intake reduced, so that you do not eat large amounts at one time, and do not eat dairy products every day.

The healthiest dairy food choices are plain or Greek yoghurt and pure cheeses (as opposed to cheeses processed with vegetable fats). White cheeses are easier to digest than hard, yellow cheeses. If you do drink cow's milk, I think that you need to be very selective, as not all types of cow's milk are healthy.

The topic of A2 versus A1 milk is interesting, as A1 milk has been implicated in the genesis of Type 1 diabetes and allergies. A2 milk is pure, natural, dairy milk and is free of permeate. In contrast, most dairy milk available today contains 2 main types of beta-casein protein, namely A2 and A1. A2 milk comes from cows specially selected to produce A2 beta-casein protein rather than A1. A2 milk is rich in A2 beta-casein protein and some people find that it assists their digestion.

5.2 Bowel problems caused by FODMAPs

What are FODMAPS?

The term FODMAPS stands for Fermentable Oligosaccharides, Disaccharides, Monosaccharides and Polyols (FODMAPs). I can hear you saying – wow, what a mouthful!

FODMAPs are sugars that exist in many different types of foods, including some dairy products, fruits, vegetables and grains. FODMAPS can cause problems in some people because they are poorly absorbed from the small intestine. When they arrive in the large intestine (colon) they can produce excess gas, abdominal bloating, painful cramps and diarrhoea. The diarrhoea may alternate with constipation.

Studies have shown that eating FODMAPs causes irritable bowel syndrome (IBS) in some people. But when they reduce or eliminate FODMAPs, their IBS improves dramatically.

How do we diagnose dietary intolerance to FODMAPS?

Hydrogen/methane breath testing is a useful method to identify if a person absorbs fructose, lactose and sorbitol effectively. If breath tests are not available, a diet which avoids FODMAPs can prove if they are causing unpleasant bowel symptoms.

How do I follow the low FODMAP diet?

It is really a good idea to see a dietitian or nutritionist who has an interest in FODMAPS, as you will need guidance. They will teach you the ins and outs of a low FODMAP diet and how to maintain a low FODMAP pantry.

Here is an excellent guide to a low FODMAP diet:
https://dietingwellfodmap.com/low-fodmap-diet-meal-plan-menu/

- Dairy foods should be low in lactose, such as ripened cheeses (including Swiss and parmesan). Choose lactose-free yoghurt and lactose-free kefir milk.
- Select a variety of fish, meats and poultry that are FODMAP-free.
- Select nuts and seeds low in FODMAPs, such as pecans, walnuts, almonds, peanuts, pine nuts, macadamia nuts and sesame seeds.
- Select fruits low in FODMAPs, such as strawberries, bananas, blueberries, grapes, rockmelon, pineapple, oranges and kiwifruit.
- Select vegetables low in FODMAPs, such as spinach, carrots, capsicum, eggplant, bok choy, tomatoes, zucchini and potatoes.

The low FODMAP diet is recommended for 8 weeks to judge its effect. After this time, you should be reassessed by your dietitian/nutritionist who will gradually reintroduce some FODMAP foods. Over time, most people can relax their diet and may only need to avoid some high FODMAP foods.

5.3 Salicylate intolerance

Salicylates are “aspirin-like substances” that exist naturally in many plants and herbs. Some people have an intolerance to salicylates, especially if they have sluggish liver detoxification function or a leaky gut. Salicylate intolerance symptoms can include irritable bowel syndrome, hives, hay fever, asthma, skin rashes and itching, cystitis and headaches.

Salicylate intolerance can be reduced by improving liver function and repairing a leaky gut. I recommend the same strategies described in this book for food allergies.

If you suspect that you have a salicylate intolerance, consult an allergy specialist to confirm this or follow a low salicylate diet for 8 weeks and see if your symptoms resolve.

If you are allergic to salicylates, there is a lot of free information on the Internet which will help you to choose low-salicylate food alternatives.

The following links are very helpful.

- www.sjhc.london.on.ca/sites/default/files/salicylate_free_diet_food_guide.pdf
- www.drugs.com/article/low-salicylate-diet.html

5.4 Anti-inflammatory diet

An unhealthy digestive tract always has excessive inflammation occurring in its tissues. This can be reduced by consuming an anti-inflammatory diet. Intermittent fasting can also help to reduce gut inflammation.

Foods to eat on an anti-Inflammatory diet include:

Organic

Organic, free-range and grass-fed produce is healthier to consume, as it eliminates the use of toxic chemicals and antibiotics. Also, start your own vegetable and herb garden.

Vegetables

Raw and cooked. Make sure that you eat a rainbow of colours; cruciferous vegetables including Brussels sprouts, broccoli, cabbage, kale and cauliflower are especially high in antioxidants and detoxifying sulphur. Try to include asparagus, beets, carrots, celery, cucumber, bok choy, green beans, leeks, mushrooms, mustard greens, okra, onions, garlic, parsley, peas, radishes, spinach, lettuce, sprouts, zucchini, watercress and sweet potato.

Fruits

Cherries and berries such as blueberries, blackberries, strawberries and raspberries are especially high in antioxidants. Try to include papaya, apples, apricots, melons, pears, peaches, nectarines, plums, all citrus fruits, avocado and kiwifruit.

Whole grains

Choose gluten-free such as buckwheat, quinoa, brown rice, black rice, wild rice, millet, amaranth, teff and buckwheat.

Protein

- Fresh coldwater fish such as Alaskan salmon, oily fish such as sardines, trout, tuna, mackerel and halibut.
- Free-range chicken, duck, turkey and free-range eggs.
- Greek yoghurt and white cheeses.
- Legumes, nuts and seeds.

Oils

Cold pressed olive oil, coconut oil, grapeseed oil and hemp seed oil. Store in a cool dark place.

6. RECIPES

6.1 Your own herb garden

Your own herb garden can provide you with inexpensive fresh organic herbs, as well as great pleasure. Herbs are very high in antioxidants, folate and chlorophyll and improve the function of the liver and gut. Many fresh, green herbs have natural antibiotic and anticancer substances.

If fresh herbs are unavailable, dried herbs can be used, but fresh is always best.

Below are a few varieties of herbs that are easy to grow:

- Parsley - curly leaf and continental are both very easy to grow
- Basil - Vietnamese, Thai and bush basil are all delicious
- Chives - garlic and plain
- Garlic - standard or elephant (milder)
- Lemongrass
- Rosemary
- Coriander - Vietnamese and standard
- Sage
- Oregano
- Dill and fennel
- Mint

If you do not have enough ground area, most herbs grow well and look great in pots and hanging baskets.

6.2 Healthy gut-healing beverages

Juices are so wonderful when they are freshly prepared and consumed straight away. However, if you are time poor and would still like to have your daily dose of fresh juice, you could freeze larger quantities of the freshly-made juice in glass jars and store it in your freezer. If you freeze your juice immediately after it has been extracted, its healing nutrients and antioxidants can be retained for months.

Juices galore

Some simple combinations are:

- carrot, fresh ginger and cucumber
- carrot, celery, parsley, mint, tomato and apple
- beetroot, apple, ginger and parsley
- orange, lemon or lime (whole), carrot, fresh ginger and parsley

Juice for inflammatory bowel disease

For disorders such as ulcerative colitis and Crohn's disease.

Basic recipe:

- 1 carrot
- 2 celery sticks
- 2 cabbage leaves or 2 kale leaves
- 5 cm (2 inch) slice of beetroot
- 1 apple or pear
- ½ cucumber (skin on)
- 1 aloe vera leaf (spines removed)
- 1 tsp ***Ultimate Gut Health*** powder

Optional extras to add to basic recipe:

- ½ cup chopped fennel OR
- ½ papaya OR
- ½ cup blackberries OR

Tropical smoothie to heal the bowel

- 1½ cups coconut milk
- 1 banana
- 1 tsp ***Ultimate Gut Health*** powder
- 1 kiwifruit OR
- ½ cup blackberries OR
- 6 strawberries OR
- ½ pawpaw OR
- 2 passionfruit pulps

You may use less fruit if the diarrhoea is bad. If appetite is poor, you may add 1 extra teaspoon of ***Ultimate Gut Health*** powder or ***Glutamine*** powder to this smoothie.

Place all ingredients into a blender and blend until smooth.

Juice to assist weak digestion

- ⅓ pineapple, skin on
- 1 orange or ½ grapefruit
- ½ cucumber
- 1 apple, skin on
- 2 slices papaya

Trim the rough, dry pieces from the pineapple but retain as much green as you can. Thinly peel citrus leaving as much white pith as possible. Wash all ingredients and pass through the juicer. Drink twice a day, half an hour before meals.

Juice to fight intestinal parasites

- 2 cabbage or kale leaves
- 2 spinach leaves
- 2 apples, whole
- 1 garlic clove or ½ red onion
- 1 cm fresh ginger root
- 1 cm horseradish root
- 2 pomegranates (if in season) – seeds and flesh

Wash, trim and chop all ingredients and pass through the juicer. Drink 200 ml, three times daily. You may need to dilute the juice with water or herbal tea.

Juice for irritable bowel syndrome

- 1 apple, whole large
- ¼ cabbage, medium-sized
- 2 celery sticks
- 1 carrot
- 1 cm fresh ginger root
- 1 tsp ***Ultimate Gut Health*** powder

Wash, trim and chop, then process all ingredients through the juicer. Drink 1 cup, once or twice daily.

Smoothie for irritable bowel syndrome

- 1 cup rice, almond or coconut milk
- 1 pear
- 2 tsp ***Ultimate Gut Health*** powder
- 1 tsp chia seeds
- 1 tsp coconut oil

Place all in a blender and blend until smooth.

Juice for stomach infections (such as Helicobater pylori)

- 1 grapefruit, peeled but leave white pith on
- ½ cup cauliflower, chopped with stem and leaf
- 1 cup watercress
- 2 cabbage leaves, green
- 1 red radish with top leaves
- ½ to 1 garlic clove (optional)
- 1 pomegranate (if in season) – seeds and flesh

Wash, chop and put all through the juicer. Drink 1 cup, twice per day or more frequently if helpful. You may dilute with water or cold herbal tea.

Options:

- 1 medium carrot or 1 medium apple may be added for sweeter flavour.
- Ginger is a natural remedy to settle the digestion and also addresses nausea.
- Radish is a natural antibiotic and supports liver function. Pomegranate reduces intestinal parasites such as worms, amoeba, giardia and Helicobacter pylori.

Anti-gas juice

- 1 cup fennel, chopped
- ⅓ cup coriander leaves, chopped
- 2 apples, whole with skin on
- 2 celery sticks

Wash, trim and chop, then process all in the juicer. Drink 3 small glasses inbetween meals.

Anti-haemorrhoid juice

- 1 cup watercress, chopped or 2 cabbage leaves or 2 turnip leaves
- 1 large carrot
- 2-3 spinach leaves and stems or 2 dandelion leaves
- 1 garlic clove
- 1 apple, skin on
- 1 grapefruit or 1 orange, outside skin and pith left on

Wash, trim and chop, then process through juicer. Drink 1 glass twice daily.

Prune juice may also be drunk at breakfast to improve bowel habits. Soak dried prunes in water overnight, take out the stones and juice the fruit. You may also dilute the juice with water, as increased fluid intake is vital to overcome haemorrhoids.

Smoothie for peptic ulcers

- 1 banana, peeled
- 1 apple, peeled
- 4 strawberries or 1 kiwifruit
- 2 tsp ***Ultimate Gut Health*** powder
- ½ cup coconut milk
- ½ cup water

Wash, trim and chop, then process all in blender until smooth.

Constipation smoothie

- 2 spinach or dandelion or cabbage or kale leaves
- 1 green apple, whole with skin on
- 100 g dried prunes – stones removed
- 100 g figs, fresh if in season, otherwise dried
- 30 g fresh rhubarb
- 50 g fresh cherries (stones removed - Cherries are optional)
- 1 tbsp chia seeds
- 1 tsp ***Magnesium Ultra Potent*** powder
- 1 tsp ***Fibretone*** powder

Wash all fresh ingredients and chop to fit into blender. You will need a high-powered blender (such as a Vitamix or Thermomix). Soak dried fruit in water overnight.

Options:

- Dilute with water or coconut cream to taste, as the extra fluid will help the bowels. You can substitute stone fruits in season and also berries to make up the amounts.

Mint tea

- 2 tbsp Chinese green tea
- 4 tbsp spearmint (or mint leaves), chopped
- 900 ml water
- 4 slices lemon or lime, thinly sliced
- Honey or stevia or ***Nature Sweet Sugar Substitute*** to taste
- Extra mint for garnish

Add tea and mint to a teapot. Boil the water then pour into pot. Leave for 5 minutes. Pour the tea through a strainer into warmed glasses. Add sweetener to taste and a slice of lemon. Add a sprig of mint for garnish. This tea reduces cramps and acidity.

Fennel tea

This can be served hot or cold and poured over ice. Fennel tea is refreshing and tasty. Fennel improves digestion and reduces intestinal gas.

Start by gently crushing around 1 teaspoon of fennel seeds in a mortar and pestle. Scoop the seeds out with a teaspoon and place into a tea ball or strainer and pour 1 cup of boiling water over them. Allow the seeds to steep in the boiling water for 7–10 minutes.

Spiced tea

This recipe stimulates the digestive juices.

- 6 cloves, whole
- 2 strips lemon rind
- 1 stick cinnamon bark
- 2 tsp tea (Formosan is nice)
- 2 tbsp fresh ginger grated
- 5 lemon rings to serve

Bring 5 cups of water, lemon rind, cloves, cinnamon and ginger to the boil. Simmer for 10 minutes, then return to the boil. Pour the mixture into a teapot with the tea. Leave for 5 minutes. Strain and serve with lemon rind. A sweetener such as ½ teaspoon of honey, a pinch of stevia or a pinch of ***Nature Sweet Sugar Substitute*** is optional.

Smoothie recipe to alkalinise the gut

- 1 avocado, skin removed
- 2 kale leaves and/or cabbage leaves
- 1 carrot
- 1 lime or lemon, skin removed
- 2 apples
- ½ cucumber
- 6 mint leaves
- 1 tsp ***Ultimate Gut Health*** powder

Place in Vitamix and blend.

Bone broth recipe

By naturopath Victoria Taylor

Serves 3 or more

- 2 organic chicken carcasses or 6 lamb rib bones
- 1 tbsp apple cider vinegar
- 1 onion
- 3 celery stalks
- 2 carrots
- 4 cloves garlic
- 2 tbsp whole peppercorns
- 1 tbsp turmeric
- 1 cup of fresh herbs

Roughly chop the vegetables, leaving the peel on. Add all the ingredients to a slow cooker and cover with water. Cook on low heat for 24-48 hours. Strain the broth to capture the liquid and discard the remaining bones/vegetables.

Keep 2 cups worth of liquid in the fridge and freeze the remaining broth in jars or containers. Have 1 cup of broth for dinner, and if you are hungry later on, have another cup.

Kelp broth recipe

By nutritionist Louise Belle

Serves 3 or more

- ¼ cup kelp powder (***Ocean Superfood Australian Kelp*** is organic)
- 1 tbsp apple cider vinegar
- 1 onion
- ½ cup sweet potato, chopped
- 1 cup mushrooms
- 3 celery stalks
- 2 carrots
- 4 cloves garlic
- 2 tbsp whole peppercorns
- 1 tbsp turmeric
- 1 cup of fresh herbs

Roughly chop the vegetables, leaving the peel on. Add all the ingredients to a slow cooker and fill with water. Cook on low heat for 12 hours. Strain the broth to capture the liquid and discard the remaining vegetables.

Keep 2 cups worth of liquid in the fridge and freeze the remaining broth in jars or containers. Have 1 cup of broth for dinner, and if you are hungry later on, have another cup. Stir 1 teaspoon of cold pressed virgin olive oil through the broth upon serving if desired.

Everyone is an individual when it comes to their gut

It must be noted that not all foods affect people in the same way. I recommend keeping a daily diary of the foods you eat and any symptoms you experience. This way it will become easier to see when any food item triggers off unpleasant symptoms. Once you are aware of these trigger foods, remove them from your diet.

7. BOWEL CLEANSE AND DETOX

7.1 Why cleanse the bowel?

A good, cleansing program should always begin by removing the waste in your colon, which is the last portion of your food-processing chain. If you attempt to clean your liver or bloodstream without addressing a bowel filled with toxic waste material, some of the toxins excreted in your bile will probably get recycled back to your liver and lymphatic system.

It is important to understand the importance of frequent, easily-passed bowel movements to aid removal of waste and toxins from the colon. Gastroenterologist Dr Anthony Bassler, tells his colleagues: “Every physician should realise that intestinal toxaemias (poisons) are the most important contributing causes of many disorders and diseases of the human body.” This is Hippocrates revisited!

Waste products, bad bacteria and old faeces that linger too long in the colon cause inflammation in the lining of the colon. If chronic, this inflammation may cause colitis, bowel polyps and cancers to form.

Once your small and large intestines are clean, you will be able to absorb nutrients efficiently again! This will produce more energy, a better mood and a sense of general wellbeing.

You need to drink lots of water while doing a bowel cleanse and warm water is preferable. Drink at least 2 litres of water a day.

Raw juices made with carrot, apple, cabbage, kale, lime, orange, grapefruit, lemon and mint can help to heal the gut. You do not have to include all of these at one time. If your digestive system is sensitive, just start with 3 or 4 ingredients. A dash of the fresh herbs like oregano, thyme or coriander (cilantro) add more potent antibiotic effects. During a bowel cleanse, you can drink approximately 200 to 400 mls (7 to 12 ounces) of juice daily. If the juice is too strong in flavour or effect, you can dilute it with water or extra celery and carrot.

Observe your bowel actions

Always have a look at your bowel actions to observe their colour and consistency. Your bowel actions can be very light brown to dark brown or greenish in colour, which is all normal. If your bowel actions are black (similar to a black tar colour), this is abnormal and may indicate bleeding from the bowel. If there is red blood in your faeces, this also indicates bleeding from the bowel or from haemorrhoids. Always tell your doctor, as this can be a sign of bowel cancer.

Many people will find the idea of checking their bowel actions a little gross or distasteful. But if you can't see what you're eliminating, then you can't see the results.

Mucoid plaque is the old putrefied faecal matter that has been stuck to the sides and corners of your intestines. This may have been stuck in your bowel for months, all the while causing inflammation and reducing the absorption of nutrients.

Mucoid plaque forming foods are: sugar, processed foods, refined flour and preserved meats.

Mucoid plaque has different shapes and sizes depending on which area in your gut it originated. It may resemble ropes; these are discs and balls held together by stringy mucus-like substances. These ropes can get quite long and their colour may vary from yellow-green, light brown to very dark brown. They should not be tar black, as this indicates bleeding from the bowel, which is often a sign of bowel cancer. Mucoid plaque can look quite weird and may be soft, firm or rubbery. If you have ever had a colonic irrigation (professional enema) you may have eliminated this rubbery old faecal matter out of your bowels before.

Some of my patients have passed strange-looking objects or worms, and that's why it's important to check your bowel actions during a bowel cleanse. If you do pass anything that moves, such as a worm, keep it in a jar for your doctor to check at the lab.

7.2 Types of bowel detox

7-day bowel cleanse

For 7 days restrict your diet to:

- Raw vegetable and fruit juices. Use 80 percent vegetable and 20 percent fruit as your ingredients for the juice. You can drink water and herbal teas, but nothing else.
- Raw vegetable and fruit salads. Once again use 80 percent vegetables and 20 percent fruit in your salads. The only dressing allowed is cold pressed olive oil, apple cider vinegar and lemon or lime juice.
- Have one salad for lunch and one salad for dinner. The salad should fit into a medium-sized bowl.
- Vegetable soup can be consumed at night and all vegetables are allowed. You may use vegetable stock or miso to flavour. Organic kelp powder can be added if desired.
- If desired, you can replace the soup with the salad for dinner, but you cannot have both.
- No other foods are allowed.
- Take a ***magnesium*** powder in a dose of 1 teaspoon twice daily.

Gentle 15-day Dr Cabot Cleanse

- See more at www.drcabotcleanse.com

Clean your raw produce well

This will reduce unwanted pesticides, microorganisms and dirt from your produce.

Peeling is an efficient way to remove residue and is recommended when there might be some residue in the crevices of the produce.

Keep two separate glass spray bottles, one filled with white vinegar and the other filled with a 3 percent hydrogen peroxide solution (the regular one you get from the pharmacy). Spray your produce all over with vinegar first, then the peroxide, and leave the produce to sit for 10 minutes. Then, rinse thoroughly and wipe the produce, or scrub it gently during the rinse.

Alternatively, you can fill a clean sink or large bowl with enough water to cover your produce, then add one cup of vinegar and one cup of 3 percent hydrogen peroxide for a large amount of produce. Use less vinegar and hydrogen peroxide for a smaller amount of produce. (This does not need to be exact since these substances are safe and non-toxic). Let the produce soak for 10 minutes. Rinse thoroughly in distilled or filtered water and wipe or scrub the produce gently during the rinse.

It is important to rinse the produce thoroughly to remove the 3 percent hydrogen peroxide, because it should not be ingested. Any vinegar will work, but white vinegar is the cheapest and most available. Dry your produce after washing.

Berries are sensitive and may take on the taste of vinegar and peroxide when soaked with them, but a shorter soak and a more thorough rinse usually prevents this.

You can also dissolve a teaspoon of sea salt in your vinegar water bath to increase its germicidal effect. This also reduces parasites such as liver fluke. Adding a big splash of lemon juice also enhances cleaning ability.

Alternatively, ozone water can be used to clean and sterilise produce. It is the most powerful and least toxic cleaning agent available. It will not harm your produce. Ozone can also destroy harmful microorganisms and denature many toxic chemicals such as insecticides and pesticides. For more information click on this link bit.ly/ozonekit

If you have any questions regarding your health or any of the recommendations in this ebook, call our health advisory service at +61 2 4655 4666 or send us an email at contact@sandracabot.com

8. TESTS FOR BOWEL AND DIGESTIVE FUNCTION

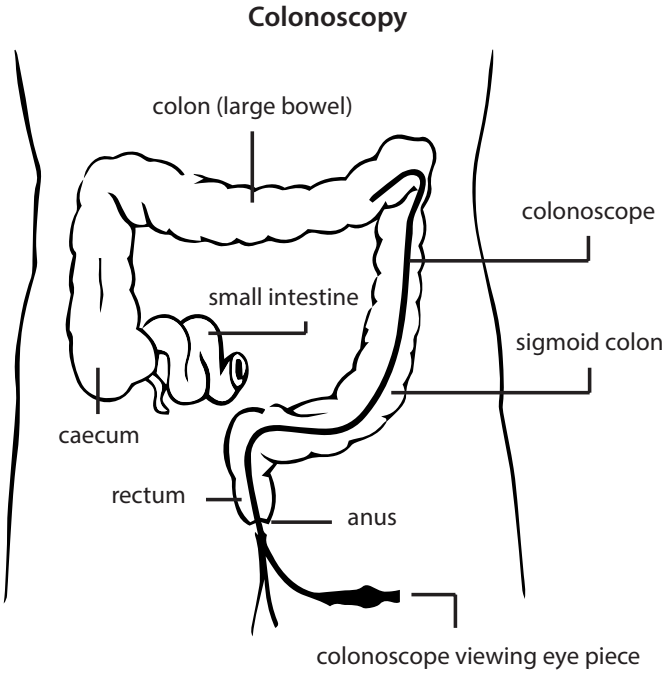
If you have problems with your gut, it is a good idea to see a specialist in gastrointestinal disorders; known as a gastroenterologist. The most serious problems to exclude are malignant tumours of the stomach and bowels, which become far more common as we age. This is why it is important to have thorough investigations early on, if you develop any change in bowel actions, unexplained weight loss or abdominal pain.

Bristol stool chart

1 	Separate hard lumps, like nuts	Severe constipation
2 	Lumpy and sausage like	Mild constipation
3 	A sausage shape with cracks in the surface	Normal
4 	Like a smooth, soft sausage or snake	Normal
5 	Soft blobs with clear-cut edges	Lacking fibre
6 	Mushy consistency with ragged edges	Mild Diarrhoea
7 	Liquid consistency with no solid pieces	Severe Diarrhoea

Colonoscopy

This involves passing a thin, flexible fibre optic tube, called a colonoscope, through the anus. This procedure enables the doctor to visualise the lining of the entire colon and rectum, and transmits the picture to a television screen. Samples (biopsies) can be taken from suspicious looking areas of the bowel to enable accurate diagnosis. It is done under mild intravenous sedation and takes around 30 minutes. The test is usually not uncomfortable. Bowel polyps can be removed via this procedure. There is a slight risk of perforation of the colon (1 in 2000 cases) during colonoscopy.



Barium enema X-ray

This is an X-ray examination of the large bowel (rectum and colon), which enables the doctor to assess the shape, size and smoothness of the outline of your large bowel. The X-ray is performed after you receive an enema, to insert barium (a chalky radio-opaque liquid) into the rectum. The barium will contrast and outline the wall of the large bowel. A barium enema will show up enlargement of the large bowel, and irregularities of the bowel wall and bowel pockets known as diverticula. It can also reveal muscular spasm (spastic colon) in the wall of the large bowel.

In some cases of severe constipation, a barium enema X-ray will reveal a huge, dilated colon with extra loops of bowel (redundant bowel); this is known as a megacolon.

A barium enema may show some types of bowel cancer; however, it can also miss many small cancers, and for this reason a colonoscopy is a far more accurate way to exclude bowel cancer.

Stomach acid test

The stomach acid test is used to measure the amount of acid and the level of acidity in the stomach contents. This test is known as the gastric acid secretion test.

The stomach contents are removed through a thin tube that is passed into the stomach through the mouth and then into the oesophagus. The stomach contents are analysed in a laboratory for their acid concentration.

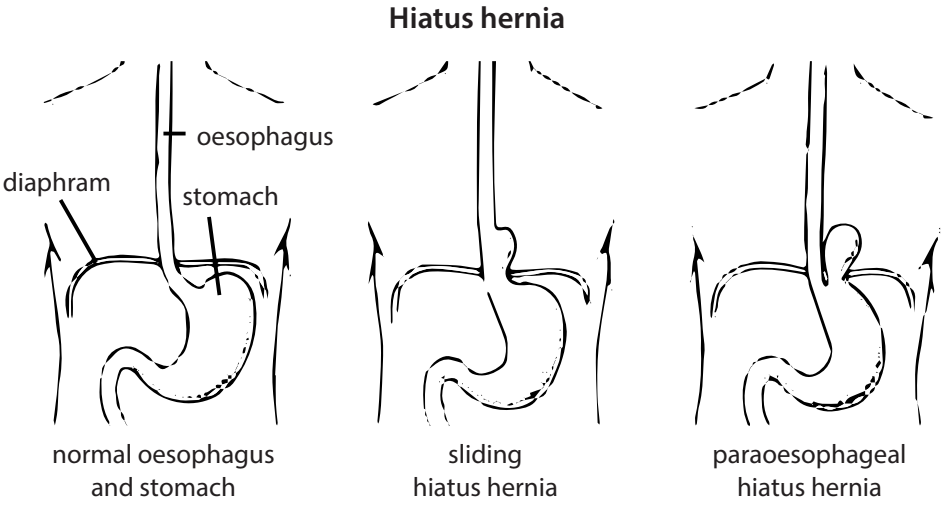
You may need a stomach acid test if you have severe indigestion, chronic Helicobacter pylori infection in the stomach, or nutritional deficiencies that cannot be relieved with treatment. These may be due to lack of acid production by the stomach.

The stomach acid test is very safe as you are fully conscious.

Results of stomach acid test

Normal results:

- The volume of the stomach fluid is 20 to 100 mL.
- The acid level (pH) is acidic (1.5 to 3.5).



APPENDIX

1. Fasting to improve your gut

Intermittent fasting can be very helpful for the following:

- Small intestinal bacteria overgrowth (SIBO)
- Weight loss
- Inflammatory bowel disease
- Irritable bowel syndrome (IBS)
- Leaky gut

Generally speaking, in this modern day, people overeat and eat too often and this is why we have an epidemic of weight problems. Indeed, some people literally "dig their grave with their teeth!"

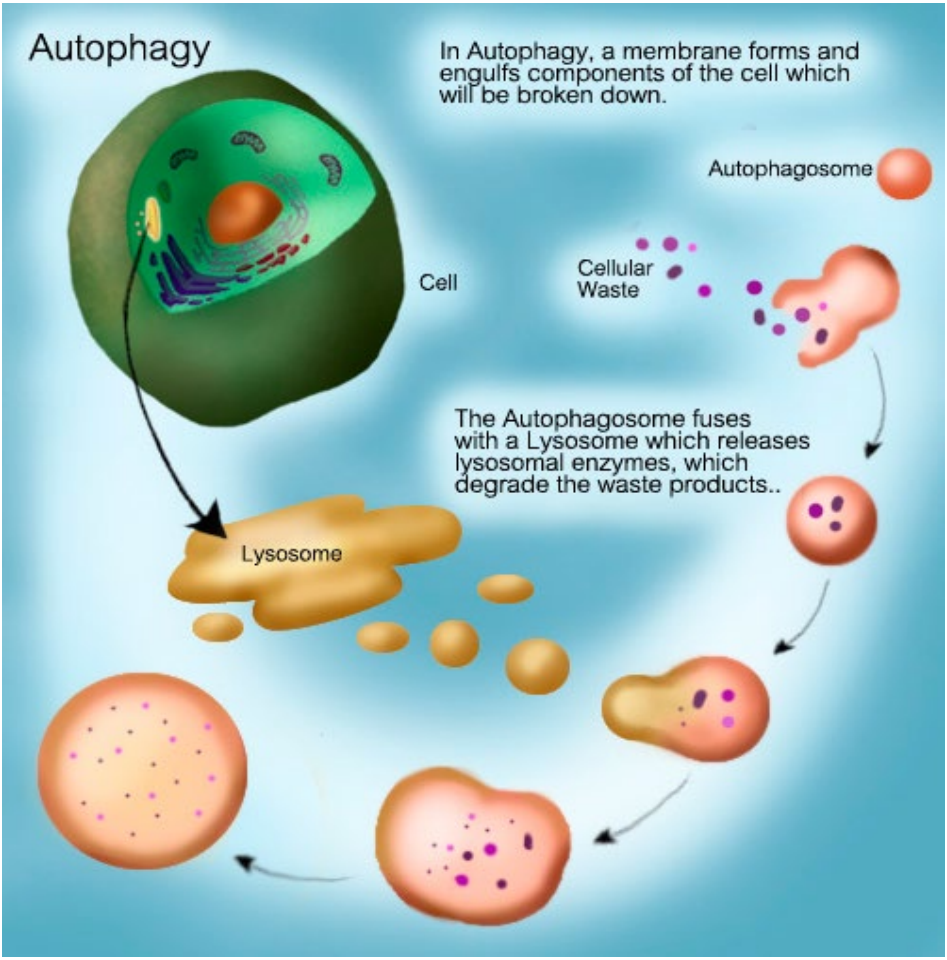
Over time, some of our body's cells become old and poorly functioning and accumulate toxins and free radical damage. When you fast, your body eliminates all the broken down, old cell parts (such as organelles, proteins and cell membranes) which do not work properly anymore. This process is called autophagy. The word autophagy derives from the Greek language - auto (is the self) and phagein (is to eat). So, the word literally means to eat oneself. During the process of autophagy, old damaged intracellular organelles are destroyed and new ones are built to replace them.

Autophagy is a natural and desirable process when regulated. When we don't eat, our levels of the hormone insulin go down and our levels of the hormone glucagon go up. This increase in glucagon levels stimulates autophagy of cells. Fasting raises glucagon levels and provides the greatest known stimulus to autophagy.

Autophagy is a form of detoxification or cleansing of our cells. Fasting not only stimulates autophagy and cancer to shrink, it can help to reverse the ageing process, by getting rid of old cellular junk and replacing it with new parts.

Autophagy is stimulated in the body by eating less and also by intermittent fasting. It has the ability to clear out old proteins and thus could prevent the development of Alzheimer's disease.

Eating too much food, especially carbohydrate-rich foods, raises blood glucose and insulin levels while decreasing glucagon levels. This turns off the self-cleaning process of autophagy and detoxing. And it doesn't take much food, as even small amounts of amino acids can stop autophagy. So, the process of autophagy is unique to fasting and is not achieved by simple caloric restriction.



Now there is no need to be excessive, as you can feel unwell from too much autophagy. Intermittent fasting from 12 to 48 hours is safe and advantageous, unless you are diabetic. Diabetics can also stimulate autophagy to a worthwhile degree just by avoiding carbohydrate-rich foods and eating more vegetables and protein to replace the carbohydrates. Type 2 diabetics should avoid snacking and overeating and also eat less often to stimulate weight loss and reduce cancer risk and growth.

If you want to start intermittent fasting you can:

- skip breakfast
- skip breakfast and lunch
- do not eat for 24 hours
- do not eat for 48 hours

Make sure you drink plenty of water and/or herbal teas during your fasting period. You are allowed to have some black tea and coffee with no sugar.

2. Fermented foods

By naturopath Victoria Taylor

Fermented foods are a potent way to increase the quantity and diversity of beneficial bacterial species in your gut.

Fermented foods contain trillions of beneficial bacteria, compared to probiotic supplements which are limited to billions. Furthermore, fermented foods have a wider variety of beneficial bacterial species compared to probiotic supplements. They are also generally more cost effective.

After any course of antibiotics, it is necessary to repopulate our gut with a wide variety of beneficial microorganisms.

Fermented foods, such as sauerkraut and natto (a soy dish popular in Japan), contain substantial amounts of beneficial vitamin K2.

Fermented dairy products

- Yoghurt – purchase full fat, unsweetened and unflavoured.
- Kefir – is a cultured milk; it's easy to make at home from either commercially available freeze-dried granules or working grains to convert milk proteins from hard to easy to digest. Kefir can also be made with water.
- Buttermilk – most commercial buttermilk is not cultured but a soured version which tastes like drinking yoghurt. Pepe Saya is a provider of this wonderful buttermilk in Sydney.

Fermented vegetable products

- Sauerkraut – is traditionally cabbage-based, with other available vegetables added, salted and naturally fermented with fresh liquid whey from either aged yoghurt or kefir.
- Kalekraut – is very similar to sauerkraut, but is made with kale instead of cabbage.
- Kim chi – is the national dish of Korea and is made in a similar way to sauerkraut with the addition of many other vegetables, spices and especially chili. It also tends to be salted and may have added salted fish.

Fermented soy

- Natto – definitely not for the faint-hearted. This food is eaten with gusto in Japan. Natto is soy beans that have been fermented with a bacterium and the product is distinctive.
- Miso – is a mash of soy, barley or rice or a mixture of these, which is fermented with a beneficial fungus. Miso can be mixed with water and tofu as a soup, or may be added to meals to impart flavour and beneficial nutrients.
- Tempeh - is very similar to miso, but the beneficial fungus is grown on whole soy beans and is eaten in a similar way to tofu.

Fermented teas and fruits

- Kombucha – this requires sweetened tea for the growth of this probiotic-rich drink. It is made by adding a bought “scoby” to cooled and sweetened tea. It is then left to ferment at room temperature until sweetness is replaced by a more acidic taste.
- Apple cider vinegar – for its probiotic value, it is best to buy an organic brand with a “mother” in it. The mother is cloudy sediment on the bottom of the bottle, and this provides a rich source of probiotics.

NOTE: This list is not exhaustive. There are many more varieties of fermented foods. You can find excellent fermented foods, such as the Peace Love and Veggies brand in health food stores and supermarkets.

3. Preparing your food

You may spend time and money sourcing healthy and/or organic food, but if you do not prepare or cook it in a healthy manner, you will not gain the benefits to your health.

Eating a lot of your food in its raw state is ideal, however, most busy people are not going to be able to accomplish a completely raw diet.

Bowel cancer rates are soaring and digestive disorders are epidemic. Poor food preparation and cooking methods are partly to blame. I am against the use of microwave ovens to cook and reheat food. It's not surprising that bowel cancer rates have increased dramatically since the introduction of microwave ovens.

Alternatives to using a microwave oven include:

- Stir fry your food in a wok.
- Roast your meat and vegetables in a traditional oven.
- Purchase a turbo oven, which is economical and a healthy way to cook or reheat leftovers. The turbo oven allows you to make meals in half the time of traditional ovens.
- A convection oven is an easy way to reheat leftovers. Use them at a low temperature — like 95-120 degrees Celcius — to warm a meal over 20-30 minutes.
- Try to eat more of your food in its raw state, as it gives you maximum nutritional value and contains living enzymes and probiotics.
- Prepare your meals in advance. This way you will always have a healthy meal available on those days when you're too busy to cook. Make soups and casseroles in bulk, and then freeze them in large freezer bags or glass jars. Before mealtime, just take one out and defrost it in a sink of warm water. Slowly reheat your meal on the cooktop.

Health concerns with microwave ovens include:

- Cancer-causing toxins can be leached into your food from packaging.
- The food temperature is extremely hot; baby bottles should NEVER be heated in the microwave. Microwave heating can destroy the disease-fighting ability of breast milk or milk with added probiotics.
- Plant foods and other foods lose cancer-fighting phytonutrients when cooked in the microwave.
- The microwave produces extremely rapid vibration of the molecules in the food, so that the physical and chemical structure of foods change. There have been insufficient studies done to determine what types of damage occurs in foods during microwaving, and I think this is because there is not enough to be gained financially from such research.
- Microwaving forms new compounds (known as radiolytic compounds). These compounds are foreign to humans and nature, and we do not know their effects in the human body.

Dr. Hans Hertel, a Swiss food scientist, found negative effects in human blood tests from using microwave cooking. Dr Hertel did a small, but high-quality study, which showed that microwave cooking caused negative changes in the subject's blood. Dr. Hertel published the results in 1992, but a Swiss trade organisation, had a gag order issued, which prohibited him from declaring that microwaves were dangerous to health. The gag order was later removed in 1998, after the Swiss court ruled that the gag order violated the right to freedom of expression.

4. Ozone to support better health

Ozone is helpful for many different types of health problems that have failed to respond to conventional, herbal and nutritional therapies.

Ozone is a natural gas made up of 3 oxygen molecules and is generated in nature by UV rays during thunderstorms and lightning and gives the fresh, invigorating smell to the air after a thunderstorm has passed. Ozone can also be created by machines (small generators) that convert oxygen in the air to ozone.

Ozone therapy has been seriously studied for over 100 years and its benefits are proven, reliable and reproducible, and it has been found to have minimal side effects. Medical ozone has been used for over 150 years to treat infections, ulcers, wounds and many diseases. The first O_3 generator was patented by Nikola Tesla in 1896 and he started the "Tesla Ozone Company." During the First World War (1914-18), doctors applied ozone topically to wounds and discovered ozone not only remedied infection, but also had immune-boosting properties.

Ozone cannot be inhaled, as it can damage the lungs; apart from this precaution, ozone is safe and generally has no side effects. Ozone has been used by dentists for many years to control microbes in their clinics. Ozone is also used by some medical doctors, especially in Europe and the USA, to treat infections.

The unique property of ozone is that it has powerful antiseptic and antibiotic properties and can be used for many types of chronic and recurrent infections. Disease -causing (pathogenic) microbes can never become resistant to ozone and ozone will always be able to kill them. Ozone destroys a wide range of microbes from bacteria, viruses, parasites and fungi. So, you can see that ozone is a breakthrough in infection control, as many microbes are now resistant to antibiotic and antifungal drugs. Several types of antifungal drugs can be toxic to the liver.

Ozone increases oxygen delivery to tissues and cells, thereby improving immune function.

Ozone purifies water and air, eliminates pesticides, removes odours from the home, clothes, shoes and bathrooms.

You can generate your own ozone at home with an ozone generator. For more information click on this link bit.ly/ozonekit

Ozone can be administered to a person as an ozonated oil or ozonated water. The oil can be rubbed onto areas of the skin, scalp and nails that are infected with bacteria, viruses and fungi. Ozone oil can be used to reduce warts and cold sores as these are both viral infections.

Ozone gas can also be directed into body cavities such as the external ears, vagina or rectum. This is easily done with a syringe, silicon bag and catheter. You need to be shown how to do this by your doctor or naturopath.

Ozone is such a powerful therapy and yet it's hardly known by the general public. Very few know that you can treat an infected wound with ozone oil instead of using antibiotics. Or that you can use it as anti-ageing medicine, reduce inflammation, address leaky gut, boost your immune system and support your overall healing.

Ozone water is helpful for the following gut problems:

- Helicobacter pylori infection
- Small intestinal bacterial overgrowth (SIBO)
- Dysbiosis (unhealthy microbes throughout the gut)
- Candida or other yeast infections in the gut
- Anal itch caused by yeast infection
- Bacterial colitis
- Intestinal parasites

You may need to drink 1 to 2 litres daily of freshly-ozonated water to reduce gastrointestinal (gut) infections.

Ozone water, oil or gas can be used to improve:

- Infected wounds and ulcers
- Skin infections
- Acne
- Mouth and gum disease

How to use ozone water

Ozone only survives in water for 30 minutes and only if the water is cold. The ozonated water should be drunk within 15 minutes of making it. When you make the ozone water, use water that has been kept cold in the refrigerator. Then start to ozonate the water. Ozone water should only be made and stored in glass, as ozone destroys plastic.

KIT FOR MAKING OZONE WATER

For more information click on this link bit.ly/ozonekit

References

Di Paolo N, et al. Ozone therapy editorial review. Int J Artificial Organs. 2004; 27:168–75.

Bocci V. Biological and clinical effects of ozone: Has ozone therapy a future in medicine? Br J Biomed Sci. 1999; 56:270–9.

Shoemaker JM. Ozone therapy: History, physiology, indications, results. [cited in 2010]. Available from: http://www.fullcircleequine.com/oz_therapy.pdf .

McLean L. The miracle of ozone therapy. [cited in 2009 Jun]. Available from: http://www.zeusinfoservice.com/Articles/TheMiracleofOzoneTherapy.pdf .

Carpendale MT, et al, Ozone inactivates HIV at noncytotoxic concentrations. Antiviral Res. 1991; 16:281–92.

Haug KF, et al, The use of Ozone in Medicine, classical medical ozone textbook. 11 edition 1987.

Sunnen GV. Ozone in medicine: Overview and future directions. J Adv Med. 1988; 1:159–74.

Sharma M, et al, Ozone gas is an effective and practical antibacterial agent. Am J Infect Control. 2008; 36:559–63.

Mechanism of action of ozone on the human lung.[J Appl Physiol (1985). 1989]

Antibacterial effect of ozone on cariogenic bacterial species.[J Dent. 2009]

Fujimura K E, et al. Role of the gut microbiota in defining human health. Expert Rev Anti Infect Ther. 2010 Apr;8(4):435-54. doi: 10.1586/eri.10.14.

R A Rastall Bacteria in the gut: Friends and foes and how to alter the balance. The Journal of Nutrition August 1, 2004 vol. 134 no. 8 2022S-2026S

Patrice D Cani and Nathalie M Delzenne Interplay between obesity and associated metabolic disorders: new insights into the gut microbiota. Current Opinion in Pharmacology 2009, 9:737–743

Rogler G. Prebiotics and probiotics in ulcerative colitis: where do we stand? Digestion. 2011;84(2):126-7. Epub 2011 Apr 15

Sartor RB. Efficacy of probiotics for the management of inflammatory bowel disease. Gastroenterol Hepatol (N Y). 2011 Sep;7(9):606-8

Barbara G, Zecchi L, Barbaro R, et al. Mucosal permeability and immune activation as potential therapeutic targets of probiotics in irritable bowel syndrome. J Clin Gastroenterol. Oct 2012;46 Suppl:S52-55

Bouhnik Y, Alain S, Attar A, et al. Bacterial populations contaminating the upper gut in patients with small intestinal bacterial overgrowth syndrome. Am J Gastroenterol. May 1999;94(5):1327-1331

Mi-Ran Ki et al. Lactobacillus paraplantarum isolated from kimchi inhibits Helicobacter pylori growth and adherence to gastric epithelial cells. J Med Food. 2010 Jun;13(3):629-34

(Corley 2010) Life Extension, Gastro-esophageal Reflux Disease. www.lef.org

Benjamin J et al. Glutamine and Whey Protein Improve Intestinal Permeability and Morphology in Patients with Crohn's Disease: A Randomized Controlled Trial. Dig Dis Sci. 2011 Oct 26

Den Hond E, Hiele M, et al. Effect of long-term oral glutamine supplements on small intestinal permeability in patients with Crohn's disease. JPEN J Parenter Enteral Nutr 1999;23(1):7-11

Sido B, Seel C, Hochlehnert A, et al. Low intestinal glutamine level and low glutaminase activity in Crohn's disease: a rational for glutamine supplementation? Dig Dis Sci 2006;51(12):2170-9

Kuroki F, Matsumoto T, et al. Selenium is depleted in Crohn's disease on enteral nutrition. Dig Dis. 2003;21(3):266-70

Margaret Rayman, Dietary Selenium: time to act, British Medical Journal Vol. 314, 387, 8th Feb. 1997

Brozmanova J. Selenium and cancer: from prevention to treatment. Klin Onkol. 2011; 24(3):171-9.

Naithani R. Organoselenium compounds in cancer chemoprevention. Mini Rev Med Chem. 2008 Jun;8 (7):657-68.

Ganther HE. Selenium metabolism, selenoproteins and mechanisms of cancer prevention: complexities with thioredoxin reductase. Carcinogenesis. 1999 Sep;20(9):1657-66.

Rayman MP. Selenium in cancer prevention: a review of the evidence and mechanism of action. Proc Nutr Soc. 2005 Nov;64(4):527-42.

Fleet JC. Dietary selenium repletion may reduce cancer incidence in people at high risk who live in areas with low soil selenium. Nutr Rev. 1997 Jul;55(7):277-9.

Peters U, Takata Y. Selenium and the prevention of prostate and colorectal cancer. Mol Nutr Food Res. 2008 Nov;52(11):1261-72.

Willett WC, et al. Pre-diagnostic serum selenium and risk of cancer. Lancet. 1983 Jul 16; 2 (8342):130-4.

Salonen JT, et al. Association between serum selenium and the risk of cancer. Am J Epidemiol. 1984 Sep;120 (3):342-9.

Mark SD, Qiao YL, et al. Prospective study of serum selenium levels and incident esophageal and gastric cancers. J Natl Cancer Inst. 2000 Nov 1;92(21):1753-63.

Fleming J, Ghose A, Harrison PR. Molecular mechanisms of cancer prevention by selenium compounds. Nutr Cancer. 2001;40 (1):42-9.

Sinha R, El-Bayoumy K. Apoptosis is a critical cellular event in cancer chemoprevention and chemotherapy by selenium compounds. Curr Cancer Drug Targets. 2004 Feb;4 (1):13-28.

Bhattacharya A. Methylselenocysteine: a promising antiangiogenic agent for overcoming drug delivery barriers in solid malignancies for therapeutic synergy with anticancer drugs. Expert Opin Drug Deliv. 2011 Jun;8(6):749-63.

Langmead L et al. Anti-inflammatory effects of aloe vera gel in human colorectal mucosa in vitro. Aliment Pharmacol Ther. 2004b Mar 1;19(5):521-7

Koutroubakis IE, Malliaraki N, et al. Decreased total and corrected antioxidant capacity in patients with inflammatory bowel disease. Dig Dis Sci. 2004 Sep;49(9):1433-7.

Langmead L et al. Randomized, double-blind, placebo-controlled trial of oral aloe vera gel for active ulcerative colitis. Aliment Pharmacol Ther. 2004a Apr 1;19(7):739-47

Vallejo F, et al, "Phenolic compounds in edible parts of broccoli inflorescences after domestic cooking" Kidmose U and Kaack K. Acta Agriculturae Scandinavica B 1999:49(2):110-117

Song K and Milner J A. "The influence of heating on the anticancer properties of garlic," Journal of Nutrition 2001;131(3S):1054S-57S

George D F, Bilek M M, and McKenzie D R. "Non-thermal effects in the microwave induced unfolding of proteins observed by chaperone binding,"

Quan R (et al) "Effects of microwave radiation on anti-infective factors in human milk," Pediatrics 89(4 part I):667-669.

Kim EK et al. Fermented kimchi reduces body weight and improves metabolic parameters in overweight and obese patients. Nutr Res. 2011 Jun;31(6):436-43. http://pmid.us/21745625.

Won TJ et al. Therapeutic potential of Lactobacillus plantarum CJLP133 for house-dust mite-induced dermatitis in NC/Nga mice. Cell Immunol. 2012 May-Jun;277(1-2):49-57. http://pmid.us/22726349.

Won TJ et al. Oral administration of Lactobacillus strains from Kimchi inhibits atopic dermatitis in NC/Nga mice. J Appl Microbiol. 2011 May;110(5):1195-202. http://pmid.us/21338447.

Hong HJ et al. Differential suppression of heat-killed lactobacilli isolated from kimchi, a Korean traditional food, on airway hyper-responsiveness in mice. J Clin Immunol. 2010 May;30(3):449-58. http://pmid.us/20204477.

Park KY et al. Kimchi and an active component, beta-sitosterol, reduce oncogenic H-Ras(v12)-induced DNA synthesis. J Med Food. 2003 Fall;6(3):151-6. http://pmid.us/14585179.

Kim YS et al. Growth inhibitory effects of kimchi (Korean traditional fermented vegetable product) against Bacillus cereus, Listeria monocytogenes, and Staphylococcus aureus. J Food Prot. 2008 Feb;71(2):325-32. http://pmid.us/18326182.

Sheo HJ, Seo YS. The antibacterial action of Chinese cabbage kimchi juice on Staphylococcus aureus, Salmonella enteritidis, Vibrio parahaemolyticus and Enterobacter cloacae. J Korean Soc Food Sci Nutr 2003, 32:1351-1356.

Zhang YW et al. Effects of dietary factors and the NAT2 acetylator status on gastric cancer in Koreans. Int J Cancer. 2009 Jul 1;125(1):139-45. http://pmid.us/19350634.

Lee SA et al. Effect of diet and Helicobacter pylori infection to the risk of early gastric cancer. J Epidemiol. 2003 May;13(3):162-8. http://pmid.us/12749604.