



OPTIMISE YOUR

Gut Health

An evidence-based guide focusing on
the foundations of good gut health.

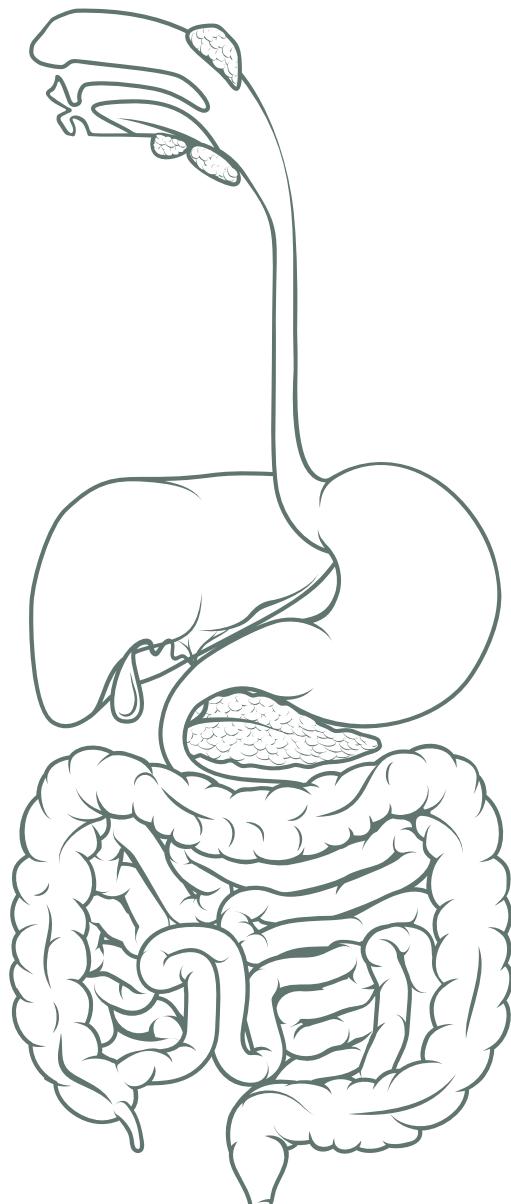
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All disease begins in the gut

HIPPOCRATES



Introduction



The 'gut' refers to your whole digestive tract. It's a complex system and one that you rely on every single day. Unfortunately digestive issues are becoming increasingly common, which can be attributed to our modern fast paced lifestyle and less than ideal food choices. One in five people will experience some kind of digestive discomfort or disorder. What's more, science has established a strong link between the state of your gut and your mental, immune, and hormonal health. Therefore when your gut isn't functioning properly, the rest of you body will suffer too.

The good news is that through diet and lifestyle changes you can help to restore balance and prevent future problems from occurring. This ebook will explore 5 different evidence-based ways to improve your gut health. The best part? They don't involve expensive supplements, quick fixes or marketing claims. These 5 things are low-cost and accessible to almost anyone. They form the foundations of good gut health.

Everybody is different and will have different needs. The advice given in this book is of a general nature and does not take into account your individual circumstances. So please consult your health care practitioner before making any major diet or lifestyle changes.



01

INCORPORATE 30+ DIFFERENT PLANT FOODS INTO YOUR DIET EVERY WEEK

Consuming a variety of different plant foods exposes you to different prebiotic fibres, resistant starch and polyphenols, which feed different types of bacteria. Ensuring that you eat a wide range of plant foods will promote an abundance of beneficial bacteria and reduce levels of pathogenic (bad) bacteria.

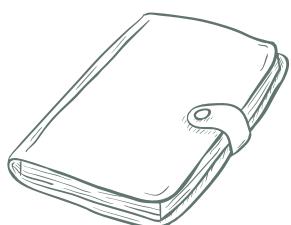


It has been found that people who consume more than 30 different plant foods every week have a much more diverse gut microbiome and produce more short-chain fatty acids than those who consume less than 10 different plants a week. [1]. Diversity is a marker of good gut health, and the more variety in your diet, the more diverse your gut bugs will be.

Short-chain fatty acids (SCFAs) are produced when dietary fibre is fermented in the large intestine. SCFAs such as butyrate have many important functions, such as preventing intestinal hyperpermeability, protecting against inflammation, fuelling your intestinal cells, & reducing the risk of colorectal cancer. SCFA production is reliant on two things - the right bacteria in your gut, and fibre, both of which are promoted when you consume a wide variety of plant foods.

Unfortunately most of us don't have a super varied diet and tend to stick to buying the same foods and making the same meals. This could be impacting your gut health, and contributing to a less diverse microbiome that doesn't produce as many SCFA's.

SO HOW CAN WE ADD VARIETY?



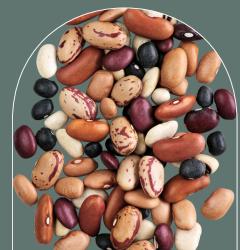
Start by keeping a diary and writing down every time you eat a serving of a new plant food. It could be a wholegrain, legume, nut, seed, fruit, veg, herb or spice. At the end of the week tally it up. Once you have an understanding of just how varied your diet actually is, you can begin to add more variety.

Aim for 30 servings of different whole plants and then an additional 10 herbs and spices. This allows you to get an array of nutrients and fibre from the whole plants, and then beneficial polyphenols from the herbs and spices.

Here are some simple swaps you can make to include more plant foods in your diet:



**Kidney
beans**



**4 bean
mix**



**Frozen
blueberries**



**Mixed
berries**



Rice



**Rice &
quinoa**



**White
mushrooms**



**Mixed
variety**



**Iceberg
lettuce**



**Mixed
greens**



Cashews



**Mixed
nuts**



Oats



Muesli

EATING SEASONALLY

The best way to naturally add variety to your diet is to eat seasonally.

SUMMER

Apricots, Asparagus, Bananas, Beetroot, Berries, Capsicum, Carrot, Cherries, Cucumber, Eggplant, Figs, Figs, Grapes, Leek, Lychee, Mulberries, Peaches, Pears, Plums, Radish, Rhubarb, Squash, Tomatoes, Zucchini

AUTUMN

Apples, Artichoke, Bananas, Beetroot, Brussel Sprouts, Cabbage, Capsicum, Carrots, Cauliflower, Celery, Eggplant, Figs, Grapefruit, Nashi, Oranges, Papaya, Pears, Pomegranate, Spring Onion, Strawberries, Swede, Sweet Potato, Turnips

WINTER

Apples, Bananas, Beetroot, Broccoli, Brussel Sprouts, Cabbage, Carrots, Celery, Fennel, Grapefruit, Kale, Kiwi Fruit, Leek, Lemons, Limes, Mandarins, Okra, Oranges, Parsley, Parsnips, Peas, Persimmon, Potatoes, Radish, Rhubarb, Spinach

SPRING

Asparagus, Bananas, Beetroot, Berries, Capsicum, Carrots, Cauliflower, Cherries, Cucumber, Globe Artichoke, Grapefruit, Leek, Lemons, Limes, Lychees, Mandarin, Mulberry, Papaya, Parsley, Peas, Silverbeet, Spinach, Spring Onion, Broccoli



02

INCORPORATE BITTER FOODS INTO YOUR DIET

Bitter tasting foods have been used in many cultures throughout history to support digestion, specifically in the upper digestive tract. When you consume a bitter food, bitter receptors in your mouth and your stomach are stimulated. This triggers the release of saliva and stomach acid, which are both essential for the proper breakdown of food. It also triggers the vagus nerve, which is the main nerve in your body that regulates digestion, and draws vital blood circulation to digestive organs [2].

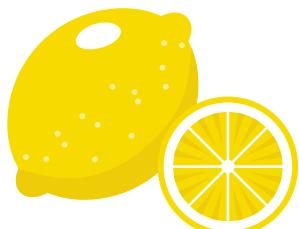
So why is this important?

A busy lifestyle, eating on the go, not preparing meals yourself, and not taking the time to relax and enjoy your meals all lead to a bypass of a very important pre-digestion stage called the cephalic phase of digestion. This phase occurs before you've even taken your first bite.

When you see and smell food your body prepares itself in preparation of eating by stimulating saliva, stomach acid and digestive enzymes. This is vital when it comes to digesting food, as without the important digestive juices you cannot break down food properly. This can lead to undigested food entering your intestinal tract which can lead to unpleasant IBS symptoms, acid reflux, nutrient deficiencies, dysbiosis (imbalance in gut bacteria), small intestinal bacterial overgrowth (SIBO), intestinal hyperpermeability, and food intolerances.

When you consume bitter foods, the cephalic phase of digestion is triggered and your body prepares itself to digest food.

SO HOW CAN WE ADD BITTERS?



- Have a glass of water with the juice of half a lemon or 1 tbsp of apple cider vinegar diluted in water 15 minutes before meals.*
- Add bitter greens to your meals such as kale, arugula and dandelion greens.

*Always rinse your mouth out well with water afterwards and/or drink through a straw to prevent the acidity destroying your tooth enamel.

03

PRACTISE MINDFUL EATING

When you are busy or stressed, your sympathetic nervous system (SNS) takes over and you enter fight or flight mode. Blood flow and energy are directed into your arms and legs, preparing you to run away or fight. Pupils become dilated, muscles can start trembling, mouth can become dry, and digestion no longer becomes a priority.

This is a problem because the SNS can interfere with muscle contractions along the digestive tract, as well as decrease very important digestive secretions like saliva and stomach acid, which can lead to digestive problems [4].

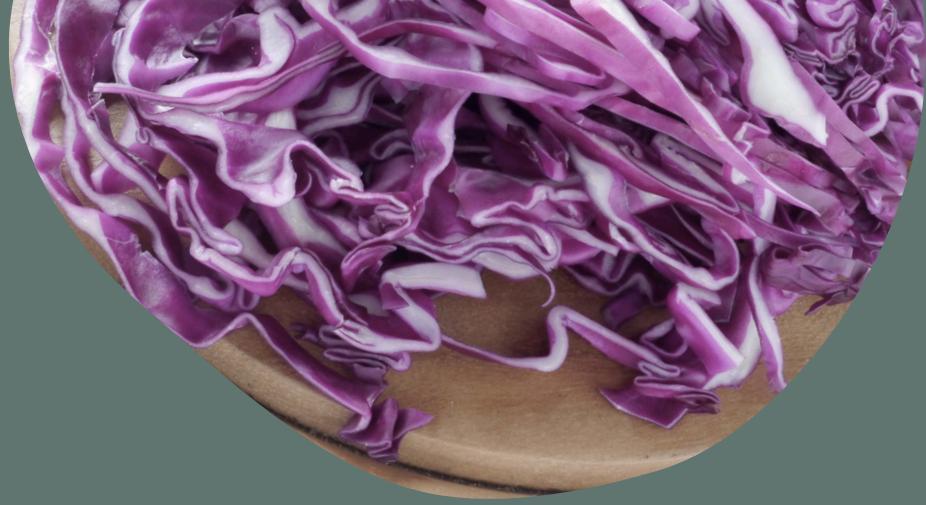
What mindful eating does is activate your parasympathetic nervous system (PNS), aka 'rest and digest' mode, as well as the all important cephalic phase of digestion. When your PNS is activated, digestion is the priority and our body will readily stimulate digestive juices and blood flow to your digestive organs. This allows you to digest food properly.

HOW TO PRACTICE MINDFUL EATING

- 1** Tune into your body and ask yourself - Am I hungry or is there another reason I want to eat? Can I give my full attention to eating right now? Will this food serve my health and wellbeing?
- 2** Sit down at a table to eat and try to minimize any distractions. Turn off the TV and put your phone in another room. Bring your awareness to your breathing and breathe down into your belly. This will help to put your body into 'rest and digest' mode.
- 3** Bring your attention to the present moment and focus on the appearance, taste and smell of the food. Chew your food slowly and pause for a moment between bites.
- 4** Eat until you are satisfied but not overly full. It can take up to 20 minutes for your stomach to let your brain know that you're full. Overeating will also impair digestion, so pausing and eating slowly will help to prevent this.



04



CONSUME FERMENTED FOODS DAILY

Fun fact: There are ten times more bacterial cells in your body than there are human cells. This means you are more bacteria than you are human! The term for this community of microorganisms is called the microbiome, which includes not only bacteria but also viruses and fungi. The majority of these microbes reside in your large intestine, where beneficial and harmful bacteria are found. When the harmful microbes outweigh the good ones this is called dysbiosis. The microbiome has a huge influence on many aspects of your health and risk of getting sick.

Dysbiosis can occur as a result of antibiotic use, an unhealthy diet (unhealthy fats, sugar, processed foods & food additives), alcohol, pesticide exposure, stress and anxiety.

Probiotics are live bacteria that when consumed, adhere to your gut wall and have many health benefits [5].

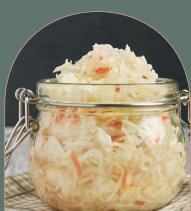
They protect your gut against the invasion of harmful bacteria and promote a more balanced bacterial composition.

Fermented foods contain a variety of probiotic bacteria that exhibit health-promoting properties [5]. A recent study explored the effects of fermented foods on the microbiome. They found that those who included 6 small servings of fermented foods into their diet every day experienced significant increases in microbial diversity. They also experienced an increased immune response and decreased inflammatory markers [6]. This means that a diet featuring fermented foods has the ability to reduce inflammation in the body, which is the driver of almost all chronic diseases.

Some great sources of fermented foods:



Yoghurt



Sauerkraut



Kefir



Kimchi



Kombucha



Miso*



Fermented veggies



Raw ACV



Tempeh*



Kvass

*Avoid cooking at high heat as this will destroy the live bacteria.

05

EAT AN ABUNDANCE OF POLYPHENOL RICH FOODS

Polyphenols are natural compounds that are found in many foods including fruit, vegetables, tea, coffee and wine.

Polyphenols are known for their powerful antioxidant, anti-inflammatory, anti-cancer, anti-diabetic and neuroprotective properties [3]. They have many health benefits and have been shown to reduce the risk of many chronic conditions.

So how do they benefit the gut? Polyphenols are actually very poorly absorbed by the body. You may only absorb 5-10%. This means the remaining 90-95% sit in the intestines for a longer period of time, where they can work their magic. Polyphenols are a prebiotic, meaning that they feed and promote the growth of beneficial bacteria. This bacteria then transform the polyphenols into bioactive compounds which have many health benefits beyond the gut.

In a recent study, people who were given a polyphenol-rich diet experienced a significant decrease in zonulin [3]. Zonulin is a protein that regulates intestinal permeability. Lower zonulin levels indicate that these people experienced reduced intestinal permeability, or improved leaky gut. They also experienced an increase in butyrate producing bacteria. Butyrate is a short-chain fatty acid and the main source of energy for intestinal cells. Butyrate is thought to decrease inflammation and promote a healthy gut lining.

Polyphenols are found in most plants but are especially high in:



Berries



Cacao



Herbs



Spices



Tea



Coffee



Turmeric



Oregano



Rosemary



Mint



Hazlenuts



Pecans



Apples



Flaxseed



Artichoke



Olives



Red onion



Plums

KEY TAKEAWAYS

- Eat 40 different plant foods every week. 30 different whole plants and 10 herbs & spices.
- Eating seasonally will naturally add variety and keep costs down.
- Include bitter foods into your diet every day.
- Have a glass of lemon or ACV water 15 minutes before meals.
- Practice mindful eating.
- Consume 6 small servings of fermented foods daily.
- Eat polyphenol-rich foods every day.

Remember, it's not about being perfect. It's about making small consistent changes every day. These small changes may not look and feel like they are making a difference, but over time they will better not only your gut health but the health of your whole body.

Let's Chat



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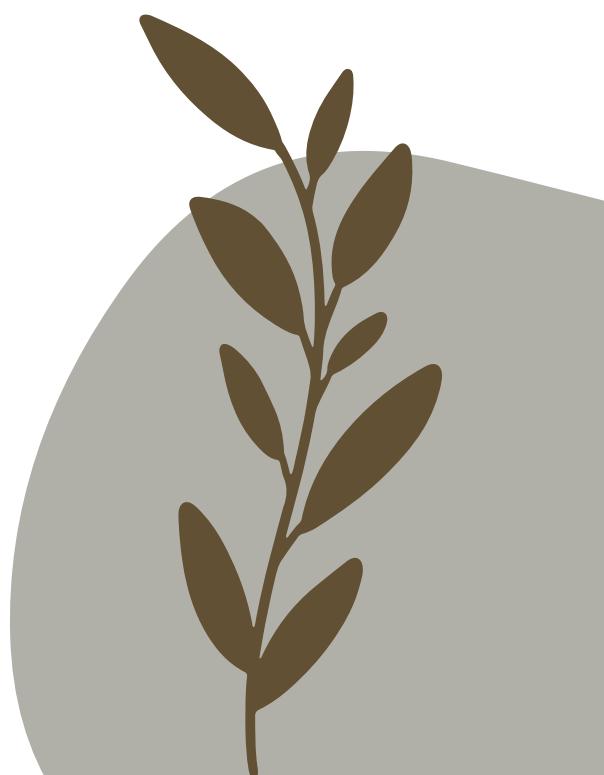
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Dr. Natalie Hennessey is a knowledgable Naturopathic Doctor with a focus in women's reproductive health care. She holds a Bachelor of Science in Biology from the University of Prince Edward Island and a Doctor of Naturopathy from the Canadian College of Naturopathic Medicine. Natalie is passionate about providing her patients with the individualized care, attention, and empowerment they need to achieve optimal health.

Natalie is a member in good-standing with the Canadian Association of Naturopathic Doctors (CAND), the PEI Association of Naturopathic Doctors (PEIAND), and the New Brunswick Association of Naturopathic Doctors (NBAND).

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GLOSSARY

Bioactive compound

A type of chemical found in plant foods or produced by gut bacteria that often has health benefits.

Butyrate

A short-chain-fatty-acid produced by bacteria in the gut with very important health benefits.

Cephalic phase of digestion

The pre-digestion phase in which the body releases digestive juices in response to the sight, smell, taste or thought of food.

Digestive enzymes

Enzymes secreted in your digestive tract that break down food so you can absorb the nutrients.

Dysbiosis

An imbalance in the bacterial community in the gut, thought to be linked to many health conditions.

Inflammation

An immune response to a stressor such as wound, pathogen or irritant. Chronic inflammation is thought to be the driver of many chronic diseases.

Inflammatory markers

Signs that are tested for in the blood that detect inflammation in the body.

Intestinal hyperpermeability

When the tight junctions between the intestinal cells pull apart and allow harmful substances into the blood.

Microbial composition

The bacteria that make up the microbiome.

Microbiome

A community of microorganisms living in a certain part of the body ie. the gut, skin, mouth.

Neuroprotective

Protects nerve cells against damage, degeneration and impairment.

Parasympathetic nervous system

A branch of the autonomic nervous system which controls bodily functions at rest such as digestion.

Pathogenic

Bacteria, virus or other microorganism that can cause disease.

Phytonutrients

Chemicals produced by plants to protect themselves, which have various health benefits to humans.

Polyphenols

A type of phytochemical found in plants with many health benefits.

Prebiotic

A type of non-digestible fiber that feeds and promotes the growth of beneficial bacteria in the gut.

Probiotic

Live organisms that, when consumed, adhere to the

intestinal wall and benefit the health of the gut.

Resistant starch

A form of non-digestible fiber that supports a healthy gut microbiome.

SIBO

Small intestinal bacterial overgrowth occurs when bacteria colonise the small intestine where they aren't usually found, causing unpleasant symptoms.

Short-chain-fatty-acid

Substances produced by gut bacteria that have many important roles such as being the main source of energy for intestinal cells.

Sympathetic nervous system

A branch of the autonomic nervous system that is designed for survival. Also known as fight or flight.

Vagus nerve

A major nerve that runs from the brain to the abdomen and is responsible for the link between the brain and the gut.

Zonulin

A protein released in the body that regulates intestinal permeability. Elevated zonulin levels indicate the presence of leaky gut.

