

Alive and well

Lacto-fermented foods have long been used across many cultures to support and maintain digestive health, and a few simple changes to your diet can make all the difference. By Holly Davis.

It is probably not news to you that live natural yoghurt is more than just a delicious food. The 'live' refers to naturally occurring beneficial organisms (lactobacilli) that quietly aid our digestion in addition to producing yoghurt's familiar sour taste.



THE EXACT ORIGINS of yoghurt are unclear, but evidence suggests it has been around for more than 4,500 years. Raw milk naturally ferments or cultures at room temperature, so before the advent of refrigeration, dairy food was most likely to have been consumed in this state. Once milk has cultured, the beneficial organisms contained ward off harmful bacteria – you may have noticed that live natural yoghurt keeps longer than fresh, pasteurised milk.

The word yoghurt appears in Turkish texts written during the 11th century, describing its use by nomadic herders. It

good health – and look at me!’ Pride and the desire to make a difference were my greatest motivators.

The way I was eating was creating an excessively acidic environment in my body and it was definitely time to practise what I teach. Making radical dietary changes requires a determined effort, but I have to say it has been so very worthwhile. I am free of all those symptoms and there is eight kilos less of me – which, happily, is particularly apparent around the midriff.

What seems to have played the biggest role in the recovery of my health

as outlined by Dr Roy Fuller who is renowned for his research on the subject, is “A live microbial feed supplement, which beneficially affects the host by improving its intestinal microbial balance.” Put another way, a probiotic is simply something we ingest that increases the number of beneficial gut flora our gastrointestinal system contains.

All lacto-fermented foods that have not been pasteurised are sources of probiotic organisms. Yoghurts are probably the most widely recognised. Lactic acid produced by lactobacilli

“Bacteria are not germs, but the germinators – and fabric – of all life on earth... In declaring war on them we declared war on the underlying living structure of the planet – on all life-forms we can see – on ourselves” – Stephen Harrod Buhner *The Lost Language of Plants*

is said that when the French King Francis 1 was suffering severe and seemingly incurable diarrhoea, his Ottoman ally Suleiman the Magnificent sent the king his own doctor, who cured him by feeding him yoghurt. The long life spans of Bulgarian peasants has also long been attributed to their regular consumption of cultured dairy foods such as yoghurt and kefir, a creamy drink made of fermented milk.

A little over a year ago I had my own experience of the healing power of lacto-fermented foods. I was faced with many low-grade niggling health complaints. Nothing terribly serious, but all disquieting: on waking my feet hurt – enough to make me hobble, my knees got very sore after only a few minutes of being seated, my digestion was a bit slow, my skin was dry and showing signs of ageing – more than I felt it ought.

I was also quite regularly experiencing insomnia. I had gained quite a bit of weight around my midriff. My friends assured me this was to be expected at my age, or offered: “Oh, that’s just menopause.” One friend insisted I would never lose those excess kilos. I hated this notion, but it was not my greatest concern; what I couldn’t reconcile was experiencing these issues at all. ‘Here I am,’ I thought, someone who teaches others about

is what I added to my diet: live natural yoghurt and another wonderful lacto-fermented food – pickles.

Lacto-fermented foods were once produced by every traditional society around the globe. Preservation of the foods available was the primary purpose for lacto-fermenting ingredients, but products created were also recognised as important for the maintenance of good health. In most cultures, a small amount of lacto-fermented food was eaten and/or drunk with every meal, along with other nutrient-rich foods. In such cultures, everything people ate was a beneficial contribution to overall wellbeing.

Optimum nourishment is assured by the correct functioning of our digestive system. It is here that the food we ingest is converted to the energy and nutrients that our entire system requires. With this in mind, it should be obvious our digestive health is of primary importance to every bodily function. I am focusing on lacto-fermented foods because they can make a significant contribution to the maintenance and restoration of digestive health. Why is that? Lacto-fermented foods are ‘probiotic’.

Probiotic literally means ‘for life’, whereas antibiotic means the opposite. The clinical definition of a probiotic,

preserves the ingredients and increases their digestibility. This aids digestion and the absorption of other nutrients. People with an intolerance to lactose often find live yoghurt does not cause them problems as the lactose (milk sugar) is all but consumed by the active culture.

Plain, live yoghurt is a good addition to the diet of those who tolerate cultured dairy foods well, but to get a wider range of beneficial bacteria and yeasts, it is ideal to regularly consume various vegetable pickles, fermented foods, drinks and kefir. Lacto-fermentation can increase the level of vitamins of vegetables tenfold. Useful digestive enzymes are also produced in this process. Half a cup of naturally fermented vegetables with every meal will also assist in the digestion of any fats that have been consumed.

Many factors have contributed to common health complaints today. Significantly, the process of refining food drastically altered what and how we ate, and reduced the nutritional value of these foods. We declared a war on all bacteria and our under-challenged immune systems have been diminished as a result. We also created, and have overused, the miraculous power of antibiotic drugs, which has had a negative impact on our digestive health by killing off the good



Make your own

To find our recipe for zucchini bread and butter pickles, visit www.taste.com.au,

bacteria with the bad. Medicine and creature comforts may have extended our lives, but we are suffering dramatic physical and mental ills as a consequence.

There has been a massive increase in the incidence and severity of allergic reactions and immune disorders. Antibiotic-resistant viruses, cancers, and arthritic conditions abound. Digestive disorders such as intestinal parasites, irritable bowel syndrome, ulcerative colitis, and coeliac disease affect ever-increasing numbers of individuals. Many cognitive and behavioural conditions can also be added to this list.

The healing professions recognise the vital importance of our digestive health. These days, an increasing number of medical practitioners will suggest a probiotic supplement could be a beneficial support to other recommendations they may offer. These

supplements are generally offered in liquid form or as powders and capsules. They come in various potencies and contain a few or many strains of live bacteria and yeasts.

Our intestines are home to vast numbers of organisms, and naturally contain both beneficial and antagonistic strains of bacteria and yeasts known as 'good' or 'bad' bugs, or collectively as our 'gut flora'. Over 400 strains of these organisms have so far been identified. Our gut flora performs numerous functions: they increase intestinal absorption of nutrients and work to keep it free of parasites, yeasts, moulds, other fungi, harmful bacteria, viruses and other pathogens. The probiotic content of the gastrointestinal tract is an integral part of our immune system. Beneficial gut flora also synthesises the B-complex vitamins. They help to regulate blood cholesterol levels and produce antibiotic compounds. A healthy gut will contain over a trillion of these organisms, weighing in at around one and a half kilos. There are 10 of these to each of the rest of the cells that make up our bodies.

We develop our intestinal flora over time, as we are all born with a sterile gut. As we pass through the birth canal we are exposed to the same bacteria and yeasts that live in the gut. Then colostrum, from first breast milk, provides a very rich source of nutrients and a sweet, sticky ground that lines the gut, promoting the growth of more friendly organisms.

In good health the ratio of these organisms is approximately 85 per cent good to 15 per cent bad. Some of the things that effect this balance include the use of antibiotics and some other prescription drugs, the quality of the air we breathe, and consuming and absorbing chlorine in the water we drink, bathe and swim in. Our diet has a major impact, too, with the consumption of excess sugars, chemical additives, highly refined foods and poor-quality fats and oils being perhaps the most significant contributors.

If the bad or 'pathogenic' bacteria predominate, a 'leaky gut' may ensue. This condition indicates that the bad bugs have destroyed the protective layer of beneficial organisms that line the gut wall, thus

What is fermentation?

Fermentation is the transformation of sugars into other substances through microbiological action.

There are two types of fermentation:

- Alcoholic fermentation – whereby yeasts transform sugars into alcohol.
- Lacto-fermentation – whereby the bacteria lactobacillus, of which there are many strains, transforms sugars into the natural preservative, lactic acid. This lactic acid protects the food from infiltration of putrefying bacteria that would cause the food to spoil.

Note: Lactose is milk sugar; lactobacillus is bacteria, not a dairy food.

My health and wellbeing goals

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causing it to become inflamed and more permeable than it should be. Once this occurs toxins that would normally be kept at bay, and particles of undigested food, may now enter the blood stream. The body reacts to these as invaders. This is a major cause of allergic reactions.

If you or your parents have taken long or frequent courses of antibiotic drugs or if you experience any of the following symptoms on a regular basis, you can consider that the balance may have tipped in favour of the bad guys and probiotics are likely to be beneficial to your system: excessive flatulence; bloating; constipation or diarrhoea or a combination of the two; allergies; thrush; athlete's foot and all complaints associated with a diagnosis of Candidiasis, an overgrowth of *Candida albicans* (a pathogenic yeast).

My preference is to use food to maintain health and, where possible, to heal disease. For severe and chronic conditions, there is no doubt that using supplements, including probiotic liquids, powders and capsules can expedite recovery. Ask your health practitioner to recommend the products best suited to your particular condition. There is a wide range of products including those that contain strains of organisms which may be used to target specific conditions such as anti-inflammatory diseases, those most supportive to the immune system, anti-diarrhoeal strains, and those that may suppress specific detrimental bacteria. Some probiotic bacteria are not damaged by bile acids in the stomach; those that could be damaged can be purchased in capsules that have been 'enteric' coated to ensure their passage intact to the small or large intestine, where they can go to work.

When I undertook to clean up my diet and correct the imbalance in my system I did a number of things. Primarily, I followed Donna Gates' Body Ecology Diet (www.bodyecology.diet.com). This is not so much a 'diet' as a radical alteration in lifestyle. The goal was to restore optimum gut function by starving pathogenic bacteria of the sugars they require for growth, combining foods for their ease of digestion, and to feed the gut plenty of nutrient-rich and probiotic foods. By redressing the balance of gut flora, a more alkaline condition prevails.

Accordingly, I stopped eating highly refined foods such as rice, pasta, and breads, and eliminated most grains and sweet fruits for the first three months. This sounds radical, but I was surprised how much I enjoyed the foods I ate and how satisfied I felt. I drank lacto-fermented drinks, took probiotic supplements and ate plenty of lacto-fermented foods. Amazingly, within a couple of weeks my sugar cravings disappeared. Meals were colourful and delicious and consisted of 80 per cent vegetables, plus 20 per cent protein from fish and meat or carbohydrate from starchy vegetables or grains. Nuts and seeds were eaten regularly; coconut oil, ghee and extra virgin olive oil were the predominate fats. I also walked every day for up to an hour.

By week nine I lost all the excess weight I'd been complaining of, my feet and knees had recovered, my skin was improving and I felt more relaxed and vibrant. Twelve months on I have not regained the weight and feel continuously improved. I have relaxed some of the principles, but having had such a powerful experience of their benefits, a range of lacto-fermented foods will forever occupy a good section of my fridge. ■

Food culture

Here is a sample of just a few of the world's probiotic offerings. When researching recipes be sure to look for the lacto-fermented versions.

- **Sauerkraut:** an Eastern-European dish made from cabbage.
- **Yoghurt and some cheeses**
- **Cider:** European in origin; made from apples.
- **Tamari:** a wheat-free Japanese soy sauce.
- **Kvass:** an Eastern-European drink made from rye bread.
- **Miso:** a Japanese food made from grain and soybeans.
- **Poi:** a Hawaiian food made from taro.
- **Kimchi:** a Korean dish made from Chinese cabbage, turnip and chilli.
- **Fish sauce:** a South-East Asian condiment made from fish.
- **Kombucha:** a Japanese drink made from seaweed.
- **Sourdough bread**
- **Tempeh:** an Indonesian food made from whole soybeans.
- **Kefir*:** a Turkish dairy drink similar to yoghurt, but with many more cultures and containing beneficial yeasts. Kefir culture will also grow in the water from young coconuts – it is highly recommended as part of the Body Ecology Diet.

*Live kefir culture is best obtained from a grower, but dried kefir grains are available from health food stores.