

How to Make A Bread Starter Culture from Scratch

Tools needed: A bowl, water at room temperature or slightly warmer, flour (ideally freshly milled and organic), a scale or cup measurer, a whisk, a spatula and a clean dish towel

- measure out 150 g flour and 150 g (about 6 oz) water in a bowl. (Baker's think metric and use a scale for just about everything, but don't worry if you don't have one: At this point it's more important to have equal amounts than exact weight).
- Whisk vigorously and cover with a dish towel
- Leave to sit at a warm (not hot!) place - a proofing box is ideal. Desired temperature is between 75°-80°F.
- Leave undisturbed for 20-24 hours, away from other culturing foods (e.g. don't place the bowl next to your fermenting cheese, yogurt or kombucha to rule out any other microorganisms colonizing it
- Discard half of the mixture after 24 hours (if you do see some fermenting activity earlier than that you can do this step earlier)
- Add 75 g (3 oz) of new flour and 75 g (3 oz) new water to this mixture after you've discarded (compost!) the rest and stir vigorously again. Cover and wait for another 20-24 hours.
- Repeat this process every 12-24 hours and maintain that somewhat warm environment all along. If your environment is cold or you don't see any activity after about 4-5 days you may have to heat your water to 82-85°F for refreshments
- Don't worry if you don't see much happening in the first week, it may take up to 10 days or even longer to start a bread culture. It depends a lot on the flour you use and the temperature.
- After about 10 days you should have a visible active starter culture that looks bubbly and smells pleasantly sweet and grainy, not acidic
- Once the bacteria and microorganisms are established you can start baking with it and also maintain it (see "Feeding Instructions" handout)

FACTS ABOUT YOUR STARTER CULTURE

If you are starting a sourdough culture from scratch you are essentially starting a spontaneous fermentation process. Bacteria and microorganism are on the grain kernel and in the air around you and - when meeting the right environment - will start a sourdough fermentation which triggers a lot of questions especially: Is the process is safe?

The good news is that making a sourdough is very safe, primarily because of acidification and a low pH during the fermentation process. The baking process also helps with keeping the health risk of food contamination minimal. Once a stable microflora is established in a starter it's generally very robust and will keep its composition even with extended storage.

In the rare case the developed starter cultures tastes very unpleasant (and the bread baked with it too) discard the culture and start a new one. It indicates that the lactic acid bacteria you were looking to develop is not strong enough to play a dominant role in your culture.

The benefits of baking with sourdough are striking, ranging from better digestibility of the grain to better absorption of nutrients and an extended shelf life of the bread.

I would recommend that you use fresh, stone-milled flours for your starter culture as it contains a lot of "food" for the microbes. Always use pure water to start, go with good bottled water if unsure about your water quality.

HOW TO MAINTAIN ("FEED") A SOURDOUGH STARTER CULTURE

Every sourdough needs a starter culture. You can make your own at home (see "How to make a Bread Starter Culture from Scratch") or get a bit of starter from a sourdough bakery.

Ideally the starter is fed (= refreshed) daily to maintain the metabolic activity of the microbial communities. To refresh your starter take 1 TBSP from the "old" starter (you will need to use or discard the rest of the old starter) and mix it with

1/2 cup flour and 1/2 cup water. This will be about 20 g starter to 100 g flour and 100 g water. Leave it out at room temperature. Repeat this process daily.

If you don't bake a sourdough bread very frequently you have the option to store the starter

- up to a week: simply place your starter in the fridge at about 40° F.
- up to several months: create a rather dry starter by refreshing it with 30% water and 70% flour. Then store it in the fridge at about 40° F.
- Dehydrate your starter

If your starter is kept in the fridge for an extended period of time it may develop a grayish liquid on top and a smell reminiscent of old Parmesan cheese. This is nothing to be alarmed by, it just means that your culture has developed some acids, water and alcohol. Your starter is not very active at this point but it's not dead. You can revitalize it with several small feedings.

Before using your stored starter for your next sourdough bread you have to activate the metabolism of the microorganisms by feeding it several regular refreshments.



ripe, active starter culture



inactive starter culture, neglected or old