"LET FOOD BE THY MEDICINE AND MEDICINE BE THY FOOD."

Hippocrates
GIVE IT TO THE GUTS

We need to give it to our guts. They work awfully hard to keep our body systems maintained and functioning in a way that remains stable under at times, somewhat serious duress.

The importance of gut health is highly underestimated and it is only now that we are seeing a surge in sharing the extensive research that exists about the importance of our digestive health when connected to our emotional wellbeing. We are now beginning to put the focus where it needs to be. On this somewhat ignored and at times unsupported system of our body.

Every person would have a higher version of whole health if they focused on gut health as much as any other area of their health and fitness. For many of us, our physical health begins and ends with the way our gut functions and the way we support it.

There is a reason why the digestive system, or the gut, is known to many in the medical world as the ‘second brain’ - for the health of this vital part of our body actually creates a flow of chemicals that either support or inhibit brain function and our overall health.

Further studies into the importance of our gut health are highlighted in a recent study by UCLA:

“Researchers have known that the brain sends signals to your gut, which is why stress and other emotions can contribute to gastrointestinal symptoms. This study shows what has been suspected but until now had been proved only in animal studies: that signals travel the opposite way as well.

‘Time and time again, we hear from patients that they never felt depressed or anxious until they started experiencing problems with their gut,’ [Dr. Kirsten] Tillisch said. ‘Our study shows that the gut–brain connection is a two-way street.’”

It’s wonderful that we are seeing more information come to the public eye around our gut health. However easy to obtain, easy to digest (pardon the pun) information on why the gut and brain are connected is a little harder to come by.

Within this eBook, we will dive a little deeper into the gut and brain connection, the health and wellbeing of our gastrointestinal tract and ways in which we can support our own gut-health through simple, easy and timeless techniques and recipes.

GIVE YOURSELF A GUTFUL AND LOVE YOUR GUTS.

Alice
The Digestive System

I believe that we are intelligent enough to understand our body on a little bit more of a deeper level. So to connect with the reason why it’s important to support our gut health, we must first understand the function of the gut and digestive tract itself and its role in our general health and emotional wellbeing.

WHAT IS THE DIGESTIVE SYSTEM?

The digestive system works by obtaining nutrients needed for life from the external environment (i.e. - the food we eat) transfers these nutrients into plasma (a clear fluid part of our blood), and eliminates undigested food remains back out into the external environment (i.e. through our poo!).

The gastrointestinal tract is a flexible tube that runs all the way from our mouth down our oesophagus, stomach, small intestine, large intestine, rectum and then anus. The inner space within the tube of the gastrointestinal tract is called the lumen. Fun fact: Food that is within the lumen and has not been digested by the body is technically still classified as ‘outside the body’ because there is an opening at the mouth and anus that meets the external world.
When it comes to our gut it’s not simply a jumbled maze of basic tubes, pipes and containers. Within each and every part of the gut there is an amazing amount of detailed layers that all have different functions when it comes to processing nutrients, protecting our body, supporting our health and keeping our body stable. The diagram above shows a detailed look at the layers that are found within the lining of our intestines.

**MICROBIOTA - SAY WHAT?**

Like I said, I know you’re smart, so let’s get a little technical. I am confident you will understand the importance of healing your tummy... *helping it to help you* support your overall wellbeing.

Within our gut and intestines there are over 100 trillion microbiota cells. You may have heard of the term gut ‘flora’ before - perhaps in an advertisement for probiotics. Your gut flora is a general name for the microbiota (bacteria) in your digestive system. Human beings have clusters of bacteria in different parts of the body, such as in the surface or deep layers of skin, mouth and genitals. The gut has its own large group of bacteria.
Within our gut these 100 trillion microbiota cells add up to a 1-2kg mass. This is equivalent to the brain in weight and is one of the reasons why we call the digestive system ‘The Second Brain’.

Can you imagine carrying your body’s bacteria around in a bag? It would weigh over 5kgs.

**THE GUT AND YOUR BRAIN. BESTIES FOR LIFE OR WORST ENEMIES?**

All of these microbiota (bacteria) within our gut form what is called a microbiome. Think of this as a community. If we were to draw a cartoon of this, it may look like an entire little village living inside our guts. And just like in a real village, there are ‘must-haves’ to keep these villagers smiling or else they get angry and cause a heck-of-a-lot-of-ruckus. In the case of humans and our guts - when our gut microbiome is not supported the results for us can mean disease and illness.

Within our gut lining (layers) there is a connection to our nervous system and therefore our brains.

This is known as the **enteric nervous system**. It is the enteric nervous system that controls our gut behaviour independently of the brain, though amazingly 70-80% of our brain chemicals are made in the gut and a whopping 90%+ of our ‘feel good’ chemicals come from our gut as well.

No doubt, it really is time to learn to understand a little more about how we can support a healthy digestive system and in turn, support our emotional wellness.

The gut microbiota help to produce brain chemicals such as GABA, tryptophan, serotonin, histamine and dopamine. These chemicals are all made within our gastrointestinal tract and can effect our emotional wellbeing.

Studies show that in a large percentage of patients presenting with stress, anxiety, depression and chronic fatigue, these chemicals are not being produced at optimal levels within the gut. Many studies now show that when digestive health is prioritised healing of these diseases and conditions is possible within a short period of time.

Studies into autism, ADD and ADHD in children also show that the larger percentage of these children also have problems with their digestive system and parents are now advised to improve the diet when relating to gut health to improve the mental or emotional condition in the child.
It's worth noting that a diet supportive of gut health - one where all processed foods and sugars are removed - is a vast improvement to a lot of children's diets today and can have a positive effect in itself for them. Good sleep, good concentration and good moods are all signs that a child has a properly functioning digestive system.

**GOOD CHEMICALS**

**KEY NEUROTRANSMITTERS IN THE GUT**

A neurotransmitter is a chemical that communicates messages from the brain to the body - like the brain telling our heart to beat, lungs to breathe or digestive tract to digest.

**SEROTONIN**

When we have a depletion of serotonin in our body, our mood, sleep, weight, concentration and overall sense of wellbeing can be severely inhibited. Considering how many of us feel emotionally disconnected it may not surprise you to learn that more than 80% of our population have substandard serotonin levels.

**NORADRENALINE**

This chemical affects concentration, memory and mood. Over-production of noradrenaline can cause high-stress, panic attacks and anxiety. Norepinephrine affects parts of the brain, such as the amygdala, where attention and responses are controlled. Norepinephrine also underlies the fight-or-flight response and, along with epinephrine, directly increasing heart rate, triggering the release of glucose from energy stores and increasing blood flow to skeletal muscle. In cave-man days noradrenaline would have been present in the fight or flight mode when a person was in danger and needed to flee.

**DOPAMINE**

Dopamine affects mood regulation, memory and movement. Signs and symptoms of a deficiency include restless legs, low libido, low mood, depression and dull dreams. Too little dopamine can lead to Parkinsons Disease. There is also a propensity to addiction for those with low dopamine levels.

**GABA**

GABA is required for sleep maintenance and is our main inhibitory brain chemical. It is needed to remain calm. Signs and symptoms of GABA deficiency are anxiety or panic attacks, alcohol cravings, insomnia or struggle to fall asleep or remain sleeping throughout the night.
**ACETYLCHOLINE**

Acetylcholine is involved in sleep, memory and learning. Signs and symptoms of deficiency include poor concentration, light sleep, fatigue, anxiety and a high reaction to stress. As well as lack of concentration, poor sleep or dream patterns. Problems staying asleep and poor memory function.

All of these chemicals that affect a gross amount of our physical and emotional health all stemming from our digestive system.

**INHIBITORS OF GUT HEALTH**

Many different factors affect the health of our gut. A diet that doesn’t provide our body with the right balance of nutrients it needs to support the digestive system is one the main contributors. This doesn’t just affect those who have an *obviously* unhealthy diet.

Many of us focus on health and stick to *rigid* eating patterns that omit a lot of foods or food groups and either out of habit or diet eat the same foods day in and day out. This can mean that although the foods we eat are filled with nutrients, we are not providing our body with the *balance* it needs from other natural foods.

This can apply for those that eat the same breakfast and lunch every single day or include only a limited number of the same natural foods in their diet. Because we are able to get certain fruits and vegetables all year round now and have food available in abundance we are not driven by the seasons or locality as much as we could be. Which would traditionally drive a more balanced way of eating.

A diet high in sugar, gluten, or artificial flavours and preservatives, though can also potentially be one that seems healthy.

High consumption of alcohol or regular binge-drinking will adversely affect the health of your gut as alcohol is inflammatory. Even red wine. Cigarettes and other recreational drugs will also cause a major imbalance to gut health.

Party drugs which pump your system with adrenaline or other ‘high’ feeling chemicals will not only damage the lining of your stomach with the corrosive fillers used to pack them out, they also disrupt the natural balance of naturally occurring feel-good hormones, so while you may feel amazing for a few hours, the comedown will last for a long time, causing bad moods, poor concentration, anxiety and depression.
Prescription drugs kill off good bacteria in the gut and cause an imbalance in the gut flora (microbiome) and make it difficult for the digestive system to repair itself and balance the bacteria.

**Leaky Gut**

**What is a Leaky Gut?**

The gut naturally allows fluids and nutrient molecules to pass through the wall of the intestine. This ability that it has to allow nutrients through means the intestinal wall is known as being *permeable* and this is how we absorb nutrients into our blood. One of the very basic functions of the cells that line the walls of our intestines is to be able to regulate this intestinal permeability.

It is found within a very high percentage of those with a gluten intolerance and nearly 100% of those with celiac disease that gluten can cause the cells of the gut to release a protein called zonulin, which can break apart tight junctions in the lining of the intestine. If you look at the diagram on page 5 you will see the many layers of the gut wall.

Infections, stress, and nutrient imbalance can also cause these junctions to break apart and when these junctions are broken apart you have leaky gut. These layers become penetrable and eventually toxins and micro-particles of food to slip into the blood stream and travel around the body.

Your immune system recognises these toxins as foreign invaders (pathogens) and attacks them causing inflammation and distress in the body.

**What Causes Leaky Gut?**

Leaky gut is typically caused by food or toxins. Gluten is the number one cause of leaky gut, though other inflammatory foods such as dairy (the casein or dairy protein is in the top 5 most inflammatory foods), fructose or processed sugar, alcohol and drugs are also high on the list.

Leaky gut caused by infections are usually due to a candida overgrowth, intestinal parasites, and small intestine bacterial overgrowth. Toxins include the common painkillers such as Nurofen or Panadol and also anti-inflammatory tablets such as Voltaren and ibuprofen. Anxiety, stress and age can also contribute to leaky gut.
**Leaky Gut**

There are common signs to look out for if you are concerned that you may have leaky gut.

1. Irritable bowel syndrome or digestive issues such as gas or diarrhea
2. Allergies that are seasonal or asthma
3. PMS or PCOS. Hormone imbalances
4. Being diagnosed with an Auto Immune disease such as rheumatoid arthritis, Hashimotos, Crohns or Graves disease.
5. Diagnosis fibromyalgia or chronic fatigue syndrome
6. Depression, Anxiety, ADD, or ADHD or other depressive mood or mind disease/disorders
7. Bad skin. Acne, psoriasis, eczema
8. Being diagnosed with candida overgrowth
9. Food intolerances or allergies.

**HOW DO YOU HEAL A LEAKY GUT?**

You can heal leaky gut by following these steps below.

◊ Remove all foods and drugs that could be potentially causing the condition. The key ones being sugar or fructose, gluten, dairy, alcohol and also prescription drugs and recreational drugs. I would also recommend removing trans fats or hydrolysed vegetable oils or seed oils such as canola, vegetable and cotton seed oil. Remove all artificially flavoured or coloured food and preservatives. You should be left with a diet rich in whole, real foods.

◊ Add healing and repairing foods back to your diet such as bone broths and a balance of healthy real foods as close to the source as possible.

◊ Restore your beneficial gut bacteria (the recipes in this book are perfect for that).

◊ Repair the lining of you gut. While you can fix the majority of leaky gut using foods as your functional medicine, it may be beneficial for you to include a supplement like L-glutamine, which is an amino acid that helps to rejuvenate the lining of the gut wall.

I would also recommend seeing a holistic nutritionist or naturopath who can do a stool sample and help you understand ways of supporting a healthy digestive system and therefore a healthy body and mind.
Healing at Home

Probiotics are not the silver bullet, though building an arsenal or a kit-bag of health and wellbeing survival techniques that would rival Bear Grylls lost in the desert is without a doubt going to benefit your life.

The more knowledge you have about your own body and the way it functions and the more solutions you have, the greater the propensity for you to achieve a state of wellbeing that allows you to live a long and active life, free from pain and disease.

Adding probiotics to your diet are going to be a key part of increasing and supporting good bacteria within your gut, therefore supporting your overall health. Fermenting is one of the best ways to add healthy bacteria to your digestive system and keep your gut flora (microbiome) happy.

Fermenting converts sugars – glucose, fructose and sucrose – into cellular energy and a metabolic byproduct (lactic acid), which produces digestive enzymes and healthy gut flora.

The process of lactic acid fermentation enhances the micro-nutrient profile of foods and which means they’re full of probiotics, enzymes, vitamins and minerals.

Benefits of Fermenting

◊ The lactic acid produced during fermentation promotes the growth of healthy flora in the intestine.
◊ Fermentation increases Vitamin A and Vitamin C levels. The lactic acid helps increase the ability for foods to be digested within the intestine and increases the Vitamin A and Vitamin C.
◊ Microorganisms in fermented food help to bind the toxins within food and remove them from the body instead of seeing them passed through the gut wall and into the bloodstream causing inflammation.
◊ The fermentation process cuts the sugar content in foods down. Sugar within foods starts the fermentation process.
◊ Fermented foods are high in Vitamin K2 which has been researched to help reduce the rate of cancer.
◊ When your gut flora is healthily balanced you will absorb nutrients in food more easily and adding fermented foods to your diet will allow for this.
◊ A healthy gut makes for a healthy immune system and healthy emotional health. The digestive system is one of the largest organs in the body and many diseases spring straight from the gut. Fermented foods help strengthen your immune system so that you can fight any disease or illness and increase your chance of overall health.
Fermentation

A GROWING TREND FOR AN ANCIENT TRADITION

It is wonderful that there are so many of us now becoming interested in what is an the an-
cient tradition of fermented and cultured foods. The term functional medicine can be used
to describe many fermented or cultured foods and when Hippocrates said “let thy food be thy
medicine and thy medicine be thy food” he may well have been dolloping sauerkraut on his
roast and drinking a pint of kombucha.

Health conscious folks and those with ailments are turning to fermented foods to increase their
digestive health, reduce the risk of cardiovascular disease and increase their overall immune
system health.

WHAT IS FERMENTATION?

Fermentation is the chemical breakdown of a substance by bacteria, yeasts, or other microor-
ganisms, typically involving effervescence and the giving off of heat.

The process of fermentation is an anaerobic activity because it occurs without oxygen. The
vegetables or fruits that are fermenting are done so when submerged under a brine, or its own
juices. This will typically occur inside a ceramic crock pot, a glass jar or air tight vessel. Some-
times the leaves of the vegetables, such as cabbage, are used as the lid - or the plug - to make
the vessel airtight and to hold the vegetables in.

Over the course of the fermenting period, the bacteria create the lactic acid and the food begins
to have a distinctive flavour with ‘bite’. This process also helps to preserve the food which can
then last for months if stored correctly. Some fermenting processes simply involve packing the
foods in dry salt and allowing a natural fermentation process to occur.

INCREDIBLE HEALTH BENEFITS

It is important to look for ‘lacto-fermented’ foods, which is where the lactic acid is used to
ferment the food such as described above.

These days, as is typical in our ‘instant’ culture, food manufacturers are brining a lot of foods
and putting them on the supermarket shelves as a fermented food though the actual process is
not remotely the same and the beneficial probiotics are missing. This is why if you are strongly
focused on using these functional foods as part of healing that you look for lacto-fermented
types. This will be printed on the label usually and you will find them in the fridge.

Most likely, fermented foods were discovered in days where foods needed to be stored for long
periods after the season they were grown in was over. It is likely that it was somewhat of an ac-
cident, though the tradition now of using fermented foods to support health and heal the body
are now common in many cultures.
Fermentation

Many of your favourite foods and drinks may already be fermented. Sourdough for example. Some olives, salami, sauerkraut, cheese, wine, beer, soy sauce, chocolate, coffee, pickles, and yoghurt.

QUESTIONS ON FERMENTING

Can I get food poisoning from eating fermented foods?
If properly made, fermented foods are very safe to eat. Fred Breidt, a microbiologist with the USDA has said that “properly fermented vegetables are actually safer than raw vegetables which may have been exposed to pathogens like E. coli on the farm… With fermented products there is no safety concern. The reason is the lactic acid bacteria that carry out the fermentation are the world’s best killer of other bacteria.”- San Francisco Gate, June 2009.

I have been fermenting for years, as did my mother before me and I can assure you that if you do have a batch that goes ‘bad’, you will know about it. It will either have visible mold on it, as in the case with kombucha SCOBY’s or vegetables, or it will smell so bad you won’t need a second opinion. Straight into the bin. I have had this happen once in all of my time fermenting foods and drinks.

I’m lactose or dairy intolerant, can I still eat lacto-fermented foods?
When using the lacto-fermentation process, the starches and sugars within the vegetables are converted to lactic acid by a healthy bacteria called lactobacilli. This doesn’t have any reference to the lactose in dairy. However, many lacto-fermented foods are made with a product called ‘whey’ (there is a recipe for whey further in this book) and this is made from dairy such as yoghurt or milk. If you are allergic or severely intolerant to dairy then you may not be able to eat lacto-fermented foods made with whey. In recipes you can use salt and or even vinegar in place of whey.

I have found that many people intolerant to dairy can still eat lacto-fermented foods made with dairy whey as the lactose is greatly reduced in the fermenting process. The health benefits would warrant you giving it a go.

How long can I keep my fermented foods before eating?
The natural state of lacto-fermented foods means that they do not go off as quickly as foods you may by from a supermarket. The time frame for keeping vegetables differs depending on the structure or strength of the cell wall in the plant. The most common and easiest to ferment food, cabbage, has a thick cell wall and can keep for six months or over in the fridge once fermented and will actually continue to slowly ferment over time, adding to the depth of flavour.

Foods with a weaker cell structure, such as cucumber ‘pickles’ will last around three months. As with ferments going ‘bad’, you will know when their time is up.
Recipes
**Whey and Cream Cheese Recipe**

**YOU NEED:**
- One litre container of full fat organic PLAIN yogurt
- Cheesecloth or thin dish towel like Chux
- Medium bowl
- String or rubber bands

**YOU NEED TO:**
- Lay your cheesecloth over a bowl and pour the yogurt into cheesecloth or thin towel. You don’t need to use the whole lot if it is just for yourself. Simply halve the recipe.
- Pull the ends of the cheesecloth or Chux up and secure with string or a rubber band.
- You can tie the cloth to the handle of a spoon balanced over a bowl between two containers or tie to a cupboard door handle. As long as it can drip into a bowl. Leave overnight to drip or for 12 hours. The liquid is the whey. Easy.
- Whey will keep in a glass jar for up to six months in the fridge. What you are left with is cream cheese. Put it in a container and then into the fridge and use as you would cream cheese.
- Use the whey for sauerkraut, fermented veggies or pickles. These recipes are found in this book.
Cream cheese from yoghurt

Whey
Cream cheese from yoghurt
Fermenting Sauerkraut

When curious people start their journey with fermentation, sauerkraut is often the first ‘experiment’ that they begin with and is certainly the first I would recommend. It’s super easy, the ingredients are readily accessible, and the result can be used at any time of day in many ways. Think BBQ sausages, roasts, hamburgers, veggie burgers, chicken fillets, in a salad, in sandwiches or wraps, on the top of curries to take the heat out or my favourite - nestled against hummus and falafels on top of a pile of grated carrot and sliced lettuce.

All you need to do is combine shredded cabbage with some salt or whey into a crock if you have one or glass jars for small batches. By massaging the cabbage you will release natural juices, when the cabbage is submerged under these and either whey or salt for weeks at a time, the cabbage slowly ferments into this crunchy, slightly sour and moresigh condiment or side that we know as sauerkraut.

YOU NEED:
- 2 quart sized mason jars or one 1 litre glass jar
- Fabric and an elastic band or string for tying around the top of the jar
- Large mixing bowl
- 1 medium head green cabbage or red cabbage
- 1 1/2 tablespoons sea salt or 2 tbs whey (whey recipe on page 15)

FLAVOURING:
- 1 tbs caraway seeds OR
- 1 tbs cumin seeds AND/OR
- 1 small birdseye chilli diced finely for a spicy sauerkraut

YOU NEED TO:
- Clean and rinse everything thoroughly.
- Slice the cabbage: Discard the wilting, limp outer leaves of the cabbage though retain two large whole leaves. Cut out the core of the cabbage and slice the remaining cabbage thinly.

Combine the cabbage and whey or salt in the mixing bowl and start to massage the cabbage with your hands. As the cabbage begins to wilt it should begin to release juices. You can also do this with a rubber mallet. This will take about 10 minutes.

Add any flavouring and mix thoroughly. Pack into the jars as tightly as possible and press down your whole cabbage leaves on top to hold it in and make a plug. Ideally the cabbage should be submerged in its own liquid. If it is not, mix 1 tsp salt with 2 tbs water and add to the jar and then press down firmly. Cover with the fabric and elastic band.

Place in the pantry and allow to ferment for 10 days before moving to the fridge to continue to ferment.
Kombucha

Kombucha is one of the best ways to add good bacteria to our gut and support a healthy digestive tract. Not only is it known in ancient China as the ‘immortal health elixir’, it tastes delicious and can be flavoured with a number of natural flavour combinations. There is a strong history of the benefits of drinking kombucha like preventing and fighting cancer, arthritis, and other degenerative diseases.

Made from sweetened tea that is fermented using a SCOBY (Symbiotic Colony of Bacteria and Yeast), kombucha is now gaining large popularity in western countries as a popular health drink. Although it’s nice to be able to go and buy a bottle from your local health food store. They can range upwards of $4-5 and are often over-carbonated.

Luckily, if you can get hold of a SCOBY, it’s really easy to make your own for less than 10c a glass and to alter with the flavours that you enjoy drinking, such as ginger, pomegranate, blueberry, raspberry or turmeric.

The fermentation process first eats the tannin in the tea and then the sugar in the sweetened tea, so the longer you ferment the less sugar there is in the tea. If you allow the tea to ferment to a fizzy, effervescent drink with a slightly tart flavour, the tea will have around 1/8 tsp of

YOU NEED:

A spotless 2 litre glass jar or ceramic vessel
Wooden spoon
*Make sure not to use dishwashing liquid as it can ruin your brew
4 organic black tea bags or 5 tsp black tea
1/2 cup of organic sugar
8 cups of boiling water
SCOBY
1/2 cup starter culture (kombucha from a previous batch. You can use some store bought kombucha if you have a SCOBY but no culture)

Flavouring:
After your first ferment, instead of bottling you can add flavours such as pomegranate juice, ginger, turmeric, blueberries, raspberries or even chilli before putting the lid on. This is called a second ferment and adds delicious flavour to your kombucha.

YOU NEED TO:

Add boiling water, sugar and tea bags or loose tea to a saucepan or ceramic bowl and allow to steep for 20 minutes.

Strain if needed and pour into your glass or ceramic vessel. Allow to cool completely.

Add your starter culture and slip your SCOBY into the tea and then cover with fabric and the elastic band.

Place away from direct sunlight and allow to ferment for 7-14 days. Warm weather ferments the brew faster so it’s great to taste test as you go. I find my sweet spot is typically 12 days. A new SCOBY will grow on top each time you brew.

You can now bottle your kombucha and put it in the fridge.
Kombucha
The Makings Of Kombucha

Organic Black Tea

Raw Organic Sugar

S.C.O.B.Y.

Starter Culture - Kombucha from a previous batch
Dry Ginger-Aid

YOU NEED:
GINGER STARTER*

1 mason jar or jar with a lid
1 inch piece of ginger with skin on (about 1 1/2 tbs)
1 tbs organic raw sugar (gets eaten in the ferment process)
500ml (2 cups) water at room temperature

Note* you can use whey for this if you want to, simply omit the ginger starter.

SODA
1 cup thinly sliced peeled ginger
3/4 cup rice malt syrup (you can use half sugar for a stronger soda and the ferment will eat it.
2 lemons (zest and juice)
6 cups water
½ cup ginger Starter OR 1/2 cup whey

YOU NEED TO:

If you are using a ginger-starter: Place all ingredients for your ginger starter in a jar and leave overnight or for 12 hours. You are looking for a ‘fizz’ so if you open and it doesn’t sound effervescent then pop the lid back on. In colder climates the ‘fizz’ may take 4-5 days to get going.

Bring water, sugar (or rice malt syrup or a blend of both) & ginger to a boil in a saucepan. Turn to low and simmer for 8-10 minutes. Cool to room temperature and then add lemon juice and zest. Transfer to your jar. Add the ginger-starter or whey. Stir well.

Sit on the bench out of direct sunlight for 2-4 days or until effervescent when opened. Open and stir once or twice during the process. You can drink it now and it will have probiotic properties. Allow to sit on the bench to carbonate further for 2-3 days It will keep in the fridge for seven days. When it becomes vinegary (after a week) it still has a heap of probiotic properties, but isn’t so nice to the taste buds.
Fermented Daikon

YOU NEED:
A large bowl
A mason jar
1.5kg daikon
2 tbs sea-salt
4 tbs whey (or water if you are vegan)

YOU NEED TO:
Cut the woody stems off the daikon and grate the daikon either by hand or in your food processor with the grate blade in. Place in your bowl with salt and whey and either massage for five minutes or until the juice starts to be released from the daikon. You can beat gently with a mallet or pestle if you have one.

Place in an airtight jar making sure the daikon is completely under the brine (juice). Do not fill to the top as the gases may cause the jar to explode. Leave at room temperature for 3 days or 2 if it is warmer and then pop into the fridge, where you can leave for up to 2 months. Tastes better with each week left.
The Makings of Kimchi

- Chinese Cabbage - Wombok
- Radish
- Chilli
- Fish Sauce
- Spring Onion
- Ricce Malt Syrup
- Salt
Kimchi

YOU NEED:

1 tbs plus 1/4 tsp sea salt
1/2 a carrot, cut into strips like french fries
2 cups water
2 heads Chinese (Napa) cabbage, cut into 2-inch squares
3 spring onions, cut into 2-inch lengths, then slivered
1 tsp minced fresh ginger
1 tsp of minced garlic
1 tbs fish sauce or anchovy fish sauce (available in Korean specialty stores). This can be missed out if you would like a vegetarian Kimchi.
1-2 long red chilli sliced into strips
1/2 cup sliced radish (about 4)
1/2 teaspoon rice malt syrup

YOU NEED TO:

Wash your hands and all of the utensils and containers used before beginning, though not with dishwashing liquid, simply use boiling water.
Dissolve the 1 tbs salt in the water. Put the cabbage into a large bowl, a crock, or a nonreactive pot like a ceramic mixing bowl, and pour the brine (salt water) over it. Weigh the cabbage down with a plate. Let the cabbage stand for 12 hours.
Drain the cabbage, reserving the brine. Mix the cabbage with the remaining ingredients, including the 1/4 teaspoon salt.
Pack the mixture into 2 500ml jar (or 1 quart) jar. Pour enough of the reserved brine over the cabbage to cover it. Let the kimchi ferment in a cool place, for 3 to 6 days. Allow to ferment until the kimchi is as sour as you like.
Store the kimchi in the refrigerator, where it will keep for up to six months.
Love Your Guts...
About Alice Nicholls

“Alice Nicholls is The Healthy and Wealthy Specialist. A nutritionist with education underpinned in naturopathy & biomedical sciences. Because she believes that when women feel healthy and empowered the world will shift for the better, she creates digital products that support women with tools to change the world. Her eCourses, books and programs are valuable, beautiful and effective. She is also a terrible dancer”.

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