



CULTURES
for HEALTH

Let's Make Kombucha!

Welcome to kombucha making! We are excited to join you on this journey. Inside this kit you will find the supplies and recipes you need to make kombucha tea at home. Making kombucha is fun and we are always here for support.

—The Cultures for Health Team

This Kit Contains

- Kombucha Starter Culture (scooby)
- Organic Black Tea
- Mesh Strainer
- pH Strips
- Recipe Booklet

**Have a question? Need a supply refill?
We are always here to help!**

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INTRODUCTION TO KOMBUCHA TEA

Brew delicious organic kombucha tea at home!

- Make delicious probiotic-rich kombucha tea
- Gluten-free, dairy free, and vegan
- Reusable culture; transfer the culture from batch to batch
- With proper care, the culture can be used indefinitely to create delicious fermented tea
- Easy to make; can be flavored a variety of ways

A Kombucha Starter Culture (aka kombucha scoby, mushroom, mother) consists of yeast and bacteria existing in a symbiotic relationship. When combined with brewed tea, sugar, and water and allowed to ferment for 5 to 30 days, the resulting kombucha tea beverage has a slightly carbonated zing and is packed full of B vitamins.

**Download a free copy of
our Kombucha eBook!**

*130 pages of tips, tricks,
and recipes for making and
using kombucha tea*

www.culturesforhealth.com/kombucha

BEFORE YOU BEGIN

- **The kombucha culture (scooby) you have received has been dehydrated.** It is generally shelf-stable but is sensitive to extreme heat. If possible, please store the culture in the refrigerator until you are ready to make your first batch of kombucha tea.
- **Never allow the culture to touch metal!** This includes measuring spoons/cups and stirring utensils. We recommend using glass jars for culturing kombucha (such as canning jars). Do not use plastic containers for brewing kombucha tea.
- **Do not consume any kombucha that looks, smells, or tastes unpleasant.**

Remember:

Clean everything well, with no soap or food residues.

Read all the instructions.

If you get lost or confused by any of the instructions, please call our customer support representatives. We are always happy to help!

WHAT YOU NEED

Ingredients

- **The kombucha culture (scoby)** you received in this kit
- **Non-chlorinated, non-fluoridated water.**
- **Tea:** You may use loose tea or tea bags. Black tea is traditionally used but kombucha can be made successfully with green. Good teas for making kombucha include Oolong, English Breakfast, unflavored Ceylon, and unflavored varieties of green teas. Do not use teas containing oils; this includes Earl Grey, orange spice, and similar teas. If using herbal tea is desired, mix with black or green tea using a larger proportion of the black/green tea. Do not use herbal tea for activating the culture or the first few batches of kombucha.
- **Sugar:** Cane sugar is best (white sugar). Evaporated cane juice is a good choice, but white sugar is fine too. We do not recommend using rapadura or similar whole sugars.
- **Vinegar:** For rehydration and the first batch, distilled white vinegar.

Supplies

- **Quart or half-gallon brewing container with lid.** We recommend glass jars.
- **Non-metal strainer.**
- **Non-metal mixing spoon, measuring cups, and measuring spoons.**
- **Coffee filter or tight-weave cloth for covering the container while brewing**
- **A rubber band**

KOMBUCHA INGREDIENT RATIOS

Container Size	Tea	Sugar	Water	Vinegar or Starter Tea
One quart	1-1/2 teaspoons loose tea or 2 tea bags	1/4 cup	2 to 3 cups	1/2 cup
Half-gallon	1 tablespoon loose tea or 4 tea bags	1/2 cup	6 to 7 cups	1 cup
Gallon	2 tablespoons loose tea or 8 tea bags	1 cup	13 to 14 cups	2 cups

ACTIVATING THE STARTER CULTURE

1. **Boil the water, and add it to the sugar in a quart or half-gallon brewing container.** Stir to dissolve the sugar.
2. **Add the teabags, or the loose tea in a tea strainer.** Let the tea steep, then remove the loose tea or tea bags. Allow the tea to completely cool. This might take several hours.
3. **Add the vinegar to the sweet tea.** Adding the vinegar is extremely important for maintaining the proper pH level and avoiding mold! We strongly recommend using white distilled vinegar for the most consistent pH level. Do not use raw or flavored vinegar. Measure the pH using a pH strip. It should be between 2.5 and 4.6. Add more vinegar if necessary to bring the pH below 4.6
4. **Add the scoby to the solution.** It will probably sink, but it may float.
5. **Cover the jar with a coffee filter or tight-weave cloth, and secure it with a rubber band.**
6. **Let the solution sit undisturbed for 30 days.** It should be out of direct sunlight, but does not need to be in the dark. The temperature should be around 70° to 85°F. During this 30 days several things will happen:
 - The scoby will rehydrate, looking somewhat thicker, and you may see dark spots or strings at the bottom of the jar or clinging to the scoby. This yeast is a natural byproduct of fermentation.
 - The brew will develop a rich, vinegary taste with possibly a bit of sweetness.

- A new scoby MAY begin to form as a cloudy haze on the surface of the liquid. A new scoby is a byproduct of fermentation and not necessarily the end result. A new scoby will not always form during rehydration, or even in the first batch or two.
- The pH value will drop indicating the production of acids by the culture. The starting pH of the liquid should be between 2.5 and 4.6, and the pH of a finished batch of kombucha should be 4.0 or less. Extra pH test strips can be purchased at most drug stores or on our site.

To determine whether your rehydration batch of kombucha is successful, look for a change in the appearance of the scoby, a lower pH, a sharper, more vinegary taste than when it started, and POSSIBLY the formation of a new scoby. If any of these have occurred, you can use or discard the liquid you used to rehydrate the scoby, and transfer the scoby into a new cooled solution of sugared tea plus distilled white vinegar. This will become your next batch of kombucha.

Quick Tip:

If you are culturing multiple products (e.g., different varieties of yogurt, buttermilk, kefir, sourdough, etc.) be sure to keep a distance of at least several feet between cultures so they don't cross-contaminate each other. Over time, cross-contamination will weaken the cultures.

MAKING A BATCH OF KOMBUCHA

Once you have rehydrated the scoby, or if you are starting with a fresh scoby, you can easily transfer it to a new batch of sweet tea. If this is the first batch you are making after rehydration, we advise you to use vinegar again. After that, you can use prepared kombucha instead. Use some from the previous batch, or buy some raw, unflavored kombucha to use.

1. **Gather all your ingredients: water, tea, sugar, the scoby, and vinegar or starter tea.** A list of the proportions of ingredients needed can be found on page 4.
2. **Boil the water, and add it to the sugar in the brewing container. Stir to dissolve the sugar.**
3. **Add the teabags, or the loose tea in a tea strainer.** Let the tea steep, then remove the loose tea or tea bags. Allow the tea to completely cool. This might take several hours.
4. **Pour the previous finished batch of kombucha through a strainer, catching the scoby in the strainer.** If you have two scobys (an old one and a new one), you can use either one in your next batch.
5. **Add the vinegar (first batch) or brewed kombucha from the previous batch (subsequent batches) to the sweet tea.** Measure the pH. Add vinegar or starter tea if necessary to bring the pH below 4.6.
6. **Add the scoby to the solution.** It may sink, float, or hover. Its position in the jar is not important.
7. **Cover the jar with a coffee filter or tight-weave cloth, and secure it with a rubber band.**

8. **Let the solution sit undisturbed for at least 5 days and up to 30 days.** It should be out of direct sunlight, but does not need to be in the dark. The temperature should be around 70° to 75°F. Ambient temperatures up to 85°F are acceptable. Cooler temperatures will slow the process down; fermentation will all but cease below 60°F. During this time several things will happen:
- *The scoby may become thicker, and you may see dark spots or strings at the bottom of the jar or clinging to the scoby. This yeast is a natural byproduct of fermentation.*
 - *The brew will develop a rich, vinegary taste with possibly a bit of sweetness. Taste it after 5 days, then every few days, to find out when it has reached the degree of tartness you like.*
 - *A new scoby MAY begin to form as a cloudy haze on the surface of the liquid. A new scoby is a byproduct of fermentation and not necessarily the end result. A new scoby will not always form.*
 - *The pH value will drop indicating the production of acids by the culture. The starting pH of the liquid should be between 2.5 and 4.6, and the pH of a finished batch of kombucha should be 4.0 or less. Extra pH test strips can be purchased at most drug stores or on our site.*

ADDITIONAL INFORMATION

The size of the kombucha culture does not affect the size of the batch you can brew. Small cultures are just as effective as large cultures.

Warmer temperatures will generally cause the kombucha to brew faster. Ambient temperatures up to 85°F are acceptable. Cooler temperatures will slow the process down; fermentation will all but cease below 60°F.

Different varieties of tea (Oolong vs. green vs. English Breakfast, etc.) will produce different kombucha tastes. Green teas make a milder kombucha while English Breakfast makes a stronger-tasting kombucha. Green tea ferments slightly faster than black teas.

If you need to store a scoby for a period of time, place it in a jar with some kombucha tea and a cover it with a tight lid. Store on the counter or in the refrigerator. A scoby can generally survive this way for up to a few weeks. Extra scobys can also be dried, composted, or given to friends.

If you are culturing multiple products (e.g., yogurt, buttermilk, kefir, sourdough, etc.) be sure to keep a distance of at least four feet between cultures so they don't cross-contaminate each other. Over time, cross-contamination may weaken the cultures.

BOTTLING AND FLAVORING KOMBUCHA

Once you have fermented the kombucha for as long as you like, you can either drink it right away, or bottle it up with some flavoring for a “second ferment” (see page 11 for flavoring ideas). This will increase the carbonation and enhance the flavor.

1. **Pour the strained kombucha into bottles that can be sealed tightly.** Leave an inch or more of room at the top of the bottle.
2. **Add your choice of flavoring to the strained kombucha.**
3. **Seal the bottle, and let it sit at room temperature for 2 to 5 days.** During this time, carbonation will increase, and the additional flavor will permeate the kombucha. The sweetness may also be reduced further through additional fermentation. You may also see the beginning of a new, small scoby develop in the bottle, looking like a blob of clear jelly. This is a sign that the bacteria and yeast in the kombucha are still active!
4. **Once the desired degree of fermentation has been achieved, refrigerate the bottled kombucha.**
5. **When you’re ready to drink the kombucha, open the bottle carefully over the sink,** as the carbonation may cause it to fizz over the top of the bottle.
6. If using solid ingredients such as fruit, ginger, or cinnamon chips, **be sure to strain solid pieces prior to consuming.**

CAUTION: If you leave kombucha too long at room temperature for the second ferment, carbonation pressure may build up sufficiently to cause the bottle to explode. This is not very common, but we advise no longer than 1 week for a second ferment.

IDEAS FOR FLAVORING KOMBUCHA

Kombucha does best with plain tea in the original fermentation. Black, pekoe, white, Darjeeling, green, Oolong, etc., are all good choices. Once your scoby is established, you can experiment with adding flavored or herbal teas to achieve interesting flavors. Make sure that the flavored or herbal tea does not contain any oils, as these can go rancid during fermentation, and spoil your kombucha and your scoby. Citrus teas usually contain oils.

If you experiment, it's best to do so with an extra scoby, keeping a backup or two in case your experiment isn't successful.

Once you have finished making the kombucha, you can add flavors for a second ferment (see page 10 for instructions). Here are some of our favorites. Be sure to strain out any solid flavorings prior to consuming.

- **Strawberry (or Any Berry) Kombucha:** 4 to 6 medium strawberries plus 1/2 teaspoon sugar, maple syrup, or honey (sugar optional).
- **Pumpkin Spice:** 1/4 teaspoon pumpkin pie spice, 1/4 teaspoon fresh ginger, 1 teaspoon sugar.
- **Lemon-Ginger Zinger:** 1 teaspoon fresh chopped ginger, 1 to 2 tablespoons lemon juice, 1/2 teaspoon sugar.
- **Grapefruit:** Juice of 1/2 medium grapefruit or 2 grapefruit segments, 1/2 teaspoon sugar.
- **Elderberry:** 4 teaspoons dried elderberries, 1/2 teaspoon sugar.
- **Clean Green:** 2 teaspoons greens powder, 1 to 2 tablespoons lemon juice.
- **Chocolate-Raspberry:** 1/2 teaspoon cocoa powder, 1 tablespoon raspberry jam.
- **Apple-Cinnamon:** 1/4 medium (sweet) apple diced or 3 tablespoons apple juice, 1/2 teaspoon cinnamon chips or a broken cinnamon stick.
- **Any Juice Fizzy Kombucha:** 2-3 tablespoons fruit juice. Try grape, apple, strawberry, raspberry, pineapple, lemon, orange, or vegetable juices.

TROUBLESHOOTING

Q. My kombucha has been fermenting for a period of time and is developing brown stringy particles. Is this normal?

A. The brown stringy particles are yeast particles and are harmless. They are a natural byproduct of the fermentation process. You can strain them out of the finished kefir if desired.

Q. I've been storing a batch of finished kombucha for a few days and it seems to be developing a jelly-type mass on top. Is this normal? What is it?

A. The jelly-type mass is the beginning of a new baby kombucha culture. Even after the main kombucha culture is removed, the kombucha remains full of living yeast and bacteria which continue to ferment slowly on their own. If allowed to continue, the jelly-type mass would slowly develop into a full kombucha scoby. Most people opt to strain out the immature culture prior to consuming the kombucha. If you accidentally

consume the culture (easy to do when it's still in the jelly-type mass state) it is not harmful.

Have more questions? We are here to help! Check out our online resources or contact us for one-on-one assistance.

Expert Advice Articles, Recipes, and How-to-Videos

<http://www.culturesforhealth.com/kombucha>

Cultures for Health Customer Support

800-962-1959 or customersupport@culturesforhealth.com

WHY CULTURES FOR HEALTH?

- ***We love our products and stand behind them.*** These are the items we use to make food for our own families and are proud to offer to your family.
- ***We are committed to providing the best customer support.*** Have a question about how to make yogurt? Looking for a new cultured food your family might enjoy? Want to know what you will need to make cheese? Need assistance ordering? We are here to help! We have assembled a talented and knowledgeable group of customer support representatives, with lots of experience culturing, fermenting, and making real food for their own families. Customer support is available via phone, email, website chat, our blog, and various social media outlets including Facebook, Pinterest, Twitter, Google+ and more.
- ***We strive to have the best available information*** including expert advice articles, recipes, and how-to videos. Your success is our success! We are continually updating our website with new recipes and helpful tips, and we incorporate advice from our customers too.
- ***We want you to be happy and successful with your food projects.*** We are always here to support our products, answer questions, troubleshoot, and more. Not happy with something you bought? Have a suggestion for some products we can offer? Let us know: we will do what we can to make it right. We value a long-term relationship with our customers.