# Fermented foods and condiments we can make to enjoy every day

Presented by Sue Visser 2020 series for the Gluten free Blood type Eating Guide for vegetarians and vegans. Health researcher, author, product developer <u>www.naturefresh.co.za</u> <u>sue@naturefresh.co.za</u>



Yoghurt, sourdough bread and cheese are popular fermented foods. We add flavour to our meals with pickles and sauces without realising that they too, are classified as fermented foods. Probiotics are present in all foods that contain yeast or beneficial bacteria. Lactobacillus is in yoghurt (fermented milk) as well as sauerkraut (fermented cabbage). Fermenting bread dough with yeast reduces the gluten content, although it is still not gluten free. Kombucha is a fermented beverage rich in vitamins, nutrients and probiotics - and it is cheap to make.

### Simple Sauerkraut to make and enjoy as a probiotic and medicinal superfood

- yield: 1 litre sauerkraut
- Wilting time: 2-6 hours in the sun
- Waiting time 2-4 weeks depending on taste
- Suitability all types as the lectins that disagree with type A are destroyed.

A tablespoon a day can be added to food or juices to improve digestion, help assimilate micronutrients, produce antioxidants, heal the gut, boost immunity, relieve heartburn. (See the listed health advantages below.)

### Ingredients:

- 1kg (about 2 litres) of shredded cabbage
- 15ml natural seaalt or Himalayan salt
- Optional: 60ml Maas (African fermented milk or Keffir or some AB yoghurt)
- Optional: the contents of 2-6 probiotic capsules to boost the culture



- Shred the cabbage. Measure out 2 litres of it slightly piled up.
- Place into a large bowl with the salt, amasi and probiotic culture if you want to include it as well. Mix it all in and leave the cabbage to wilt for a few hours in the sun or in a warm room.
- When liquid begins to form and the cabbage is reduced in volume, compress it into a 1 litre sealable container like a plastic yoghurt tub.
- Close the lid and press down firmly in the centre to form a vacuum. If oxygen is present, it goes mouldy.
- Place the sealed tub into a plastic bag, twist and tie it closed in case the sauerkraut leaks over. Leave to stand at room temperature for 2 weeks. It can take longer in winter to achieve the correct taste and texture. It becomes more acidic the longer you wait.
- Keep it in the fridge and eat at least 1 tablespoon per day

### Creative ways to enjoy sauerkraut every day

Serve it as a side dish, especially with mashed potatoes or hard boiled eggs. Mix sauerkraut with yoghurt or cream for a milder taste. Mix it with lentil sprouts – they suit all blood types. Add a few spoons of sauerkraut to the juices you make in the blender, particularly to mixtures of very sweet grapes or apple to make it tangy. Add sauerkraut to the blender when making vegetable bases for cold soups with onions, Himalayan salt, chilli, celery and garlic. These can be added to mashed avocado or tomato paste.

### Sauerkraut is a cost saving super food with medicinal benefits

- Sauerkraut produces a unique bacterial strain called Lactobacilli plantarum good for vegans
- Immune boosting: increases antibodies against pathogens including harmful strains of E. Coli and salmonella (food poisoning) as well as other germs.
- It keeps the yeast families, especially the Candida albicans strains under control and balances the acid/alkali levels within the small and large intestines. It creates the perfect growth medium for all manner of other food-based probiotics to flourish as well and protects their passage through the stomach.
- As a digestive aid, sauerkraut converts lactose from milk into lactic acid. Lactic acid is essential to stop the growth of harmful bacteria, yeasts and moulds connected to: cancer, chronic fatigue syndrome and Candidiasis. The juice can be rubbed onto dark spots on the skin to help lighten them. Add a few teaspoons of this salt and lactic acid solution to intimate rinsing water or sits baths for treating candidiasis topically.
- Sauerkraut breaks down phytic acid (hard cellulose wholegrain husks). Sauerkraut destroys harmful trypsininhibitors (present in raw soya and sweet potato). Trypsin is an enzyme from the pancreas that controls cell division (cancer).
- Sauerkraut helps to break down protein and assimilate amino acids. Valuable pancreatic enzymes are produced and the extra acidity helps compensate for low stomach acid intensity in people affected by infections of food allergies. It supports the health of the colon, cures tummy upsets, gas, bloating and prevents constipation. Eating 1 tablespoon of sauerkraut (best with with gherkins), relieves heartburn.
- During its digestion, sauerkraut helps to assimilate omega 3-fatty acids and GTF chrome (essential to control blood sugar) vitamin B6, B2, folate and other B vitamins.
- Helps to produce ntioxidants: Vitamin C, glutathionine (from glutamate), superoxide dismustase.
- Key enzymes to fight and prevent many forms of cancer especially: prostate, breast, liver, lungs and colon.

## Kimchi is a hot spicy pickle that is so easy and cheap to make

Kimchi is a fiery, spicy almost pungent combination of shredded vegetables combined with salted fish (optional - I leave it out and add some miso). Kimchi is very easy to make and surprisingly moreish, especially on a slice of toast with home-made cottage cheese. Kimchi contains lactic acid based bacteria similar to sauerkraut. A typical mixture would include shredded Chinese cabbage (or use normal cabbage) as the main ingredient with sliced up, carrots, garlic, ginger, onion and for the brave - chilli peppers! You can also include sliced yellow, red and green peppers, turnips or leeks. Experiment with other slivers of vegetables to perfect your own version of Kimchi. This recipe makes a milder, less overpowering vegan kimchi. Watch out for garlic, it becomes invasive and overpowering - due to the effect of hydrogen sulphide, a fascinating chemical. (See this link to learn more about fermented garlic.)



#### How to make Asian kimchi. The method of pickling the shredded mixture is the same as for sauerkraut

Sprinkle1 teaspoon of salt over 1 litre of chopped vegetables and let it "weep" for a few hours in the sun. This softens them and you can compress the mixture into a jar so that it seals up and is airtight. Leave containers to ferment for 1 - 2 weeks. After 7 days it will go fffff-whoosh when you open it. Kimchi tastes sour, yet pungent and the vegetables become soft and juicy. Let it ferment for the perfect taste then keep it refrigerated because after a long sojourn it may go off. Kimchi is very popular in Central Asian countries where it is made in huge vats and sold at food markets. (But the real thing is very stinky, fishy and garlicky!) Enjoy kimchi as a pickle, side dish or use as a topping for the okonomiyaki, the Japanese layered pancake. Here is a <u>gluten free recipe for okonomiyaki</u>.



#### Make your own Tabasco sauce and other fermented chilli sauces

We can go ahead and make some chilli pickle straight away by chopping up a pile of chillies and mixing them with salt. Place them in a glass jar, screw on the lid and leave it out in the sun or in a warm place for a few days until they soften – but don't go mouldy. Now add a little vinegar and olive oil to taste and process them into a paste with a stick blender – I do this inside the jar. For more fermentation, you can add leftover juice from your kimchi or sauerkraut instead of vinegar. Experimentation is the key and even kimchi can be liquefied into a very tasty sauce. Keep your fiery treasures in the refrigerator to prevent contamination.

#### Getting to know your chillies. Heating up or cooking them intensifies the burn, butter and coconut oil soothes it.



Left: Habanero, the hottest chiili, rated above 10. Keep away from small children, they are dangerous. Never add to a dish (or sauce) - it ruins it for most people. Bird's eye and Cayenne chillies are hot enough and cooking them increases the sting. Jalapeno chillies are milder.

Tabasco sauce and other fiery condiments that originated in Louisiana during the 19th century are based on Bird's eye chillies that are mashed and fermented in brine. The process can be as complicated and pedantic as the recipes you find on the internet. Anaerobic fermentation, the production of lactic acid means that oxygen must be shut out. Special fermentation jars with air locks that enable carbon dioxide to escape take the process to completion, ensuring the exclusion of oxygen. If oxygen is present, your pickle will go mouldy – covered in black fur! Adding vinegar to a jar of slightly fermented chillies will stop that from happening.







#### Berbere from Ethiopia and Hugh's easy chilli wine

Berbere is an Ethiopian spice blend. An easy way to enjoy it is to make some dhal out of tomato paste and ½ a can of drained chick peas (O1) or butter or haricot beans. Add a hot spicy mixture of ground up and roasted chilli powder, smoked paprika, ginger, cardamom, coriander, turmeric and black pepper. Mix it with olive oil and serve with <u>injera</u>, <u>a teff pancake</u>. Berbere can be left to ferment in a sealed jar for a few days but pour a little vinegar or red wine on top. Afterwards, keep it in the fridge. Our friend Hugh's unusual chilli wine is made by stuffing whole chillies into a bottle of red wine. Close it up and let the brew develop for a few weeks. Use this for cooking refried beans or casseroles or use it at the table for an unusual zing. Chop up the chillies for a speedier result and add some salt, peppercorns, bay leaf and so on. Afterwards, eat the chilli residue as a fiery salsa or top up with more wine. Try a few variations with Sherry or white wine or olive oil.

### Raw salted lemon pickle has a unique flavour and is good for the liver

Traditional recipes pickle a whole lemon and it takes months before they are soft enough to eat. It is quicker to slice up a few lemons into thin slivers, sprinkle them with salt and allow the mixture to sweat in the sun for a day or two in a covered glass dish. Then pack it into a jar, keeping it closed for a few days until the white parts become saturated and clear. It can now be eaten but keep it in the refrigerator. Enjoy the lemon pickle with just about any meal. It goes well with spinach, dhal, fish, curries and cheese. It is great in a sandwich and with snacks or even in a smoothie with banana and juice or yoghurt. Lemon skin is very good for bile stimulation and will thus help with the alkalinity of the small intestine. It is good with greasy food and it sweeps the palate. According to some naturopaths, a tablespoon of lemon pickle a day helps with liver problems, arthritis and skin disorders.



### Olives are also fermented foods, pickled in brine or mashed into a paste

Often overlooked in our stampede for lactobacillus and probiotic supplements that contain them are olives. A jar of tasty olives is an abundant source of Lactobacillus plantarum and Lactobacillus pentosus. Green olives are the unripe version of all species of olives and they need to be processed in an alkaline medium before entering the brine tank that releases the beneficial bacteria. The ripe black olives have a less aggressive taste and are easier to soften and ferment. However, olives are not recommended for blood type A2 and O2. Some olives are salted and left to dry (and ferment naturally) in the sun. The soft black flesh can be mashed up and allowed to ferment a bit more to enhance the flavour and it will become sour after a few days if left in an airtight container in the sun.



Olives are not inclined to mouldiness due to the Phenolic and oleosidic compounds and other antimicrobial components they contain. This also makes them difficult to ferment because they can also destroy the lactobacillus strains. Olive leaves especially, will halt fermentation and need to be removed from the brine tanks. (Olive leaves contain a host of anti-microbial compounds, as we know and have been used to fight off flu as well as malaria.) The saltiness, temperature and pH are tricky factors, making olive processing difficult for the average DIY enthusiast.

#### Fermented potato - a new take on taties

Fermenting potatoes in brine for a few hours (or even days) before they are cooked is nothing new. According to kitchen science, health promoting lactic acid bacteria break down the superficial starches and sugars and consume them. This decreases acrylamides by 84%, meaning that these obnoxious carbohydrates won't ruin your rosti, French fries or roasted potato wedges. The acquired probiotics help to neutralize anti-nutrients, including pesticides and make the enzymes, vitamins and minerals more bioavailable. Grated fermented potatoes have a delicate tangy taste after a longer soak in the brine and can be used as a side dish for an unusual Chinese breakfast. They are served with fermented kelp, other types of pickles, clear soup, a steamed white bun (full of gluten) and a hard-boiled egg.



More starch can be released by grating or shredding potato into fine strips. Red potatoes, yams and orange or red skinned sweet potatoes can all give up more of their starches. This gives one more time in the kitchen when making quick potato dishes – that won't burn so easily! You can process them in bulk, once a week. Peel them, slice, dice, shred or cut the taties into wedges and soak them in boiling hot water with a good pinch of salt. The next day, give them a rinse, add more water and salt. Close up the containers and keep them in the fridge. Use within a week.

### Fermented Soy Products: Soy sauce, Miso, Tamari sauce, fermented tofu, Tempe and Natto

Fermented soy products are rich in probiotics, amino acids and enzymes. Chinese soy sauce is made from fermented soy beans and usually contains wheat. These products have umami (the savoury taste) due to the presence of natural MSG (a salt of the amino acid glutamine) that is released during the fermentation process. This natural flavouring compensates for a salt craving and helps to reduce our sodium intake. In Japan, a fermented soy sauce called tamari is a by-product of miso.



Miso is a cooked up mash of fermented soy beans, combined with a mould called koji (Aspergillus Oryzae) and salt. During the fermentation process, the black tamari sauce oozes out of it. Rhizopus Oligosporus is a fungus that is added to cooked soybeans and other legumes to produce Tempe. This fungus is an antibiotic in its own right and even kills pathogenic bacteria like the dreaded staphylococcus aureus. It is heat-resistant and can withstand cooking plus a wide range of pH levels. These tasty medicinal bean patties are also a rich source of protein and along with the antibiotic are a host of probiotics!



Natto was traditionally made by placing cooked soybeans in rice straw, which naturally contains Bacillus Subtilis, (a microbial activating agent) and leaving them to ferment. The bacteria give the beans a stringy, slimy texture, a pungent odour and a unique, acquired flavour. They support a thriving colony of healthy gut flora and provide vitamin K2 that prevents hardened arteries and weakening bones (osteoporosis). It contains nattokinase, a heart-friendly enzyme that breaks down fibrin and prevents blood clots.

### Kelp and other seaweeds pack their punch and can also be fermented

150 micrograms (mcg) of iodine daily is usually recommended as enough. A tablespoon of kelp provides five times more iodine. Consuming too much iodine could lead to either hypo or hyperthyroidism, but most of us are critically iodine deficient, according to Dr Brownstein, the iodine expert and that is why ladies are so prone to breast cancer and thyroid issues. If you live at the coast or are able to buy dried kelp, you can have access to unlimited iodine plus a wealth of magnesium, calcium and iron, as well as vitamins, antioxidants, phytonutrients, amino acids, omega-3 fats and fibre.



Chinese, Korean and Japanese folk ferment shredded kelp and eat it with other pickled vegetables every day. No wonder they don't need so many supplements! I made this kelp pickle after visiting Central Asia and was missing it. I soaked some fresh, clean kelp leaves in water and then shredded them into strips. I boiled it to remove any pathogenic bacteria (living in Cape Town we don't take chances) and rinsed it. After storing it in a jar of brine for a week, I added some chopped onion and a hint of chilli. It can be served with tamari sauce, rice vinegar and a splash of sesame oil. Try it if you are feeling adventurous. Otherwise enjoy nibbling nori sheets, freely available from the Chinese market. They can be roasted in the oven to make crunchy seaweed crisps. But fermentation is going to deliver a lot more of the latent magic that lurks within these marine vegetables.

### Make alcohol-free Kombucha with a SCOBY culture, fruit, tea and sugar

A popular trend with foodies is to make their own brews - artisanal beer and Kombucha especially. Beer is a traditionally fermented beverage as we know. But for a less yeasty crispy, tangy taste minus the alcohol, we can make our own Kombucha. It is also a pleasant sugar-reduced alternative to fizzy colas and canned sugary drinks, laden with calories. Rather get hooked on Kombucha. You will need a SCOBY (symbiotic colony of bacteria and yeast). It is a big spongy disk of slime that converts a few litres of cooled and sweetened tea into a delicious tasting fruity drink. The person who gives you a SCOBY will provide plenty of advice about how to do a second fermentation to add the fizz, the pop and the fruit.

There are many recipes on the internet but it will be a process of trial and error, depending on room temperature, ingredients and so on, to perfect to Kombucha to your personal liking.



Adding strips of pineapple skin or raisins to the brew will add more flavour and increase levels of yeast and bacteria, to speed up the fizz. As with Kombucha, one can transfer the first brew from the bucket into an airtight soda pop bottle. But keep it in the fridge because it will get really fizzy. Yeast brews are very rich in B vitamins, but especially the anti-oxidant mineral selenium.

### Pineapple beer and ginger beers are less complicated to make

Everybody knows that ginger beer is made with ginger, yeast and sugar. It is simple enough to mix together and allow the liquid to stand in a container with a loose-fitting lid for a day or two. If you tighten it, the carbon dioxide cannot escape and a plastic bottle will bloat up and explode into a fizzy torrent when you open it. You can add other fruit to the basic ginger beer and experiment with the yeast, sugar and water ratio. It ferments quickly in summer.

- Combine these ingredients in a 5 litre plastic bottle:
- 250ml sugar
- 50ml grated fresh ginger or 5ml powdered ginger
- 5ml dry yeast powder (omit yeast for pineapple beer, add all the skins)
- 2 litres warm water
- 50ml lemon juice or 5ml cream of tartar for a sharper taste
- Optional: add other fruit strips of peaches, apple, pineapple skin, raisins and so on
- Allow it to fizz up without the cap for a day or two then screw it on tightly for another few days
- Then sieve and bottle it in airtight containers in the fridge. (5ml sugar added makes it very fizzy.)



Now try a fruity, herby, green fermented health drink we call Jungle Juice. Food for healthy happy gut flora This electric blender method is used for extracting the maximum amount of nutrients, once the ingredients have fermented in probiotics and molasses for a few days. Take a 1 litre container, half fill it with water and add 5ml of <u>Probiotic – 15</u> or other probiotics and 10ml of molasses. Add a selection of kitchen offcuts during the week, as and when you cook. Lemons, apple cores and skins, kale, broccoli, celery offcuts, white stems from lettuce and spinach and so on. Also pick parsley, dandelion leaves, olive leaves, ivy leaves, mint and other fresh herbs you find. Chopped up pineapple leaves provide bromelain, an anti-inflammatory chemical. Use a pair of scissors to chop them into little bits. The pineapple peels still have a lot of fruit in them, plus natural yeast that adds to the pool of probiotics that multiply. Open up your used green tea bags or herb teas and tip in more <u>phytochemicals</u> at no extra cost.

Close the lid of the brewing container. It should not be airtight and any white filaments you see are a natural probiotic called actinomycetes that are aerobic bacteria. It won't be fizzy, like ginger beer. Place your mixture into a blender goblet and process it into a pulp. Sieve out the juice through a straining cloth. The fibre can be used for compost. Bottle the juice and drink 100 ml a day. Microbes grow by themselves so providing a larger selection will take care of establishing a healthy population of beneficial bacteria. This creates a synergistic effect: more from less because they interact with each other to enhance our health in many ways.

Corn and grain beer. Mageu - traditional South African fermented beverage made from maize, malt (and wheat)



Crude beer brewed from grains is a traditional drink in many countries around the world. It is muddy looking, has little or no alcohol, tastes sour and gritty and is very nutritious. We tasted corn beer in Souuth Americ and Ethiopia. In Africa, mageu is commercially made from mealies and malt. Wheat flour is added to inoculate the mixture with lactate-producing bacteria . It is left to ferment, loosely covered, in a warm area and sild supermarkets but test for its gluten content. All beers – either crude or refined have a gluten content, but some are low enough to tolerate occasionally. Grain beers are very rich in nutrients - B-group vitamins including thiamine, folic acid, riboflavin and nicotinic acid, and essential amino acids such as lysine. Ingredients such as malt and wheat (gluten) produce beer.

### Not all cheeses suit your blood type, so begin with the easiest all-rounders



Goat's milk cheese, a strong tasting creamy cheese, mozzarella, from bufffalo milk and feta cheese, in salty brine. If you are lactose intolerant, a sour well fermented cheese will have a reduced lactose content. For blood type O, farmer's cheese is also suitable – a type of natural cheddar cheese. <u>Casein intolernce</u> is a problem, especially for blood type A, so no fermentation can ghange that. There are different types of casein so buffalo or goat milk may provide an alternative to which they don't react. Some vegan cheeses may also contain casein - test them first.

Look for vegan "cheeses" or make some. There are vegan style cheeses on the market made out of soya, pea protein or nut milk. Some of them may contain casein, so read the labels. Fairview sells vegan cheese online. It contains: vegetable fat, potato starch, flavouring, stabiliser, water and annatto (plant based colouring). Another option is to try making your own out of chickpea flour. As an all-type alternative make yellow pea flour cheese. Mix the flour flour 1 : 1 with water plus 10% potato starch and 20% canola oil. Microwave for a few minutes or stir it in a pot on the stove until it gets creamy. Add seasoning: paprika, mustard, nutritionl yeast (ormarmite), salt and vinegar for a savoury taste. Nature's Choice makes a parmesan cheese substitute. Some of it can be added to the pea flour mixture instead. It will be a matter of taste. Spoon the cooked paste into a mould and let it set. Slices can be cut and placed into brine – feta style or air dried, wrapped in cheese cloth. Delicious fried in olive oil and smoked paprika.





In India, lassi is a popular drink made from 1 part yoghurt (try amasi or kefir) to 2 parts water. It is served either sweet or salty and is sometimes served with sprigs of mint and ice. It is refreshing and can be served with hot curries. You can use Amasi instead, with the liquid whey mixed in again, should you like a salty lassi. Using kefir or amasi blended up with cardamom and other spices will taste just as good. Try sweetening it with stevia instead of all that sugar. Coconut milk is also a super substitute as is kefir. Try fermenting the water-based Kefir granules. You need to find somebody who can supply you with the culture. They will teach you how to make a constant supply of kefir.

<u>Toddy is an alcoholic drink</u> made out of the fermented sap of the coconut palm. It is very potent! Toddy is popular wherever coconuts are grown and the distilled version is a knockout in places like India and the Seychelles.

### How to make and use Fermented Milk Products like yoghurt, amasi, ricotta and cheese

Appreciate the old-fashioned goodness of simple things - like milk that has curdled. Way back then, this was used to make cheese by dripping out the watery liquid and harvesting the solid residue. The clear liquid (called whey) can be added to soups and stews because it has the most calcium! In Africa, we call the fermented (curdled) milk "amasi" or "maas." Ideally this still happens to pure, organic unpasteurized milk when it is left to stand at room temperature for a day or two. The natural bacteria – the ones we call probiotics (lactobacillus) multiply. So instead of chucking the milk away, take it to the kitchen. Here is my guide to getting the most out of amasi, our locally fermented milk.



The added benefit of using full cream milk amasi (maas) comes at no extra cost so we get the extra conjugated linoleic acids for free. Known as CLA, this is a slimming supplement in its own right, so don't worry about a few extra fat-laden calories! Skinny fat-free foods are going out of fashion because there is too much evidence that we can't really thrive without certain natural fats. Butter and cream are here to stay! At any stage one can mix in some extra probiotics from supplements. The more strains the better , for restoring gut bacteria and boosting your immune system. Probiotics grow in the amasi, especially when you add a spoon or two of molasses to the culture.



Unfortunately our modern pasteurized milk is now so over processed it only goes bad after a suspiciously long time and does not smell or taste like amasi. It does not even produce the curds and whey – so loved by Little Miss Muffit in the nursery rhyme. In South Africa the closest we get to curds and whey is amasi, from the supermarket.

For a harder cheese: Fold over the sides of the cloth. Wrap it up in paper towel and then a dish towel or newspaper to soak up the water as it seeps out of the cheese. Keep a heavy weight, like a brick on top of it to for a few hours. The longer, the smaller and more solid it becomes. This produces a smaller lump of solid, creamy white cheese,

similar to the Indian pannier or Middle Eastern Labneh (rolled into balls) It is great with cooked spinach or curries. Keep the chunks of cheese in the discarded brine. (The same idea as Feta but this is soft and creamier.)



#### Make cheese balls - they call them labneh

We ate a lot of labneh in Oman and that is where I first discovered it. I know you are supposed to make labne from yoghurt. But try using amasi, it is much easier. One celeb recipe said to mix salt and Greek yoghurt and hang it up in a cloth. No, it did not work, so I presume not all Greek yoghurt is created equal - especially not when chemicals and emulsifiers are used. That is why one needs to find the "lumpiest" type of amasi. Use the cheese as a firm cottage cheese or try rolling pieces of it into little balls. Add some olive oil to the small plastic container you are going to keep them in and oil up your hands so the labne does not stick to your fingers. You can keep them floating in the brine, but it is best to place the balls in the container of olive oil and keep in the fridge for a day or so till they firm up. (They do.) Serve them with olives and home-made lemon pickle. Labneh is great to add to salads and snacks.



**Yoghurt** is also produced by the fermentation process, but some yoghurt or a yoghurt culture is introduced to it from the beginning. We can add probiotic supplements to yoghurt. Mix in the contents of a few of your capsules or crush up some tablets. Set them free! Although there is no lactose (milk sugar) present, some people still need to be wary of regular cheese, because of the casein content. For them, homemade cheese from yoghurt or Amasi may suit them, but needs to be put to the test.

<u>The Budwig diet</u> for treating cancer makes use of a mixture of cottage cheese and ground-up flax seeds to great effect. This combination of fatty acids when taken as part of the daily protocol actually changes cell membranes and reverses cancer. It is also helpful for repairing the myelin sheath of nerves. Add Marmite to cottage cheese ad flaxseed oil for a delicious spread. Also make smoothies with cottage cheese, fruit and flaxseed oil as part of this highly effective protocol.



### Quick and easy sourdough bread made from rye flour or the gluten free alternative for flatbread or loaves

Sourdough is made with yeast that comes out of the air. As we know, bread is made out of yeast and the dough rises when the yeast ferments and releases carbon dioxide. The traditional sourdough culture is derived from airborne yeast spores, patiently collected in a flour and water mixture that is then stored and used as the starter culture. But dried yeast is an easier option!The fermentation of the yeast makes starch more digestible, it reduces the gluten in wheat and rye and helps to release many of the b-vitamins and amino acids like tyrosine that we take for granted.

All you need is a warm sunny day to do most of the work and then a 10 minute blitz in the microwave - energy saving indeed and it guarantees a very light, airy loaf. The top crust can be grilled in a normal oven afterwards, but rather use it for making flatbreads, that don't need to rise so high. A combination of microwave and convection is good.

Reipe for sourdough rye bread, (alternative on right: pea bread) flatbread



First soak in a 2 litre plastic tub with lid clicked shut:

- 2 x 250 ml cups of finger- warm water
- 2 x 5 ml spoons of sugar
- 1 x 10 g packet of instant yeast granules

Let this rest in the kitchen or a warm place till the yeast begins to make a froth. Keeping the lid tightly closed helps to seal in the carbon dioxide thus released and this is what "pops" the lid.

Next we add the dry ingredients, mix them with a fork and close the lid again.

- 1 cup of ground up flaxseeds
- 2 cups of rye flour (Gluten free : 1 cup try pea flour + 1 cup mixed 1:1 tapioca or potato flour with rice flour)

Cover the mixed dough with a splash of oil and rub it around the edges to prevent the dough from drying out.

Leave the sealed container in the hot sun or a warm place for a few hours so it can double in size

Then add the following:

- 1/2 teaspoon of salt
- 1 -2 teaspoons of baking powder cheating, but the salt kills the yeast, so compensate!
- Optional: 1 2 teaspoons of caraway or cumin seeds

#### Mix this with a fork and tip it into the prepared loaf tin or dish. Or - keep this dough in the fridge for flatbreads.

Use a 1 litre glass terrine or tin. Line it with a sheet of oiled baking paper so the loaf can fall out eaily.

Wet your fingers and tap and rub the dough into the container, making sure the sides are pressed down then rub it with cooking oil and sprinkle on some caraway seeds.



Optional step for a perfect high-rise loaf:

- Place the dish inside a plastic bag and seal it shut with a rubber band to trap the carbon dioxide. The loaf will rise up to a proper "home baked" loaf after about an hour.
- It is then ready to be baked. Bake for ½ hour in the centre of a very hot oven. (Not energy efficient and the inside will probably be heavy and raw it is easier to prep in the microwave, to guarantee lightness. Cook on full for about 10 12 minutes. Remove and tip out the bread onto a wire grid. It will be wet and steamy but after a few minutes it will firm up. Now place the loaf into hot oven or grill) to brown the crust.
- When sliced, it should not be gooey inside. (It may need a few more minutes in the microwave if it is like putty in the centre.) The loaf firms up when kept in the refrigerator and can then it can be thinly sliced.



**Pizzas and flatbreads** can get very hard and leathery with sourdough, so add the baking powder! Work with rice flour on the table top and in your hands and pinch out a piece of dough. Then flatten it on the table and roll it out into a thin disc. Keep adding the rice flour for that authentic effect. The thin rounds of dough can be rolled between sheets of plastic for paper thin pizzas. For pita bread, make a smaller, thicker disc. If microwaved for 1 minute on a saucer, they keep well in the fridge and can be popped into the toaster to make them crisp and brown whenever needed.

For a less soggy pizza, you can spray the base with olive or coconut oil and pre-bake it for a few minutes before adding the toppings. (Or microwave the disc on baking paper for 1 - 2 minutes. Flammkuchen can be made from the same dough. It is a large rectangular German flatbread similar to pizza with sour cream, onions and bacon (Quorn rashers). Sprinkle with chopped chives, basil and other herbs - a nice break from the usual cheese and tomato.





Caucasian style pickles are easy to make and can be enjoyed with many meals



A typical meal from Georgia or Armenia. The family gathers around a selection of pickled pesto sauces, called phkali. They are made from cooked vegetables pounded or processed in a blender with coriander, garlic, olive oil, spices, vinegar, chillies and so on. They are served with round freshly pan fried cakes made from maize meal, so are gluten free. The meal can include soup and cheese.

In this mixed platter (Called Gobi) you can see Bulgarian red pepper paste, beetroot mousse, leek mousse, carrot mousse, as well as cheeses, pickles and corn bread.

To make a delicious base at home, it is easiest to buy Pesto Princess Chermoula pesto – it has similar ingredients to a typical Caucasian mixture, despite it being Moroccan. Adding some of this to cooked vegetables like pumpkin, carrots or beetroot and blending it with a stick blender and some olive oil makes an excellent phkali. Make your pumpkin pesto with tomato puree, pumpkin seeds, walnuts, oil, lemon, coriander, mint, onions and garlic plus spices such as fennel, coriander, black pepper and so on.





To make a jar of Caucasian style pickles, you can use the vinegar that remains in the jar of your gherkins or pickled onions. Slice up vegetables like turnips, carrots, sweet potato, celery stems, onions and other odds and ends and add them to the vinegar. If you find them too hard and chewy, boil them for a minute or two (or use the microwave) just to take 10 – 20% of the hardness away so they remain crispy. For the beetroot, make sure it is firmer than our usual beetroot salad. The basic walnut paste is the most popular. It is very similar to pesto sauce, using mainly coriander and mint as opposed to basil leaves and substitute the pine nuts with walnuts. They add garlic to everything, but this can be very overpowering! As a garnish, pomegranate pips are popular. Mealie meal patties: Mix mealie meal and boiling water, butter and salt into putty-like balls. flatten and frv on both sides.