Beginner's Guide to Kombucha
Kombucha Recipe: Continuous Brew

Yield: 14 cups (3.5 L)  
Prep time: 10 minutes  
Total time: 7 - 14 days

Ingredients

- 3.5 litres (14 cups) boiled water
- 1 cup (200 g) granulated organic cane sugar
- 8 bags black tea, green tea, or a mix (or 2 tablespoons loose tea)
- 2 cups (500 mL) starter tea from last batch of kombucha or store-bought kombucha (unpasteurized, neutral-flavored)
- 1 SCOBY (homemade, donated by friend, or purchased online)

Equipment

- 5 Litre glass container with plastic spigot (smaller container is okay - adjust recipe above accordingly)
- Large pot or glass jars (to steep tea in)

Making kombucha

1. Place the large glass container that will house the brew in a dark, undisturbed location at room temperature. Ideally, place the container about a foot off the floor to allow for ease of bottling after the 7 - 14 day fermentation period. It will be hard to move the vessel when the tea has been added.
2. Make the sweetened tea by combining the boiled water, sugar and tea in a clean glass container or pot. Give it a swirl to ensure the sugar has dissolved and allow it to steep until the tea has cooled to room temperature.
3. When cooled, remove the tea bags (or strain out the loose tea) and add the sweetened tea to the large glass container.
4. Add the starter tea and then gently place the SCOBY on top of the liquid with clean hands.
5. Cover the container with a clean cloth, paper towel, or coffee filter and secure with a rubber band.
6. Ferment for 7 to 14 days. Check on the kombucha periodically to ensure the SCOBY is thickening and that it looks healthy (no dark spots or signs of fruit fly larvae).
7. After 7 days, give the brew a taste-test. If the taste is to your liking (some like it more sweet, others like it more tart) then the kombucha is ready to bottle!

Bottling kombucha

1. Using clean glass bottles with plastic lids, gently open the spigot of the large container housing the brew and fill your bottles about 3/4 full.
2. Leave at least 2 cups (500 mL) worth of brew in the large container to serve as the starter tea for the next batch.
Flavouring & carbonating kombucha

1. Add a juice of your choice to the bottled kombucha, leaving about 1 inch (2 cm) of air at the top of the bottle for carbonation (for the recipe above, I juiced fresh ginger and apples to add to my brew). For some flavour suggestions, see page 8.
2. Secure the lid and store the bottled kombucha at room temperature out of direct sunlight for 24-48 hours, which will allow for carbonation.
3. Refrigerate to stop fermentation and carbonation. Consume the kombucha within a month.

Making a new batch of kombucha

1. Make the sweetened tea as outlined above and add to the large vessel (already containing the SCOBY and starter tea) when the mixture has cooled.
2. Cover the container with a new clean cloth, paper towel, or coffee filter and secure with a rubber band. Allow the mixture to ferment for an additional 7 to 14 days.

Notes

- Avoid using metal throughout the brewing process, but especially when the SCOBY has been introduced to the tea. Metal can leak into the brew and affect the taste and damage the SCOBY's growth.
- The more SCOBY that builds the shorter the fermentation time.
- The warmer the environment the shorter the fermentation time.

Recommendation: if you’d like to learn the basics about kombucha - what it is, the history, health benefits, potential risks, cost and savings - check out this PUL article.
Step 1: acquire a large glass container with a spigot at the bottom and make sure the spigot is plastic and not metal (disclaimer: although mine looks metal I assure you it’s completely plastic on the inside). The size depends on how much you want to make. The container I use holds 5 litres, but I fill it with 3.5 litres of tea.

Step 2: find a SCOBY and about 2 cups (500 mL) of starter tea. You can make your own SCOBY from scratch (starter kits found at stores such as WholeFoods), buy one off of a friend who also makes kombucha, or buy for people selling extras in your area (be smart and purchase from someone who appears reliable and hygienic).

Step 3: acquire organic green or black tea (pictured here is black). Loose tea works too but you’ll need to strain it before Step #8 below.

Step 4: place granulated organic cane sugar and tea bags in a heat-proof jar (a pot over the stove works too).
Step 5: add boiling water to the sugar and tea.

Step 6: give the mixture a swirl to ensure the sugar dissolves. Let the mixture steep until the tea has cooled to room temperature.

Step 7: add boiled water that has cooled to room temperature to the kombucha container. Note: this is an optional step. Alternatively you could have added more boiling water to the sugared tea mixture while steeping. I just happened to make a concentrated tea of lesser volume and needed to add extra water to total 3.5 litres.

Step 8: add the sweetened tea into the kombucha container; make sure the tea is at room temperature before adding as hot liquid can kill the SCOBY.

Step 9: add the starter tea, which serves to acidify the sweet tea to a point where bad bacteria cannot take over. Then add the SCOBY into the kombucha container using clean hands.
Step 10: cover the kombucha container with a clean cloth or paper towel (do not use cheese cloth!). Place the container in a dark area where it won’t be disturbed. Now you let the brew sit and ferment for seven days and up to two weeks.

SCOBY development

Day 1  Day 3  Day 5  Day 7
General insights & tips

Cleaning containers and jars
- Ensure all containers are clean and free from soap suds to avoid destroying the SCOBY.
- If possible, I recommend rinsing the inside of containers and jars with a little bit of apple cider vinegar to mildly sterilize.

Cleaning hands
- After thoroughly cleaning my hands with soap and rinsing well, I also like to rinse my hands with apple cider vinegar. This is optional.
- Don’t wipe your hands on a dirty cloth or your pants after washing your hands and before touching the SCOBY.

Avoiding metal
- Metal can leach into the brew and affect the kombucha’s taste and damage the SCOBY’s growth.
- Generally, it’s okay to use metal utensils when preparing the tea, but avoid metal at all costs once the SCOBY has come in contact with the brew.

Choosing a container
- You don’t want the depth of your brew to be greater than the width/diameter of your SCOBY. Keep this in mind when choosing a container to house the brew – often shallow is better.
- If using a larger or taller container, simply fill it less than the width of the SCOBY.
- Ensure there is no metal in the container or spigot.

Choosing teas
- Suitable teas include: green tea, black tea, white tea, oolong tea, or a mix of these.
- Avoid using flavoured teas, herbal teas, or teas that contain oils such as Earl Grey.
- I found that green tea makes a kombucha that’s more tart like green apples, and black tea makes a drink that’s a little sweeter like desserts. Mix it up and see which you prefer!
- Black teas create a more dense SCOBY, while green teas make a thicker, more “fluffy” looking SCOBY.

Ratio of ingredients to batch size
- Want to make more or less? Just stick to the ratio of 1 cup of sugar, 8 bags of tea and 2 cups starter tea per 14 cups (3.5 litres) of water. Divide or multiply by these numbers accordingly to get the volume you desire.
- Regardless of volume, one SCOBY is all you need – just keep in mind that a larger batch will take longer to ferment.

Fermentation duration
- Shorter fermentation = sweeter taste
- Longer fermentation = more vinegar-like taste
- Cold environments & fewer SCOBY layers: require longer fermentation
- Warm environments & greater SCOBY layers: require shorter fermentation
Secondary fermentation

- This is optional, but necessary for carbonation.
- After a week has passed with the SCOBY in the sweet tea, taste it and see if you like it. If so, bottle it in plastic pop bottles with plastic lids (cheaper) or old grolsch-style bottles with a flip top (this is what I use).
- To aid the yeast in making carbonation add cut-up fruit and/or fruit juice to sweeten it and add flavour. Alternatively, you could use 1 tsp of sugar per litre of bottled liquid… but I think fresh is best.
- Leave about 1 inch of air at the top of the bottle, secure the lid and store the bottled kombucha at room temperature out of direct sunlight for 24-48 hours, which will allow for carbonation.
- Refrigerate to stop fermentation and carbonation. Consume your kombucha within a month.

Flavoured kombucha combinations

These can be cut-up, pureed, or added in juice form. Mix-and-match to make a unique flavour!

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<thead>
<tr>
<th>Fruits</th>
<th>Spices</th>
<th>Florals &amp; herbs</th>
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<tbody>
<tr>
<td>Apple</td>
<td>Cardamom</td>
<td>Basil</td>
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<td>Blueberry</td>
<td>Chai blend</td>
<td>Hibiscus</td>
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<td>Cranberry</td>
<td>Cinnamon</td>
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<td>Grapefruit</td>
<td>Ginger</td>
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<td>Lemon</td>
<td>Pumpkin pie spice</td>
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<td>Orange or blood orange</td>
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<td>Passionfruit</td>
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Common questions & answers

Why doesn’t my SCOBY float?
- It’s good practice to make sure that at least one side of the SCOBY is touching the surface of the sweet tea – this allows the good aerobic bacteria breathe and lowers the possibility of bad bacteria or mould taking over.
- Even with gentle placement the SCOBY may not always float at the top, and that’s okay. Don’t stick your hand in and start playing with the SCOBY. Let it rest and in some cases it floats up with time.
- A new cream-coloured layer of SCOBY should start forming on the surface of the kombucha within a few days. If the parent SCOBY floated to the top, the new baby SCOBY will attach to it. If the parent SCOBY never made it to the top, a new SCOBY will form separately and that’s okay too. Simply ensure the new SCOBY looks healthy and is free from visibly black and mouldy spots.

Why does my kombucha smell like vinegar?
- In the beginning, the kombucha will have a neutral or even sweet smell. As the fermentation progresses, the brew will begin to smell more like vinegar and this is normal.
- If the brew begins to smell mouldy, rotten or generally unpleasant something may have gone awry. When in doubt, throw it out. This includes discarding both the tea and the SCOBY.

What is this string floating in the solution?
- You may see brown strings floating in solution or attached to your SCOBY. These are normal strings of yeast.
- Although these are harmless, in time you may notice the strings sediment near the bottom and clog the spigot when you attempt to extract and bottle your kombucha. When this happens, you may need to clean the container (see the final bullet point in this section for directions).

What are the coloured patches on the SCOBY?
- Dark black spots may indicate the growth of ‘bad’ bacteria or yeast. If mould is visibly present, something has gone wrong. When it doubt, throw it out and start over. This includes discarding both the tea and the SCOBY.
- Small holes, bumps, different shades of cream, light brown or even slightly dark brown patches, and/or clear jelly-like patches are completely normal. The differences in colour that make up your SCOBY are likely due to the changes in the environment in which the container is located.

What do I do if there are fruit flies on the SCOBY?
- If you see fruit flies in the container throw everything out. You can bet that they have probably laid eggs. The SCOBY has been contaminated and you need to start over.
What if I’m going on vacation?

- If you plan to leave for longer than 3 weeks: place the SCOBY and starter tea, combined with a fresh batch of tea, in a sealed glass container in the fridge. This mixture will last for about 6 weeks.
- If you’ll be away for 3 weeks or less, simply make a new batch before your departure. When you return discard most of the kombucha, reserving 2 cups (500 mL) as a starter, and start a new batch. There should be nothing wrong with the kombucha made while you were away – it just may taste too much like vinegar for you to enjoy drinking.

What should I do if the SCOBY layers are getting really thick?

- Every once in a while, you will have to separate your SCOBYs and either start a “SCOBY Hotel” (check out this site for more info), give them away to friends, or sell them.
- To remove some layers, peel off the bottom (oldest) layer after every 2 - 4 batches.
- It’s always a good idea to have at least an extra few SCOBYs in the fridge in case something contaminates your existing brew and you need to start over.

When do I need to clean the container?

- Before starting a new batch, remove the SCOBY and starter tea and place in a clean glass container.
- Wash out the large vessel by rinsing with hot water and then rinsing with apple cider vinegar. Allow the water or vinegar to run out through the spigot as well to clear out any strings that might be impeding the flow of liquid.