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Fermented Foods: Top 15 Fermented Foods & Their Benefits

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Published: October 15, 2018



Fermentation is a process that's used to produce some of our favorite foods and beverages — things like wine, beer, breads, cheese, chocolate, coffee and yogurt, for example. Throughout history, fermenting foods gave our ancestors the option of prolonging the freshness of produce and milk that was available to them during the different seasons. Today, you can make a large batch of fermented foods, such as sauerkraut or yogurt, to have ready to eat in your refrigerator that should last a relatively long time.

Why are fermented foods good for you? Eating fermented (or “cultured”) foods is the most convenient way to obtain a daily dose of beneficial **probiotic** bacteria. Some of the many ways that fermented foods support overall health include by improving digestion and cognitive function, boosting immunity, helping **treat irritable bowel disease**,

providing minerals that build bone density, helping fight allergies, and killing harmful yeast and microbes that cause issues like candida. (1, 2, 3)

What Are Fermented Foods? Top 10 Fermented Foods for Health

When a food is fermented, it means that it's left to sit and steep until the sugars and carbs that the food naturally contains interact with bacteria, yeast and microbes to change the chemical structure of the food. The fermentation of foods such as milk and vegetables is also a great way to preserve them for a longer period of time and make their nutrients more bioavailable (absorbable).

Here is a list of the 10 healthiest fermented foods to add to your diet:

1. Kefir

Kefir is a fermented milk product (made from cow, goat or sheep's milk) that tastes like a drinkable yogurt. **Kefir benefits** include providing high levels of vitamin B12, calcium, magnesium, vitamin K2, **biotin**, folate, enzymes and probiotics.

2. Kombucha

Kombucha is a fermented beverage made of **black tea** and sugar (from various sources like cane sugar, fruit or honey). It contains a colony of bacteria and yeast that is responsible for initiating the fermentation process once combined with sugar. Do fermented foods like kombucha contain alcohol? Kombucha has trace amounts of alcohol but too little to cause intoxication or even to be noticeable. Other fermented foods, such as yogurt or fermented veggies, typically do not have any alcohol.

3. Sauerkraut

Sauerkraut is one of the oldest traditional foods, with very long roots in German, Russian and Chinese cuisine, for example. Sauerkraut means “sour cabbage” in German, although the Germans weren’t actually the first to make sauerkraut (it’s believed the Chinese were). Made from fermented green or red cabbage, sauerkraut is high in dietary fiber, **vitamin A**, vitamin C, vitamin K and B vitamins. It’s also a great source of iron, copper, calcium, sodium, **manganese** and magnesium.

Is store-bought sauerkraut fermented? Not always, especially the canned/processed kind. Real, traditional, fermented sauerkraut needs to be refrigerated, is usually stored in glass jars and will say that it is fermented on the package/label.

4. Pickles

Didn’t think that pickles had probiotics? **Fermented pickles** contain a ton vitamins and minerals, plus antioxidants and gut-friendly probiotic bacteria.

Are store-bought pickles fermented? Not usually. Most store-bought pickles are made with vinegar and cucumbers, and although this makes the pickles taste sour, this doesn’t lead to natural fermentation. Fermented pickles should be made with cucumbers and brine (salt + water).

What is the best brand of pickles if you want probiotics? When choosing a jar of pickles, look for “lactic acid fermented pickles” made by a manufacturer that uses organic products and brine, refrigerates the pickles, and states that the pickles have been fermented. If you can find a local maker, such as at a farmers market, you’ll get some of the best probiotics for your health.

5. Miso

Miso is created by fermenting soybeans, **barley** or brown rice with koji, a type of fungus. It's a traditional Japanese ingredient in recipes including **miso soup**.

6. Tempeh

Another beneficial fermented food made with soybeans is tempeh, a product that is created by combining soybeans with a tempeh starter (which is a mix of live mold). When it sits for a day or two, it becomes a dense, cake-like product that contains both probiotics and a hefty dose of protein too. Tempeh is similar to tofu but not as spongy and more “grainy.”

7. Natto

Natto is a popular food in Japan consisting of fermented soybeans. It is sometimes even eaten for breakfast in Japan and commonly combined with soy sauce, karashi mustard and Japanese bunching onion. After fermentation it develops a strong smell, deep flavor and sticky, slimy texture that not everyone who is new to natto appreciates.

8. Kimchi

Kimchi is a traditional fermented Korean dish that is made from vegetables, including cabbage, plus spices like ginger, garlic and pepper, and other seasoning. It's often added to Korean recipes like rice bowls, ramen or bibimbap.

9. Raw Cheese

Raw milk cheeses are made with milk that hasn't been pasteurized. **Goat milk**, sheep milk and A2 cows soft cheeses are particularly high in probiotics, including *thermophilus*, *bifidus*, *bulgaricus* and *acidophilus*. In order to find real fermented/aged cheeses, read the ingredient label and look for cheese that has NOT been pasteurized. The label should indicate that the cheese is raw and has been aged for six months or more.

10. Yogurt

Is fermented milk the same as yogurt? Essentially, yes. Yogurt and kefir are unique dairy products because they are highly available and one of the top probiotic foods that many people eat regularly. **Probiotic yogurt** is now the most consumed fermented dairy product in the United States and many other industrialized nations too.

It's recommend when buying yogurt to look for three things: first, that it comes from goat or sheep milk if you have trouble digesting cow's milk; second, that it's made from the milk of animals that have been grass-fed; and third, that it's organic.

What about other foods like vinegar?

Is apple cider vinegar a fermented food? Is balsamic vinegar a fermented food? What about bread?

Apple cider vinegar that is raw and contains "the mother" is fermented and does contain some probiotics. It also contains certain types of acids like acetic acid, which supports the function of probiotics and prebiotics in your gut. However, most vinegars available in the supermarket do not contain probiotics.

You can add one tablespoon of apple cider vinegar to a drink twice a day. Before breakfast and lunch or breakfast and dinner, add one tablespoon of **apple cider vinegar** in your meal, and then start consuming more fermented vegetables like sauerkraut and kimchi or drinking **kvass** to really boost probiotic levels.

Certain breads, such as sourdough bread, are fermented, but they don't contain probiotics. Fermentation helps make nutrients found in the grains more available for absorption and reduces **antinutrient** content that may make digestion difficult.

How Fermentation Works

The definition of fermentation is “the chemical breakdown of a substance by bacteria, yeasts, or other microorganisms, typically involving effervescence and the giving off of heat.” The process of fermentation converts compounds, such as a carbohydrate, including vegetables and sugar, to carbon dioxide and alcohol to an organic acid. (4)

How is yogurt fermented, and how are fermented veggies made?

Yogurt is made with a starter culture that ferments lactose (milk sugar) and turns it into lactic acid, which is partially responsible for yogurt’s tangy flavor. Lactic acid decreases pH of milk, causes it to clot and thicken, and gives it a smooth texture. (5) After fermentation, yogurt contains the characteristic bacterial cultures called *Lactobacillus bulgaricus* and *Streptococcus thermophilus*. *Lactobacillus bulgaricus* and *Streptococcus thermophilus* are the only two cultures required by law to be present in yogurt. Kefir and yogurt are made in a similar way, but the two are a bit different because kefir is made at room temperature with continuous use of kefir grains, which contain a variety of bacteria and yeast. Kefir contains a larger range of bacteria, in addition to containing yeasts, and is more tart/sour than yogurt.

Most fermented vegetables are cultured via the process of lactic acid fermentation, which occurs when veggies are chopped and salted. Fermented veggies contain high acidity and low pH that usually make them shelf-safe and safe to consume for longer than fresh vegetables. (6) Many fermented vegetables are also made with additional ingredients like coriander, **garlic**, ginger and red pepper, which also offer various health benefits. The exact microbial counts found in fermented veggies depends on the nutrient status of the fresh produce used and varies with seasons, maturity stage, environmental humidity, temperature and the use of pesticides, among other factors.

Benefits of Fermented Foods

What are the benefits of eating fermented foods? The consumption of fermented, **probiotic foods** has many positive effects on the body. The microflora that live in fermented foods creates a protective lining in the intestines and shields it against pathogenic factors, such as salmonella and E.coli. Indeed, to get that healthy dose of bacteria, it's essential to consume top probiotic foods.

Fermented foods lead to an increase of antibodies and a stronger immune system; plus, they regulate the appetite and reduce sugar and refined carb cravings. In fact, **fermented vegetables can help treat candida gut**. Another benefit is that lacto-fermentation enhances the nutrient content of foods and makes the minerals in cultured foods more readily available. Bacteria in fermented foods also produce vitamins and enzymes that are beneficial for digestion/gut health.

A study published in the *Journal of Applied Microbiology* states, "Recent scientific investigation has supported the important role of probiotics as a part of a healthy diet for human as well as for animals and may be an avenue to provide a safe, cost effective, and 'natural' approach that adds a barrier against microbial infection." (7)

There's now even evidence that **fermented foods reduce social anxiety**. Recent research spearheaded by the University of Maryland School of Social Work found a link between social anxiety disorder and the gut health. A big part of our emotions seem to be influenced by the nerves in our gut (our enteric nervous system). It appears that microbiota influence the gut-brain communication, mood control and behaviors. In animal studies, depression has been found to be linked to the interplay of the brain and gut health, and people with chronic fatigue syndrome have also been found to benefit from probiotic consumption.

Below are benefits of eating some of the most common fermented foods:

- Yogurt — Yogurt intake has been found to be associated with better overall diet quality, healthier metabolic profiles and healthier blood pressure.
- Kombucha — After being fermented, kombucha becomes carbonated and contains vinegar, B vitamins, enzymes, probiotics and a high concentration of acid (acetic, gluconic and lactic). There are some of the **reasons to drink kombucha every day.**
- Sauerkraut — Studies suggest that sauerkraut has a variety of beneficial effects on human health; it can help boost digestive health, aid in circulation, fight inflammation, strengthen bones and reduce cholesterol levels. (8)
- Pickles — Pickles alone can help address the all-too-common **vitamin K deficiency**, as one small pickle contains 18 percent of your daily value of this fat-soluble vitamin, which plays an important role in bone and heart health.
- Kimchi — Kimchi is known to improve cardiovascular and digestive health and has high levels of antioxidants that may help reduce the risk of serious health conditions, such as cancer, diabetes, obesity and gastric ulcers. (9) A report published in *Bioactive Foods in Health Promotion* states, “Health functionality of kimchi, based upon our research and that of others, includes anticancer, antioxidative, antiobesity, anticonstipation, serum cholesterol and lipid-controlling, antidiabetic, and immune-boosting effects.” (10)
- Natto — It contains the extremely powerful probiotic *bacillus subtilis*, which has been proven to support the immune system and cardiovascular health. It also enhances the digestion of vitamin K2. In addition to these natto benefits, it contains a powerful anti-inflammatory enzyme called nattokinase that has been shown to potentially have cancer-fighting effects.

- Miso — Miso has anti-aging properties and can help to maintain healthy skin. It also boosts the immune system, may help lower the risk of certain types of cancer, improves bone health and promotes a healthy nervous system.
 - Tempeh — **Tempeh** contains high levels of vitamins B5, B6, B3 and B2. Eating it regularly may help reduce cholesterol, increase bone density, reduce menopausal symptoms, promote muscle recovery and has roughly the same protein content as meat.
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Fermented Foods and Probiotics

Probiotics are bacteria that line your digestive tract and have numerous important roles, including supporting your ability to absorb nutrients and fight infection. Your skin and digestive system alone host about 2,000 different types of bacteria. The probiotics, or “live microorganisms,” that we obtain from fermented foods are similar to the beneficial microorganisms found in the human gut. We can manipulate our intestinal **microbiomes** by eating the host-friendly bacteria found in foods like kimchi, yogurt, etc.

Probiotics benefits include:

- Helping treat digestive issues, such as IBS or IBD. Eating foods rich in good bacteria and using probiotic supplements may help provide protection from inflammatory bowel diseases, including ulcerative colitis and Crohn’s disease.
- Potentially helping treat neurological disorders and mental health problems. Probiotics may help alleviate symptoms of anxiety by reducing inflammation along this gut-brain connection.
- Boosting the immune system by destroying harmful bacteria in the gut.
- Helping with weight loss, increasing energy and boosting detoxification.
- Reducing inflammation and symptoms like joint pain.

- Fighting allergies and asthma.
- Potentially increasing the effectiveness of antibiotics and helping prevent the bacteria in your body from becoming resistant.
- Helping **lower blood pressure** by improving lipid profiles.
- Helping manage blood sugar, particularly when blood sugar levels are already elevated.

Probiotic foods are most beneficial when combined with **prebiotics**. Are fermented foods also prebiotics? Prebiotics are the food source meant to keep probiotics alive. A “synbiotic” is a supplement that contains both prebiotics and probiotics. The best synbiotics contain healthy plant starches and fiber. High-quality probiotic supplements have both prebiotics and other ingredients designed to support digestion and immunity. Examples of these ingredients are (preferably fermented) flaxseed, chia seed, cañihua seed, **astragalus**, ashwagandha, hemp seed, pumpkin seed, milk thistle, peas, ginger, mung bean and **turmeric**.

Fermented Foods for the Keto Diet

No matter what type of diet you follow, it's a good idea to consume probiotic foods regularly. If you're following the ketogenic diet, it's highly recommended that you regularly include fermented vegetables, such as sauerkraut and **kimchi**, in your meals. These provide probiotics along with essential vitamins and minerals, and they can supply salt, which is needed on the **keto diet** to balance water loss.

A small amount of full-fat (ideally raw) dairy products, such as unsweetened yogurt or kefir, may also be consumed on the keto diet. Just be sure to avoid any product that is sweetened with fruit, sugar, etc. Dairy products should be limited to only “now and then” due to containing natural sugars. Higher fat, aged cheeses have the least carbs and can be consumed in quantities of about 1/4 cup per day. Limit yogurt/kefir to about 1/2 cup per day or less.

You can also use apple cider vinegar in dressings, marinades, etc., or mixed with water.

Fermented Foods Throughout History: In Ayurveda, TCM and Traditional Medicine

Fermented vegetables, beverages and dairy products have a very history that dates back thousands of years. For example, sauerkraut is believed to have originated more than 2,000 years ago in China, where it was made to help preserve high yields of cabbage in order to save some for the non-growing season. Kimchi is a Korean delicacy that dates back to the seventh century, while miso has been a staple in Chinese and Japanese diets for approximately 2,500 years. Kefir has been consumed for well over 3,000 years; the term kefir was started in Russia and Turkey and means “feeling good.”

A healthy **Ayurvedic diet** includes fermented foods, such as yogurt, **amasai** and miso. Many different seasonal vegetables may be fermented to prolong how long they are edible, such as asparagus, beets, cabbage, carrots, cilantro, fennel root (anise), garlic, green beans, etc. Fermented foods are often combined with anti-inflammatory herbs and spices like turmeric, cumin, fennel, ginger, cardamom, coriander, cinnamon, clove, rock salt, mint, black pepper and oregano. Fermented foods are especially encouraged for Vata types, who can benefit from foods that have a natural sour and salty taste, rather than those that are bitter, pungent and astringent.

In **Traditional Chinese Medicine**, fermented foods are included in the diet to help prevent deficiencies, support the gut and vital organs, and improve detoxification. The stomach and spleen are the two main pathways that TCM practitioners believe are related to Qi (“vital energy”) deficiency, and both of these organs can suffer due to low nutrient intake, use of medications, stress and other factors. Fermented foods, like sauerkraut, kimchi, and other fermented/pickled vegetables and

fruits, are utilized to help restore the healthy bacterial colonies found within the gastrointestinal tract. (11) Soy sauce, black beans, radishes and other foods are also commonly fermented in China and used in TCM. These foods make it easier for the gut to allow nutrients to be absorbed during digestion and can build immune deficiencies.

How to Get Fermented Foods in Your Diet + How to Ferment Your Own Foods

If you're new to fermented foods, start by having about a half a cup per day and build up gradually from there. This gives your gut time to adjust to the presence of new bacteria. It's best to eat a variety of different fermented foods, since each one offers different beneficial bacteria

Where can you buy fermented foods? These days, you can find them at just about any supermarket. Yogurt is widely available, and other fermented foods like kefir, sauerkraut and kimchi are becoming easier to find. Look for fermented foods in health food stores, large supermarkets and at your local farmers market.

What foods can you ferment at home?

Here are basic instructions if you want to ferment your own vegetables (you can also refer to this [**homemade sauerkraut recipe**](#)):

- How do you make fermented vegetables at home? Fermenting veggies is relatively easy, and you only need a jar with some salt and water. Salt and water combined make brine, which aids in the fermentation process. Veggies you can ferment at home include cabbage, carrots, green beans, turnips, radishes and beetroots.
- Use a regular wide-mouth mason jar. Prepare the vegetables for fermenting by grating, shredding, chopping, slicing or leaving them whole.
- Once the vegetables have been prepared and placed in the chosen jar, cover them with brine and weigh them down so they don't float

up. Thoroughly sprinkle the salt onto the veggies and massage them a bit. Add any other ingredients, such as spices. If there's not enough liquid released, add more salted water (brine). There should be a little room at the top of the jar since bubbles will form during fermentation. Make sure the lid is on tightly while the veggies ferment.

- Most veggies need two to seven days to ferment. The longer you leave them to ferment, the stronger the taste will get. Once the vegetables are finished culturing, move them to cold storage.

Other fermented food recipes may require the use of kefir grains, whey, yeast or a starter culture, depending on the exact recipe and your personal taste (you can refer to the [Cultures for Health website](#) for specific recommendations).

Fermented Food Recipes:

Here are ideas for adding fermented foods to your diet:

- Add sauerkraut and pickles to your favorite **burger slider recipes**.
- Try adding yogurt or kefir to these **healthy smoothie recipes**.
- Make a salad dressing with apple cider vinegar, raw honey, olive oil and dijon mustard, and toss on one of these farm-to-table **salad recipes**. You can add cultured veggies like radish, sauerkraut, etc., to salads as well.
- Make a meatless dinner by subbing tempeh for meat in this **Buddha bowl recipe**.
- Try this simple **miso soup recipe with mushrooms**.
- Add kimchi to a veggie stir-fry or homemade ramen bowl.
- Sip on kombucha, combined with some seltzer if you'd like, instead of soda or other sweetened drinks.

Precautions

While fermented foods have lots of benefits to offer, consuming too much too quickly might cause digestive issues like bloating or diarrhea. Start slowly and experiment with different kinds to find your favorites. If you have a sensitive digestive system you may want to start off with a smaller amount, like several tablespoons of kefir or one probiotic capsule a day, and work your way up.

For the best quality, try to purchase fermented foods that are organic and contain “live and active cultures.” This is better than the label “made with active cultures.” After fermentation, some poor quality products may be heat-treated, which kills off both good and bad bacteria (extending shelf life). Ideally you want to find raw, organic and local products that do not contain lots of sugar or additives.

Final Thoughts on Fermented Foods

- When a food is fermented, it means that it's left to sit and steep until the sugars and carbs that the food naturally contains interact with bacteria, yeast and microbes to change the chemical structure of the food
- The top 10 fermented foods to include in your diet are kefir, kombucha, yogurt, aged/raw cheeses, sauerkraut, pickles, miso, tempeh, natto and kimchi. Other healthy foods that are fermented include apple cider vinegar, wine, sourdough bread and chocolate.
- Fermented foods naturally provide us with probiotics, beneficial bacteria that mostly live within our guts/digestive system.
- Benefits of fermented foods and probiotics include improving digestion/gut health, boosting immunity, helping treat GI issues like irritable bowel disease, providing minerals that build bone density, helping fight allergies, supporting heart and metabolic health, and killing harmful yeast and microbes that cause issues like candida.

Read Next: Top 15 Anti-Inflammatory Foods + Anti-Inflammatory Diet

From the sound of it, you might think leaky gut only affects the digestive system, but in reality it can affect more. Because Leaky Gut is so common, and such an enigma, I'm offering a free webinar on all things leaky gut. **[Click here to learn more about the webinar.](#)**

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