

3K – Kombucha – Kefir - Kvass

Kombucha or Kefir?

Kombucha can be an aid to digestion. In addition to the beneficial bacteria, it also contains some acids and enzymes to aid in the breaking down of food. Kombucha tea can contain caffeine, depending on the tea used.

Water kefir is more of a general probiotic beverage. While it does contain enzymes and acids, they don't seem to have quite as strong an effect as those in kombucha. However, water kefir contains a greater number of bacteria strains than those found in kombucha.

Both beverages are beneficial in aiding natural systems of the body, and both are great for hydration. Depending on your needs, consuming one or both is a matter of individual taste.

Kombucha

1 litre water

¼ cup sugar

4 teabags

1 scoby

¼ cup of inoculation (fermented kombucha)

Scoby: Symbiotic Culture Of Bacteria and Yeast.

Kombucha is High in Glucaric acid and Glucosamine, it aids the body in detoxing your body, reducing the pancreatic load and easing the toxicity of your liver. The glucosamines increase synovial hyaluronic acid production with aids in the preservation of cartilage structure and helps to prevent arthritic pain.

□ **Acetobacter:** This is an aerobic (requiring oxygen) bacteria strain that produces acetic acid and gluconic acid. It is always found in kombucha. Acetobacter strains also build the scoby mushroom. *Acetobacter xylinoides* and *acetobacter ketogenum* are two strains that you might find in kombucha

□ **Saccharomyces:** This includes a number of yeast strains that produce alcohol, and are the most common types of yeast found in kombucha. They can be aerobic or anaerobic (requiring an oxygen-free environment). They include *Saccharomyces*

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ludwigii, *Saccharomyces apiculatus*, *Schizosaccharomyces pombe*, *Zygosaccharomyces*, and *Saccharomyces cerevisiae*.

- **Brettanomyces:** Another type of yeast strain, either aerobic or anaerobic, that is commonly found in kombucha and that produces alcohol or acetic acid.
- **Lactobacillus:** A type of aerobic bacteria that are sometimes, but not always, found in kombucha. They produce lactic acid and slime.
- **Pediococcus:** These anaerobic bacteria produce lactic acid and slime. They are sometimes, but not always, found in kombucha.
- **Gluconacetobacter Kombuchae** is an anaerobic strain of bacteria that is unique to kombucha. It feeds on nitrogen that is found in tea, and produces acetic acid and gluconic acid as well as building the scoby mushroom.
- **Zygosaccharomyces Kombuchaensis** is a yeast strain that is unique to kombucha. It produces alcohol and carbonation as well as contributing to the mushroom body. Kombucha also contains a variety of other nutrients, particularly various acids and esters that give the drink its characteristic tang and fizz. Included in these components is gluconic acid, which is the primary difference between the makeup of kombucha and the makeup of apple cider vinegar!

The actual bacteria, sugar, and acid content of kombucha depends on many factors, including the culture you begin with, the type of tea used, the type of sugar used, the strength of the tea, the type of water, the length of time brewing, the temperature at which it is cultured, and more.

While different scobys may vary in their exact makeup, what is common to all kombuchas is gluconic acid, acetic acid, and fructose.

Herbal Teas. Herbal teas do not contain the necessary nutrients to nourish the scoby and should be used in combination with black tea (at least 25% black tea) to prevent problems for the batch and the scoby. While herbal tea alone will technically brew a batch of kombucha, it is much more difficult to control the pH level of the brew and the scoby will suffer nutritionally, both of which can result in an unsafe beverage. Beware of herbal teas containing oils! They should not be used. (Examples include peppermint, chamomile, ginger, etc.)

While it can be tempting to try to find ways not to use sugar in recipes, sugar is required for the fermentation process and cannot be bypassed or substituted. During fermentation, the scoby breaks down the sugar and transforms it into acids, vitamins, minerals, enzymes, and carbon dioxide (which accounts for the fizzy nature kombucha is known for). Do not be tempted to use less sugar than called for. Upsetting the ratios will disrupt the fermentation process and potentially result in a beverage that is unsafe to drink. Keep in mind that at the conclusion of the fermentation process, kombucha contains only 1 to 2 grams of sugar or less per cup. Compare that to apple juice which contains 28 grams of sugar per cup.

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The use of sugar

Honey. We do not recommend it for a number of reasons. Raw honey contains its own bacterial profile, and may disrupt the balance of yeast and bacteria in the scoby. Additionally, raw honey may include other organic material that might disturb the scoby or attract mold. Keep in mind that such disruption isn't always obvious and may result in an unsafe batch the first time or several batches later.

Coloring. The scoby should be primarily off-white in color or sometimes more tan. Blobs of brown or stringy brown particles clinging to the scoby are normal byproducts of the yeast. Do not use a scoby that has signs of mold (black, orange, green, or very white spots) or a scoby that has turned black (a sign the culture has died).

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Water & Coconut Kefir

1Tbs Kefir Grains per cup of water
1 cup water
1 Tbsp sugar

Water Kefir is a probiotic beverage made with water kefir grains or a powdered kefir starter culture. Water kefir grains can be used to culture sugar water, juice, or coconut water. A powdered kefir starter culture may also be used to culture coconut water or fruit juice.

Water kefir grains consist of bacteria and yeast existing in a symbiotic relationship. The term kefir grains describes the look of the culture only. Water kefir grains contain no actual "grains" such as wheat.

Kefir – especially coconut kefir contains many probiotic, bioactive compounds and as many as 30 strains of good bacteria that help fight against bacteria, carcinogens and more.

Kefir is one of the best probiotic foods around, particularly coconut water kefir which is especially good for digestion due to the Lauric acid it naturally contains. Lauric acid converts to monolaurin in the body, which helps protect against gastrointestinal infections, worms, viruses and more.

Various forms of allergies are linked to internal inflammation and suboptimal gut health. The living micro-organisms present in kefir help promote the immune system to naturally suppress allergic reactions and aid in changing the body's response.

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KVASS

Apple & lime Kvass

2 apples –unpeeled and diced

Peel from 2 limes

2 tsp sea salt

1 tbs of juice from sauerkraut or Kefir Water

1 litre jar

1. Put all ingredients into a bowl and mix well with your hands
2. Place food into the 1 litre jar
3. Put cheesecloth over the lid and secure with string or rubber band
4. Leave for 3 days to ferment (longer if your kitchen is cold)– remove any froth/scum over this period
5. On the 3rd day, try the liquid to ensure it is to your taste. If it's strong enough then decant into an airtight bottle and put in the fridge (if you do not want carbonation).
6. For carbonation a secondary fermentation is required. Add ½ tsp of sugar to each bottle and leave at room temperature for 1-3 days – (depends on room temperature)

Kvass is a traditional fermented beverage having a similar taste to beer. Much like kombucha because of its fermentation process and probiotic content, it is commonly made from stale, sourdough rye bread. While it's considered a non-alcoholic beverage containing around 0.5 percent to 1.0 percent alcohol (similar to ginger beer), the longer it ferments, the more susceptible it is to becoming more alcoholic.

Kvass is very refreshing and can include delicious flavors from fruits (such as raisins and [strawberries](#)) and herbs (such as mint). It typically has a tangy, earthy, salty flavor and can be an acquired taste, though many end up craving it due to the nutritional benefits it offers. In addition to its impressive probiotic content, kvass is considered a tonic for digestion and an excellent thirst quencher.

Have a look at the kvas company for some flavor inspirations

<https://www.thekvascompany.co.nz/>

Kvass offers a wide range of nutrients, including [vitamin B12](#) and the mineral [manganese](#). Here is the nutritional background based on a 10-ounce serving of kvass made with sourdough. Note that it may vary based on the ingredients, as the beet variety also offers a host of other critical nutrients.

- 76 calories

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- 0.6 grams fat
- 114 milligrams sodium
- 1.1 grams fiber
- 1.6 grams protein
- 16 grams carbohydrate
- 0.72 grams of vitamin B12 (12 percent DV)
- 5.2 micrograms **selenium** (7.4 percent DV)
- 0.14 grams manganese (7.2 percent DV)
- 0.08 grams thiamine (5.0 percent DV)
- 14.4 micrograms folate (3.6 percent DV)
- 0.06 grams riboflavin/**vitamin B2** (3.5 percent DV)
- 0.64 grams niacin (3.2 percent DV)
- 0.5 grams iron (2.8 percent DV)
- 0.05 grams copper (2.4 percent DV)
- 23 grams phosphorus (2.3 percent DV)
- 8.8 grams magnesium (2.2 percent DV)

Perfect Blood Tonic

Why is this important? When your bloodstream becomes too acidic, it causes inflammation in the body and depletes the body of calcium because it is trying to balance out the pH levels. One of the best things we can do is consume more alkaline-promoting foods such as beets and leafy green vegetables.

Excellent liver cleanser

While many think that alcohol is the only reason for liver problems, disease-causing inflammation is also caused by poor eating choices. Beets and beet greens are rich in antioxidants containing over 1300 milligrams of potassium per cup, and as such, they help fight free radical damage and improve the health of your body at a cellular level.

Like beetroot juice, beet kvass and beets help naturally cleanse the gallbladder, improve bile flow, remove plenty of toxins and promote regularity!