

In a pickle

Until recently, *PICKLES* were much maligned by the masses, but as evidence of their probiotic potency grows, fermented foods are enjoying a *HEALTHY renaissance*. By Jody Scott. Photographed by Irving Penn.

Getting into a pickle has long been a metaphor for trouble. Getting pickled (usually after too much champagne) is an odd phrase because soaking a live human body in alcohol does little to preserve it. Naughty children were once referred to as “little pickles”. Dubious copies of paintings by old masters are given a “pickling” to make their wooden frames look antique. Then there’s the oft-repeated put-down by Alice, the salty-tongued daughter of US president Theodore Roosevelt: “He looks as if he’s been weaned on a pickle.” But the reputation of the pickle has probably been most damaged by those sad, lifeless, soggy, green discs found inside cheeseburgers and the artificially coloured pickled onions on supermarket shelves. Pasteurised, heat-treated pickles mass-produced in modern food factories are a pale imitation of the real, raw, living thing that can actually be seriously good for you.

Things are looking up for our sour friends though, as word spreads about the probiotic healing powers of pickles and other fermented foods. In hipster bars from London to Chicago, it’s cool to throw back pickle-brine shooters – called “picklebacks”, and snack on sauerkraut-stuffed olives (nothing like starting your evening with an immune-boosting inoculation of gut-friendly bacteria). Late last year saw the opening of the Pickle Shack in Brooklyn, New York, which serves bourbon-barrel-aged pickles and beer. In London, Bodo’s Schloss, an alpine-themed club frequented by Prince Harry, serves sausages and sauerkraut. Health maven Gwyneth Paltrow’s 2013 cookbook, *It’s All Good*, included recipes for pickled ginger, jalapeños and kimchi. But the definitive proof that pickles are back came when *Portlandia*, the cult show that satirises hipster culture like no other, dedicated

an entire episode to the revival. With the catchery: “We can pickle that!”, the main characters Bryce and Lisa attempt to pickle everything from a broken stiletto heel to crushed CD cases.

House-made sauerkraut, a much-maligned condiment that is in fact rich in B vitamins, vitamin C, probiotics and digestive enzymes, is appearing on menus at in-the-know places. Likewise, house-brewed kombucha, a fizzy, fermented, probiotic tea, is on offer at places like the Venice Ale House in Los Angeles, Greenhouse in Perth, the Staple Store in Melbourne, the Roadhouse cafe in Byron Bay and Ruby’s Diner in Sydney, to name just a few. Or you can now find it bottled in the refrigerated section of health food emporiums just about everywhere. Basically,

it’s brewed from a “scooby”, a rubbery clump of bacteria and yeast that grows in the liquid. If that doesn’t sound appetising you can seek out kvass, another bubbly but sour fermented beverage long brewed by eastern Europeans using stale bread or beetroot.

Sauerkraut’s spicy Korean cousin kimchi is popping up as a condiment on artfully arranged Kinfolk-style tables. Kimchi is an acquired taste but it received a big boost when US first lady Michelle Obama revealed she is a fan on Twitter in February last year. “Last week, we picked Napa cabbage in the garden,” she tweeted,

starting a Korean media frenzy.

Then there are kefir drinks and cultured dairy products such as kefir milk, cultured butter and cultured cream (which is heavenly served with berries). Kefir grains, which again are globule-like clumps of bacteria, can also be used to ferment coconut water instead of milk. A word of warning, though: these little grains need daily maintenance, so if you’re not good at keeping house plants alive then these little pets are probably not for you. ▶

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Unpasteurised apple cider vinegar (the bottle will have a cloud of bacteria called “the mother” floating inside) is also enjoying a renaissance, thanks to its reputation for being restorative.

Dubbed the new supers, fermented foods are real, raw and alive. That’s because they are literally teeming with gut-friendly lactobacilli, which are created during the fermentation process and help repopulate the digestive tract with healthy flora. Lacto-fermenting not only increases the nutritional value of the vegetables in the ferment, but also helps you better absorb the nutrients in other foods as it helps increase the efficiency of the digestive system.

These are just some reasons why a growing group of people are becoming positively crazy about all things fermented. At the Freestone Fermentation Festival in California last year, festival-goers ate cultured cream sundaes and dipped their feet in a cedar enzyme bath to feel the tingling effects of fermentation on their toes. Naturally, hipster central Portland has its own annual fermentation festival, where you can sip lacto-fermented sodas. Social media is enabling like-minded people to connect and source kombucha “mothers”, kefir grains and other starter cultures. And there are plenty of classes and workshops where you can learn what to do with them. Making sauerkraut is easy: you just shred the cabbage, add salt or whey, press it into an airtight jar and wait for the juices and sugars in the cabbage to ferment, making lactic acid.

Of course, fermented foods are nothing new. Most of our favourite foods are the products of fermentation, including sourdough bread, wine, cheese, yoghurt, miso, tempeh, cured meats, coffee and even chocolate.

Humans have been capturing bacterial cultures to preserve food for thousands of years, right up until the last century, when refrigerators were invented and industrialised food-preservation methods of heat treatment and pasteurisation were developed. Until then, fermenting was the original food storage system and flavour enhancer.

Anya Yarrington, a co-founder of Byron Bay-based sauerkraut company Peace, Love & Vegetables, remembers it this way, too. “When I was a kid growing up in Russia, we made it every summer to eat in the winter,” she says. “It was a big family get-together, where we pickled all the vegetables that we grew for the cold, rough winters ahead. Preserving food was a normal way of living; everyone did it, otherwise you wouldn’t have food for the winter.”

Yarrington says she started fermenting again about seven years ago to cure her candida condition. Then in 2011, she and her husband Adam launched the company and are now struggling to keep up with demand, selling about 2,300 bottles or 1.6 tonnes of sauerkraut, kimchi and coconut kefir a week in Australia. They plan to launch more fermented products soon.

US author and self-described “fermentation fetishist” Sandor Katz travels the world teaching fermentation workshops. Earlier this year Katz hosted classes in Australia, visiting Brisbane, Byron Bay, Sydney, Melbourne and Hobart. “There is a huge interest in Australia, a disproportionate interest in fermentation ... I have always had a huge volume of mail and book sales there,” says Katz, who is the author of *The Art of Fermentation*, *Wild Fermentation*

and *The Revolution Will Not be Microwaved* (all published by Chelsea Green). He says interest in fermented foods has also risen dramatically in the United States in recent years, and he has a theory as to why. “Since the middle of the 20th century people have been eager to not have to produce their own food,” Katz says. “Farmers’ markets all but disappeared in the second half of last century, but at the turn of the millennium, people realised a lot got lost with that ... centralised food production created huge problems not only in the environment but in our bodies.” He believes that’s why we are now seeing what he describes as “a resurgence of interest in being closer to the source of our food, closer to the production of our food and having a direct connection with the producers”.

US food writer Michael Pollan echoes this sentiment in the forward he wrote for Katz’s *The Art of Fermentation*. “To ferment your own food is to lodge an eloquent protest – of the senses – against the homogenisation of flavours and food experiences now rolling like a great, undifferentiated lawn across the globe,” Pollan

writes. “It is also a declaration of independence from an economy that would much prefer we were all passive consumers of its commodities, rather than creators of unique products expressive of ourselves and the places where we live. Because your sauerkraut or home-brew will be nothing like mine or anyone else’s.”

DIY motivations aside, the renewed interest in fermented food has also come about because science is discovering how critical good gut ecology is to our overall health. We now know that our bodies are home to trillions of living bacteria concentrated in our intestines and on the surface of our skin and tongues. For every human cell inside your body there are 10 microbes. In other words, the genetic material found in your DNA accounts for just 10 per cent of you. The rest is, well, bacteria.

So while scientists may have cracked the DNA code more than a decade ago with the Human Genome Project, the microbial community living within our bodies has been called the second genome, or the microbiome, and it also needs to be decoded and better understood.

Bacteria can be our friends or foes, and some are even deadly. But our war on dangerous bacteria and the overuse of antibiotics and anti-bacterial cleaning products during the past century has meant that while targeting foes we haven’t been treating our friends very well. Now it’s time to get reacquainted and figure out how we can all live harmoniously and work together.

The research is ongoing, but cultivating healthy bacteria is believed to be the key to stronger immunity, better digestion, weight loss, detoxification, longevity, better mood and brain function, and even cancer prevention. In 2002, Finnish researchers found that fermenting cabbage produces compounds known as isothiocyanates (found in cruciferous vegetables such as broccoli and brussels sprout), which were shown to prevent cancer growth, but so far only in test tubes and animals.

Conversely, allowing too much bad bacteria to flourish may make you susceptible to obesity, candida, inflammation, infection and other health problems.

Late last year, a study by Danish researchers analysing a group of participants found that people with fewer and less diverse intestinal bacteria were more obese than the rest of the study group, and had bigger populations of the kind of bacteria that can

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cause inflammation. The study concluded that the richer and more diverse our intestinal bacteria, the better our health.

Sally Joseph, a clinical nutritionist, health coach and author of *Eat Yourself Healthy In 28 Days*, says it's a delicate balance to maintain, and the population of good bugs in your gut can be dramatically reduced by a round of antibiotics, too much sugar or alcohol and even emotional stress.

She believes poor gut health is the trigger for many diseases. "Our gut is the keystone to our overall health, because our body is actually composed of more bacteria than cells, by a ratio of around 10 to one, forming a complex ecosystem," says Joseph, whose celebrity clients have included Miranda Kerr and seven-time world champion surfer Layne Beachley.

"Maintaining a healthy balance of intestinal flora is essential to our overall health, including healthy digestive function and serotonin production, as well as regulating healthy immune responses and controlling inflammation. I tell my patients: 'We are not just what we eat, but what we actually digest.'"

Joseph says you can improve your gut health by regularly eating more foods that naturally feed our intestinal flora, such as kimchi, fermented vegetables, kefir and yoghurt that contains quality live cultures. "These foods all help to feed your gut's intestinal flora colonies, but be aware that most commercial brands of yoghurt are not that effective for this because they are usually loaded with sugar, but still try to pass themselves off as a health food." For this reason, she recommends plain yoghurt rather than flavoured varieties and personally prefers sheep or goat's products to cow's dairy, as they are easier to digest.

She says supplementing with a quality probiotic is another effective way to maintain healthy gut flora colonies. But she emphasises the importance of choosing a quality brand and notes that many are heat-sensitive and require refrigeration, unless freeze-dried. "Capsulated probiotics are an easy and convenient way of introducing a large and varied range of probiotic cultures into our intestines, however, the right fermented foods eaten in small quantities regularly will also assist in feeding our gut flora. Just watch out for those that contain high levels of sugar, like some brands of kombucha tea."

Choose carefully, she adds, as not all fermented foods are created equal. "Wine is fermented, but this does not mean it's healthy for us and can also feed the growth of the naturally occurring fungus candida," she says. Some fermented foods such as sauerkraut can also be high in salt and vinegar, so are not recommended for those with high blood pressure.

For those who can, however, eating a little sauerkraut with a meal can also help you better digest the other foods you eat with it, particularly proteins, which is why fermented foods are popular with followers of caveman-style paleo diets.

Celebrity chef Pete Evans, who recently trained as a health coach and has rebranded himself as the Paleo Chef, follows a paleo diet free of wheat, gluten, refined sugar, dairy and grains. And he loves fermented foods. "My family and I eat fermented vegies with every meal as a condiment," he says. "We have about five different flavours in our fridge at the moment, including classic kimchi and sauerkraut,

and also a beetroot, cabbage, ginger, cherry and celery, a cucumber, kale, bush tomato, mint and coriander and a fermented tomato salsa, all of which are yummy with a huge range of dishes."

Evans says he began making his own cultured foods a couple of years ago and has recently launched a kit to help others make them too. "I initially made my own so that I could play around with ingredients to create unique flavours that would complement different dishes, but I soon discovered that the health benefits of these penetrating, probiotic potions were having a profound effect on my health as well as enlightening my tastebuds," he says. "So my passion for the art of fermenting food multiplied to the point where I joined forces with my good friend and fermenting legend Kitsa Yanniotis to create our simple-to-use home-culture kit."

Bondi-based Carla Oates, aka the Beauty Chef, ferments her own vegetables and makes coconut kefir and also includes fermented ingredients in her powdered beauty supplements and topical skin products to increase their potency.

"Good skin begins in the gut," Oates says. "It is about working from the gut outwards." Oates says new medical studies are showing that the bacteria on your skin can influence your immune system, making it even more important to use skincare that promotes good flora on the surface of the skin. "Like our guts, our skin is a vibrant ecosystem that needs to be nurtured and nourished for it to be truly healthy," she says. "Harsh chemicals and processed ingredients destroy these ecosystems."

Oates says people need to understand the difference between good bacteria and bad bacteria. "We have been brainwashed to think that all bacteria needs to be eradicated. And there are studies that correlate this anti-bacterial or cleanliness obsession with problems and allergies, as we are stripping our guts and skin of all the good bacteria as well [as bad], which are so vital for our wellbeing and skin

health. Fermentation is just another way of preparing food: if you do it correctly then there are no problems. You learn what to look out for, when it is culturing successfully and when it is not. It is absolutely genius, because it is both an art and a science."

If you are ready to cultivate some probiotic power, then don't forget to feed your healthy bacteria with some prebiotics – in the form of capsules or fibrous vegetables – that stimulate the growth of healthy bacteria in the digestive system.

"The gut can be a hostile environment," says Joseph, "in that many of us suffer from a condition known as dysbiosis, an imbalance between the good and bad bacteria within the gut, leading to an overgrowth of candida, a naturally occurring fungus that resides mainly within the intestine. Introducing probiotics into a hostile environment can sometimes prove futile, requiring high doses, so preparing the gut beforehand through detoxification and supplementing with a prebiotic will assist in the probiotic's ability to implant and replicate more successfully, giving you more bang for your buck, so to speak."

But take it slowly, advises Joseph, especially in the beginning. "Fermented foods contain powerful friendly bacteria, and if you eat too much too quickly they can cause a reaction known as 'die-off', where the elimination process of pathogens such as candida and bad bacteria can actually induce a flare-up in a pre-existing ailment," she says. "Go easy and work up slowly and monitor your body's response." Don't forget, it is possible to have too much of a good thing. ■

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