

San Francisco Sourdough Bread

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Making San Francisco Sourdough Bread

You will have a much easier time of it—and lots more fun—if you will sit down and read through this little booklet two or three times before you touch an ingredient. Alton Brown says to do that with any new recipe you're going to follow—and this process is more than just a recipe! I have underlined and bolded the really crucial parts, so pay special attention to those. If you want a copy with larger print, just go to the [Instruction Booklet](#) page on my website and you can print a 'full-sized' copy. Then be sure to go through the entire breadmaking process the first couple of times step-by-step with this booklet. I love hearing from my breadmakers, but before you email me with a question, please re-read these instructions once more. The answers to fully 99.9% of the email questions I receive can be found right here in this little booklet. There's really way too much information to absorb in just one or two readings. Thanks!

Also, please keep in mind that any breadmaking is a process of continuous adjusting and you can count that twice for sourdough. Many different variables contribute to the final results and I could never go into enough detail here to describe every combination of events that make your final loaf of bread the way it is. You are unique, your kitchen and oven are unique, and your baking techniques are also yours alone. For those reasons—not to mention different flours, waters, temperatures and humidities—breadmaking is always an adventure in learning. I am still learning and I've been baking bread since I was a teenager (which was a very long time ago)! So, please be patient with yourself, your starter, and your bread. If it doesn't turn out exactly like you want it, there are always adjustments you can make to get closer to perfection in your eyes. Remember that perfection in your eyes could well be totally different from that in another baker's view.

I have tried to put answers to the most often asked questions on the FAQ page of my website. If you can't find the answer to your question in this little instruction booklet or on the website, then by all means, email me! Tech support is usually quick and always free. I really want you to be a successful sourdough breadmaker, and you can!



Activation

NEVER add any commercial yeast—or ANYTHING other than flour and water—to your sourdough starter. In a mixing bowl, mix ½ cup of tap water with ½ cup of white flour—all-purpose, whole wheat or bread flour—doesn't matter. If your tap water is really cold, you can warm it to 68-75° F. To this mixture, add the contents of your San Francisco Sourdough Starter package and stir it up—lumps are OK. Cover the container with a tea towel. The important thing is to keep this mixture at the correct temperature—above 65° and not more than about 85° while the wild yeast and the friendly bacteria come out of hibernation. If your normal room temperature is cooler than 65°, then the easiest way to achieve the temperature you need is to turn on the light in your oven and put your starter mixture in it. But be sure to put an accurate thermometer in the oven with your starter—you can use the instant-read thermometer that's on my website—the same one you'll use later for checking to see when your bread is done. This is important!! You DO NOT want to expose your starter at any time to temperatures above 90°. Heat is just about the only way you can kill those little creatures that make our bread so good. (Well, you *could* starve them to death, but that's pretty hard to do. When they run out of food, they just act like little bears and hibernate.)

Somewhere between 8 and 24 hours after you first began, you will start to see enough bubbles to know that the wild yeast is beginning to wake up. You'll probably have to stir the mixture to be able to see the very first tiny bubbles, so feel free to stir any time and as much as you want. Stirring is actually good for your starter at any time because it redistributes the critters and the food supply, giving all the babies a chance for another snack. You won't see many bubbles on top of your mixture, but when you stir it and look closely, you'll see lots of tiny bubbles throughout the mixture. As soon as that happens, reduce the volume to ¼ cup and feed it with 1 cup of 70°-75° water and 1 cup of flour. From now until the end of the approximately 72 hours of activation, you will need to feed your new pet regularly—whenever it reaches its peak.

How do I know when it's time to feed? You'll know because the yeast and lactobacillus organisms will eat what you fed them, get busy and start metabolizing and multiplying, and you'll see the difference with a slight expansion of volume, a thickening or clotting of the texture and more bubbles—and larger bubbles—throughout the mixture. When that happens, then reduce and feed. If your starter goes past this 'most active' stage, then you'll see the bubbles decrease in size and number and you'll probably see some hooch on top.

After that first feeding **whenever your starter looks bubbly and active again**, stir the mixture well and then pour out (yes, down the drain!) all but a quarter-cup of the starter and feed what's left with one cup each of flour and water.

I know, I know, I really do hate waste too, but this step actually helps to avoid wasting flour and water. The more starter you're feeding, the more food you have to give, because larger quantities of starter contain much larger populations of hungry organisms which want much more flour and water to eat. No, you can't use it for anything else right now except for maybe glue. Throw it out! Flour is cheap and that little bit of water is free. **Throw it OUT! Please just trust me here. You need to throw out all but 1/4 cup of the starter before every single feeding during activation.**

After the peak of activity, if you haven't given your starter another tasty meal of flour and water, the mixture will clearly begin shutting down its activity. You'll know that this is happening because the volume will shrink slightly and eventually a layer of liquid (hooch) will form on the top. If you see this happen, be sure to reduce the volume and feed the yeasties right away. Don't get up in the middle of the night to feed your starter. Whenever you can't be around to check it and feed whenever it reaches or passes the peak of activity, just give a double or triple feeding so that your sourdough babies won't starve to death. (One-half cup of starter and two or three cups each of flour and water. You will never ever kill your starter by overfeeding it.)

After two or three feedings, you'll begin to see some predictable and regular activity—some larger bubbles at the top will be the first sign, and if you look at it every hour or so, you'll be able to see the activity grow and then peak before it begins to taper off—signaling that it has used up the flour and water from the last feeding. If you look closely, you'll also see millions of really tiny bubbles throughout the mixture. You'll also notice that the mixture becomes thicker and more clotted and glutenous. **Before the activity slows down, always reduce the volume and give it another feeding.**

As long as the starter is not in the refrigerator, it needs regular feedings. When in doubt, always feed. You cannot overfeed your starter. Never leave it at room temperature or warmer without giving it regular feedings. You do NOT want your starter to go into a inactive state at room temperature because too many of the little organisms will die as a result. That's why we refrigerate the starter when we're not getting ready to bake. The colder temps allow it to hibernate in a state where it requires very little food. Unless you

are preparing to bake bread, your starter belongs in the refrigerator after the three days of activation. I keep mine in one of the glass jars that are on my website.

As your new pet becomes more and more active, it will also begin to smell less like flour and water and more yeasty with a pleasant sour fragrance. *(If after 24 hours of activation you can stir it and still see no tiny bubbles at all, then you should email me right away.)*

After a minimum of three full 24-hour days of regular feedings or when you can clearly see the mixture get very active within an hour after a feeding, you'll know that the activation process is finished. This is the only time you'll have to wait three days to bake. Now you can do one of two things:

1. Put your starter into the fridge until the day before you want to bake your first loaf of San Francisco Sourdough Bread.
2. If your starter is at its most active state—full of bubbles and thick and glutenous, then you're ready to go directly to The Dough on Page 6 and make your first loaf of San Francisco Sourdough Bread right away with the **very active starter** you've just finished activating! Don't forget to save some for next time!

Care and Feeding of Refrigerated Starter

When you first put your starter 'stash' into the fridge, leave the cover loose until the mixture is chilled throughout, or the pressure will cause it to explode—what a mess that would be! After about 36-48 hours, you can tighten down the lid. I keep mine in the one-liter glass wire-bail jar that is on my website. It's small enough not to take up too much valuable fridge room and large enough to take out and feed without having to transfer the starter to a different container. It has a tight-fitting top, so if it accidentally turns over, all my precious stash isn't spilled. Plus, you can see clearly through the glass jar and watch what's going on with your new partner in breadmaking.

About once a month, take your starter stash out of the fridge, stir it well, (with my 'Sourdough Stirrer' which is perfect for mixing your sticky starter as well as lots of other things) reduce the volume if necessary, give it a feeding and let it come to room temperature. After about a hour, or when you can see good activity beginning to happen, put it back into the fridge, without tightening down the lid, of course, until it is thoroughly cold and asleep. After it has been refrigerated for a couple of weeks or so, it's entirely

normal to see some beige or gray-colored liquid on the top. The old-timers called this 'hooch' because it contains alcohol and some people actually drank the stuff. I don't recommend it. Just stir the hooch back into the starter mixture any time you take it out of the fridge to use it or to feed it. Or, if you'd rather, you may pour it off and then dilute what remains with plain water. Your choice!

Making Bread--The Sponge

Sponge is the name that bakers use for the mixture that they allow to ferment or proof before mixing in enough flour to make a dough. The night before you want to bake, take your stash out of the refrigerator. If you want to bake on Saturday morning, take out about a quarter-cup of cold starter and put it in a bowl on Friday evening.

Feed what is left in your storage container with about the same amount of flour and water, reducing it before feeding if there won't be room in your container. In other words, if you have about a cup in your jar, feed it 1 cup each of flour and water. You don't need to keep more than about a cup in your jar. Stir it and leave it at room temp for an hour or so, then put it back in the fridge (no tight lids!) so you'll have starter the next time you decide to bake. This is your "stash."

Feed the ¼ cup that is in the bowl 3 cups each of water and flour, cover it with a tea towel or plastic wrap, and leave it at room temperature (between 65° and 85° F). Then on Saturday morning, you should have a very active sponge. **It's always important to have a very active sponge to use to make your dough. If it has passed its most active point, you'll get slow or no rises.**

The Dough--Classic San Francisco Sourdough Bread Recipe

Makes a 1½ pound loaf or three or four 'mini' loaves

2½ cups of **very active** starter (*the sponge that you have allowed to ferment for the past 12 hours*)

2-2½ cups of bread flour, **or enough to make dough that's still moist but not too sticky**

2 teaspoons of salt, or more, up to 1-2 tablespoons if you like (I like a lot!)

½ teaspoon Ascorbic Acid (*Vitamin C pills crushed fine or Fruit Fresh*) added to the dough with the first flour—enhances the rise—sometimes it's already in your flour—look on the ingredient list

Other Stuff You'll Need

A hand spray bottle full of water

An oven-safe custard cup or other other container that will fit on the floor of your oven

A baking sheet or loaf pan or whatever you want to bake on or in

Some coarsely ground cornmeal—usually labeled stone ground

An egg and 1 Tablespoon of water for an egg wash

A pastry brush or clean bristled paint brush

A new, sharp single-edged razor blade or razor knife

Some vegetable oil and/or vegetable oil spray—like Pam

A tea towel or plastic wrap or both

I like to use my KitchenAid stand mixer to mix the dough, but you can make and knead the dough in a bread machine if it will handle a fairly stiff dough and you can intervene during the rising cycles. A recipe for sourdough in the bread machine is on the website. Naturally, you can make it entirely by hand, just like the original bakers of sourdough did.

Put the 2½ cups of the sponge (**very, very bubbly active starter**) into your mixer with the paddle attachment, add about a cup and a half of the flour and the ascorbic acid and mix well. At this point, it's good if you can stop for 30-90 minutes before adding more flour. This resting period, called autolysis by the bread geeks, allows the flour time to absorb the liquid.

Next add the salt and mix and add flour until the dough gets too heavy for the paddle attachment. Change to the dough hook and continue adding flour until you have a fairly stiff dough—still moist but not too sticky. You just can't use exact measurements in breadmaking.

After your mixture has become dough and is a cohesive mass that isn't sticking to the sides of the bowl (it will probably be sticking to the bottom of the bowl), knead with the dough hook for about five minutes. If you're kneading by hand, ten minutes is probably the bare minimum time. I let my KitchenAid mixer do most of the kneading, but I usually finish with a minute or two by hand. Getting your hands on the dough is the only way to really gauge its exact condition. So be sure to dump it out on a lightly floured counter and get your hands in it.

Now, oil (or spray with Pam) a straight-sided dough rising bucket like on my website, if you have one. You can put a rubber band or a piece of masking tape around the bucket so you'll be able to tell when the dough has almost doubled. If not, use a large bowl. Place the dough into your well-oiled container then oil the top. Cover with a tea towel or plastic wrap and put it somewhere that it's not drafty and is between 65° and 85° F. The cooler range is fine—better in fact. It will take your dough longer to rise, but cooler rising temps also improve the flavor and texture of your bread. Remember though--don't go any warmer than 80°-85° F.

Look at your rising dough every 30 minutes or so and when it is about 1½ to 2 times its original size, you're ready for the next step. If you don't have a straight-sided container for this first rise, it's a little harder to tell when it's time to start the shaping process. Here's a good test: Push your finger into the dough about one-half to three-quarters of an inch. If you can see the dough spring back and fill the hole within a minute or so, then it isn't finished with its rise. If most of the indentation remains, you're ready to proceed to the next step.

Shaping and Baking

Push your closed fist gently into the middle of the dough all the way to the bottom of the container, then gently push the outside parts of the dough into hole you created in the middle. This is called 'punching down' the dough and serves to rearrange the gluten strands to encourage a proper second rise. Now dump the dough out of the bowl and on to the counter. If you've greased your container well, it will slide right out. Divide the dough (with the Dough Divider/Scraper on the website) into the portions you'll use for your final shaping and 'round' each one, then let rest on the counter for about 15 minutes, covered, to keep it from drying out.

Rounding is important and not many bread recipes discuss it. Here's how it's done: Pick up the piece of dough that will become a loaf of bread and gently pull the edges of the dough that were just cut underneath, making a round ball of dough so that you have sort of a 'skin' around the ball of dough and no cut edges are exposed. Pinch the bottom together. Then put the 'round' on a clean counter with the bottom side down and put your hands on the sides of it. Push the round from alternate sides so that it goes around and around on the counter. You'll see the skin tightening as you do this. Do it gently so you don't break the skin. Alton Brown and his cohort, Shirley Corriher, both of whom I admire greatly, taught me about rounding and its importance.

While your dough is resting, prepare your baking sheet by sprinkling some coarsely ground corn meal where your loaf (or loaves) of bread will go. You can oil it with vegetable oil or spray the pan first with Pam if you like, but the cornmeal adds interesting texture to the bottom of your loaf of bread, so don't leave out that step. There's a good cornmeal shaker on my website that I keep full of cornmeal all the time. Actually, I have several—one for cornmeal, one for flour, one for powdered sugar and one for kosher salt. They're very handy. If you want to bake your bread in loaf pans, now is the time to grease them well. You can also dust the bottoms with cornmeal. Be sure to check out the two bread 'forms' on my website. The Rada Unglazed Stoneware Loaf Pan thinks it's a mini-brick oven and bakes a wonderful loaf of bread. To make it even better, unlike other unglazed stoneware, you can wash this pan in the dishwasher with no worries. The Chicago Metallic double French Bread loaf pan is great at shaping your sourdough bread into beautiful long baguettes without the worry of its rising out instead of up. I use them both all the time.

For the oven: If you have a baking stone, put it into the oven before you preheat the oven. (If you don't have a stone, don't worry—your bread will still turn out great!) Also before preheating, sacrifice a custard cup to baking (the minerals in the water won't come off) and place it on the floor of the oven full of water. If this won't work, put a pan of water on the lowest shelf. Or, don't use the cup or pan of water and just spritz more with water while baking—whatever works for you and your oven!

Preheat the oven to 400° F for 45-60 minutes—so that your baking stone, water, and oven are all fully and evenly heated—before putting your bread into the oven.

Now that your dough has rested, it's time to shape it. You can shape it any way you want—round is traditional. But I have experimented and baked just about every shape I could think of—and they've all turned out great. For a round or oval shape, pick up the dough and gently push the edges toward the underside until you get the shape you like. Then be sure to pinch the dough together firmly on the underside. If you're making a round shape you can do the 'rounding' thing again. When you're satisfied with the shape, place your dough on top of the cornmeal on your baking sheet or put it into the loaf pan. Cover your loaves with a tea towel or plastic wrap that has been sprayed with Pam. Now place your baking sheet with your shaped loaf on it (or your loaf pans) in a warm (65°-80° F) non-drafty place again. (The oven with the light on is fine—just remember to take it out before you preheat!) This rising could take from 1½ to 3 hours—mine usually takes about two at my normal room temperatures in the high 70's, but it depends on the temperature of your room and the character of the dough. Expect sourdoughs to rise much more

slowly than breads made with commercial yeasts. And again, keep in mind that cooler temperatures and longer rising times contribute to flavor and texture. You can do the same finger indentation test on the second rise that you did on the first.

When your unbaked loaf has risen to about 1½ times its original size, it's time to bake. Your oven has been preheated to 400° F. Beat an egg with a tablespoon of water and set it aside. Then, just before putting your bread into the oven, take a very sharp single-edged razor blade (like the razor knife I have on my website), dip the blade in water before each cut, and slowly and gently make cuts in the top of your loaf about ¼ to ½ inch deep. To keep from collapsing your risen loaf, be careful—sometimes I have to go over a cut two or three times rather than press down too hard and risk deflating the dough. Practice helps a lot! If your loaf is round, the traditional San Francisco way is to make two vertical slashes and two horizontal slashes in a tic-tac-toe pattern. If you have an oblong or oval, you can still slash it that way or just make one long cut lengthwise—be creative.

When the slashes are finished, gently brush your loaf of bread with the egg wash. I like the egg wash, but many bakers use a cornstarch and water glaze. Try that one too and see which one suits you better!

Now get your spray bottle of plain water and spray the loaves with a fine mist. Put your pan into the oven directly on your baking stone. You already have a bowl of water in the oven. As soon as you put your bread in the oven, put your hand sprayer on stream and spray the sides and floor of the oven with water. Do this about every minute or two during the first five or ten minutes of baking. Yeah, it's high maintenance, but believe me, it's worth it! (Don't spray the light bulb—it'll likely explode!) Combined with the water evaporating from the bowl, this spraying will reward you with a thick, chewy crust on your finished loaf of bread. The egg or cornstarch wash makes it look pretty by adding a nice shine and making it a brown to a beautiful color. If you want a thinner, less chewy crust, then leave off all the water in the oven. If you like softer crust, brushing with oil or butter before and after baking will do the trick.

After 10 minutes of baking, turn your oven down to 375° F. Your bread will take about 30 to 60 minutes to bake, depending upon your oven and the size of the loaves you have made. The most accurate way to know when it is done is to remove the bread from the oven, turn the loaf upside down, and insert an instant-read thermometer (like the one on my website) into the center—from the bottom, of course, so the hole won't mar the beauty of your bread. A reading of 200° to 210° F means your bread is done. Amazingly, an

instant-read thermometer like the one on my website is about twice as fast to give you the temp as a 'digital' one that requires a battery.

Put the loaf on a rack to cool and admire your creation. Try to resist cutting it right away if you can. Wait until it has cooled at least for about 30 minutes and always use a good sharp serrated knife to slice it. Check out the fabulous aluminum-handled bread knives on my website— they're the best I've ever used and the prices are incredibly reasonable for the value you get.

Other Stuff

After you have baked a few loaves of your own San Francisco Sourdough Bread, you may want to experiment. Feel free to double the recipe or replace some of the white flour with whole wheat or rye. And be sure to add cheese, roasted garlic, or your favorite nuts, grains, herbs or spices just for fun!

Another thing I have tried is using plain all purpose unbleached flour instead of bread flour. I also use spelt, kamut, semolina and other ancient and exotic flours and whole grains and seeds and my family and I love the results. Be adventuresome and have fun with it!

If I'm not serving or giving my bread on the day I bake it, as soon as it is perfectly cool, I wrap it in an air-tight package and freeze it. As long as there's very little air in the package with your bread, you won't be able to tell the difference when you thaw it and eat it. You can slice it before you freeze it so you can take it out one or two slices at a time, or you can wait until you're ready to serve. The heavy-duty long 'bread-shaped' plastic bags for baguettes and multiple loaves on my website are very affordable and perfect for storing on the counter or in the freezer. Users tell me that they are so thick, they are reusable.

Sourdough is STICKY! Be sure to put all your tools in cold water straight away to soak. If you do, cleanup is a breeze later with just a vegetable brush.

If you want bigger holes in your bread, add more water or less flour to make a wetter dough and try using some all-purpose flour in place of part of the high protein bread flour.

Don't put any commercial yeast in your dough. It will totally change the taste and texture of your bread.

Some bakers say that to enhance the flavor of sourdough you should add about a tablespoon or two of plain rye flour to the dough for each loaf. And remember that longer, slower, cooler proofings and risings (even overnight in the fridge!) are guaranteed to contribute heavily to that wonderful sourdough flavor.

If you're making sourdough in your bread machine, be sure to go to the recipes page on my website and read Joe Wagner's Sourdough in the Bread Machine Research Project. It's a fun read, but more important, it's a fabulous 'how-to' for machines. There's also a recipe page for the basic recipe for San Francisco Sourdough Bread in the Bread Machine.

If you have a problem with your free-form loaves spreading out more than rising up, add more flour to the dough. If you have used A/P flour, substituting all or part with higher protein bread flour will help too. Also, you can use a bread form, like the Chicago Metallic double baguette form or the Rada Unglazed Stoneware Loaf Pan on the website.

To convert the US-centric measurements in this booklet to metric, go to this site—it will do all the work for you!
<http://www.gourmetsleuth.com/conversions.htm>

Happy Breadmaking!

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