

Naturally Fermented Ginger Beer!

So basically there's two components to this recipe. There's the 'ginger bug,' and there's the ginger tea. The ginger bug is the culture of yeast and bacteria that naturally grows on the skin of ginger. These little guys consume sugars, which produces fermentation. The tea (in brewing terms, this unfermented beer is called a 'wort,' it contains the nutrients that the yeast will consume) is what will become the ginger beer once the bug is added to it. You can flavor this however you want!

The method I showed you of using the remnants from each bottle to restart the fermentation process is extremely convenient, but might not lead to proper fermentation all the time. For that reason, I'll give you this slightly more complex recipe, which is what I use. While it might be intimidating, I swear it gets easier once you do it a few times!

Starting your Ginger Bug

Starting a ginger bug from scratch is actually pretty easy to do! All you need is sugar, water, fresh organic ginger, and patience. If starting completely from scratch, this process takes 4-7 days. Since you should have some live cultures left over from your previous batches, it might be a bit quicker.

- Fill a jar up with about 2 cups of filtered water, and mix in a tablespoon (10 grams) of sugar. If you have any dregs leftover from previous batches, feel free to add them here to help kickstart the fermentation!
 - Any caloric sweetener will work fine, and since most of it is going to end up getting consumed by the yeast, I don't worry too much about getting fancy with the sweetener. I just look for the cheapest unrefined cane sugar.
- Chop up about 20 grams of lightly washed fresh ginger (a piece about the size of your thumb will do).
 - Don't worry about being super precise in your measurements or chopping; all you're doing is introducing the naturally occurring yeast from the ginger into a solution of sugar and water.
- Mix the ginger into the sugar water, cover with a loose fitting lid or a cloth secured with a rubber band.
 - If you close the lid tight, pressure will build up, and could end up making a mess! The purpose of the lid here is just to keep bugs and dust out.
- Let sit at room temperature, away from direct sunlight, for 24 hours.
- After 24 hours, add another tablespoon of sugar, and a tablespoon of fresh chopped ginger. Stir well and let it rest for another 24 hours.
- Repeat the previous step for 3-7 days, until you start to see lots of bubbles forming on the surface, and more are released when you lightly shake the jar. Lots of bubbles means your Bug is active and ready to go!

Maintaining your Bug

Now that your bug is active, all you have to do is take care of it, and it could last a lifetime! (And if you don't take care of it, you can end up with natural vinegar, which you can use for cooking or dressings! It's really a win-win)

Feeding your bug

To keep your bug alive, all you need to do is make sure there's sugar in the solution for the yeast to consume. Adding more sugar is called 'feeding.' My rule of thumb is that I feed every 1-2 days if the bug is at room temperature, but it can last for weeks in the fridge unattended. For good measure, I try to still feed it every 1-2 weeks if I'm keeping it in the fridge.

- To feed your bug, simply dump about $\frac{1}{3}$ to $\frac{2}{3}$ of your solution, and add a tablespoon of sugar and a small piece of ginger, chopped. Add a little bit more water, you'll want to have 1-2 cups total.
 - *A note on dumping:* this might seem like a waste, but it helps keep your yeast culture fresh, and the acid levels relatively low. If you never strained your ginger bug, you could end up with something closer to vinegar. As far as how much you need to dump each time you feed, I usually go by smell. If it smells really strong and acidic, I dump more. If it smells light (a bit more like yogurt than vinegar), I dump a less. Ideally, you can time your feedings so the 'dumped' liquid can go straight into your next batch of ginger beer.
- Once you've fed your bug, it'll be ready to add to your ginger tea in anywhere from 12 to 32 hours. I still have yet to find the 'perfect' timing, but I generally judge when it's 'ready' if there are lots of bubbles, and it smells pleasantly funky. Since this is wild yeast we're working with, it's hard to predict exactly how it will behave, so don't worry too much and enjoy the surprises that come from your experiments!

Making your Ginger Tea, and Fermenting it

This is where you really get to choose what kind of flavor you're going for. If you're going for convenience, simply use your favorite tea bags, and add sugar until it's a fair bit sweeter than you'd usually like, since the yeast will end up consuming most of it. (But not so sweet that it's a syrup).

If you want to go all-out on flavor, follow this recipe!

2L water

200g fresh ginger

Substitute 50g with fresh tumeric for a colorful twist!

230g sugar

1 star anise

10 black peppercorns

6 allspice berries

Note: for the spices, feel free to play around.

6 cardamom pods

I love to add other botanicals and spices like rosemary

1 clove

lavender, rose petals, or add a kick with jalapeño,

cayenne, 100 mL active ginger bug

Red chili flakes, or even even szechuan

peppercorns!

- Chop the fresh ginger, or blend it with half of the water. Add to a pot with the rest of the water and bring to a boil.
- Add spices and sugar, and simmer on low with the lid on for 10-20 minutes.
 - Taste it as you go! It'll taste much sweeter than the end product, but this is where you get to think about your spices, and how much kick you want your ginger beer to have.
- Let cool, and strain well.
 - If you used the blender, you'll have more ginger pulp to strain out, so use a fine cheesecloth.
- *Make sure it's room temperature*, and then add about 100 mL of the strained liquid from your ginger bug, and mix well. Let sit with a loose fitting cover for 12-24 hours.
- Mix again, and pour into your swing-top bottles, leaving about an inch of air. Seal and let sit at room temperature for 1-3 days.
 - I do about 2 days, but this is a fun time to experiment!
 - Be sure to "burp" your bottles halfway through the fermentation. This just means opening the swing top bottle to let out some of the gas produced by the yeast, so that it doesn't spill out when you're ready to drink your ginger beer.
- Refrigerate!
 - Once in the fridge, your beer should all but stop fermenting. This means that you can leave it there for weeks, or drink it as soon as it's cold. The longer you leave it, the more your flavors will change, as it will continue to ferment very slowly.

Cheat Sheet:

- Day 1, evening: **Feed your Ginger Bug**
 - Dump some, add a Tbsp of sugar, and some more water, maybe some fresh ginger. Room temp, until lots of bubbles form.
- Day 2, afternoon/evening: **Make your Ginger Tea**
 - Let cool, strain well. Add ginger bug to your tea, and mix well. Let sit overnight with a loose fitting lid.
- Day 3, morning: **Bottle your Ginger Beer & Ferment!**
 - Mix well, and pour into swing-top bottles, leaving about an inch of air. Seal and let sit at room temperature. 1-3 days.
- Day 4, 5, or 6: **Refrigerate.**
 - Once in the fridge, your beer should all but stop fermenting. This means that you can leave it there for weeks, or drink it as soon as it's cold. The longer you leave it, the more your flavors will change, as it will continue to ferment very slowly.

Videos that I used to learn this process!

Bug- https://www.youtube.com/watch?v=bbgd-RS_tJ0

Beer - https://www.youtube.com/watch?v=AN_ICyc7D64