

Flour, Water, Patience: Your First Sourdough

A Friendly Step-by-Step Guide to Baking Real Bread at Home, No Experience Required

By AI eBook Suite (sample)

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What Sourdough Really Is (and Why It's Easier Than You Think)

Welcome. If you've ever looked at a sourdough loaf and thought, "That's for people who know things," this chapter is for you. Sourdough is one of the oldest ways of making bread, and it has only a few moving parts. Once you understand them, the rest is practice.

What Sourdough Actually Is

Sourdough is bread that rises with a **starter** instead of packaged yeast. A starter is a living mix of flour and water that has been colonized by two kinds of microscopic helpers:

- **Wild yeast** eats the natural sugars in flour and releases carbon dioxide gas. The gas gets trapped in the dough and makes it rise.
- **Lactic acid bacteria** also feed on the flour. They produce acids, mainly lactic acid (the same kind found in yogurt) and a little acetic acid (the tang in vinegar). These acids give sourdough its tangy flavor.

These microbes are already in your flour and kitchen. You don't buy them or catch them from the air by magic. You give them food and water, and they move in.

How It Differs From Yeasted Bread

Regular bread uses commercial yeast, a single fast-acting strain that raises dough in an hour or two. It is reliable and convenient, and there's nothing wrong with it.

Sourdough is slower and more complex. The wild yeast works gently, and the bacteria add acids while it does. That longer fermentation gives you:

- A deeper, tangier flavor
- A chewy crumb (the **crumb** is the inside of the bread and its pattern of holes)
- Bread that stays fresh a little longer, thanks to the acidity

The ingredient list is short, and the biggest difference is time.

Myths Worth Letting Go Of

"Sourdough is difficult." It's patient, not difficult. Most of the work is waiting, and the hands-on time is short.

"You need fancy equipment." You don't. A kitchen scale, a jar, a bowl, and a pot with a lid will get you a beautiful loaf.

"You need a famous, hundred-year-old starter." You don't. A starter you make yourself from flour and water works just as well. Age is not a magic ingredient.

"It has to be very sour." Not true. Sourness depends on your flour, your timing, and your kitchen temperature. You can steer it, and we'll cover how in later chapters.

"Mistakes ruin everything." A loaf that misses the mark is still usually tasty toast. Every bake teaches you something.

The Three Ingredients

A basic sourdough loaf needs only:

1. **Flour.** Bread flour or unbleached all-purpose flour both work well. Bread flour has more protein, which helps the dough hold its shape.
2. **Water.** Plain drinking water is fine. Room temperature or slightly warm is best.

3. **Salt.** It adds flavor and controls how fast the dough ferments. Use fine sea salt or table salt without additives if you can.

Add your starter and that's the whole recipe. The ratio of water to flour is called **hydration**, written as a percentage by weight. A dough made with 100 g flour and 70 g water is 70% hydration. You'll meet this idea in the recipe in Chapter 3.

The Big Idea: Time and Temperature Do the Work

This is the idea that makes sourdough easier than it looks. You are not forcing the dough to do anything. You are setting up conditions and letting fermentation happen.

- **Warmer** kitchens speed fermentation up.
- **Cooler** kitchens slow it down.
- **More time** generally means more flavor and more tang.

A cozy kitchen around 75°F (24°C) is a comfortable target for most bakers. If your home is cooler, things simply take longer. If it's warmer, they move faster. Throughout this book, I'll teach you to watch the dough, not just the clock, because the dough is what actually tells you when it's ready.

Your Equipment Checklist

You can start with very little.

Essentials

- ■ **Kitchen scale.** Weighing flour is far more accurate than scooping it with cups. I'll give cup measures where possible, but grams are the reliable choice.
- ■ **Clear jar** with a loose lid (about 1 quart or 1 liter) for your starter
- ■ **Large mixing bowl**
- ■ **Spatula or sturdy spoon**
- ■ **Dutch oven.** This is a heavy pot with a lid that traps steam around the loaf, giving you a crisp crust and a strong rise in a home oven. Any heavy, oven-safe lidded pot of about 5 quarts (4.7 liters) works.
- ■ **Clean kitchen towel**

Nice-to-haves (add later, if you like)

- ■ Bench scraper for handling sticky dough
- ■ **Banneton** (a proofing basket) or a bowl lined with a towel
- ■ Razor blade or **lame** (a handle for a blade) for scoring
- ■ Digital thermometer
- ■ Wire cooling rack
- ■ Shower cap or reusable cover for the bowl

If the essentials fit your budget, start there. Chapter 4 shows you how to improvise the rest.

A Map of the Whole Process

Here is the journey from starter to loaf. Each stage gets its own detailed instructions later.

Stage	What happens	Where you'll learn it
1. Make a starter	Flour and water ferment into a bubbly culture over about a week	Chapter 2
2. Feed the starter	You refresh it so it's active and ready	Chapter 2
3. Mix and autolyse	Flour and water rest together so the flour soaks up water and gluten starts to form	Chapter 3
4. Bulk fermentation	The dough's first long rise, with gentle stretch and folds to build strength	Chapter 3
5. Shaping	You form the dough into a tight round or oval	Chapter 4
6. Proofing	The shaped loaf takes its final rise, often overnight in the fridge	Chapter 4
7. Scoring and baking	You cut the surface, then bake it in a hot Dutch oven	Chapter 4
8. Cool and slice	The crumb finishes setting as the loaf cools	Chapter 4
9. Troubleshoot	You work out what to adjust next time	Chapter 5

A single loaf takes a day or so from start to finish, but most of that is waiting. The active work adds up to perhaps half an hour or so, spread across the day.

What to Expect From Yourself

Your first loaf may not be Instagram-ready. That's normal and fine. Your goal for now is to understand each stage well enough that you can see what's happening and adjust.

Key Takeaways

- Sourdough rises through wild yeast and tangy-making bacteria living in a starter, not through commercial yeast.
- The ingredients are only flour, water, salt, and starter.
- Time and temperature do most of the work, so patience matters more than skill.
- You don't need special equipment or an old "heirloom" starter.

- The process runs in a logical order: starter, mix, bulk fermentation, shape, proof, score, bake, cool.

Your Action Step

Look at the essentials checklist and note what you already own. Then buy or borrow a kitchen scale and a clear jar, and pick up a bag of unbleached flour. In Chapter 2, you'll mix your first starter, and the microbes will take it from there.

Creating and Keeping Your Starter

You have a scale, a jar, and a bag of flour. Now you'll make your starter. It takes about a week, but you'll spend only a few minutes a day on it. The microbes do the rest.

Set Up for Success

Flour. Whole wheat or whole rye flour gives the microbes the most to eat, so it's the best choice for the first few days. After that, you can feed with unbleached all-purpose or bread flour. Avoid bleached flour if you can.

Water. Most tap water is fine. If yours smells strongly of chlorine, let it sit out for an hour, or use filtered water. Aim for lukewarm, about 80°F (27°C).

Jar. Choose a clear glass jar of about 1 quart (1 liter). Clear glass lets you see bubbles. Rest the lid on top without tightening it, because the gas needs room to escape. Put a rubber band around the jar at the starter's level after each feeding, so you can see how far it rises.

Temperature. Starters like 75–78°F (24–26°C). In a cool kitchen, try the top of the refrigerator or an oven with only the light on. Check that it stays below 85°F (29°C), and put a note on the oven door so nobody preheats it by accident.

Your Day-by-Day Plan

All amounts are by weight. For the first few days, use **whole wheat flour**.

Day	What to do	What you may see
1	Stir 50 g flour (about 6 tablespoons) and 50 g water (about 3½ tablespoons) in the jar. Cover loosely.	Thick paste. Nothing happening yet.
2	Stir. No feeding needed.	A few bubbles, maybe a little rise.
3	Keep 50 g of starter (about 3 tablespoons) and discard the rest. Add 50 g flour and 50 g water. Stir.	Bubbles, or a quiet stretch. Both are normal.
4	Repeat Day 3.	The smell may change.
5	Repeat, and switch to unbleached all-purpose or bread flour if you like.	More consistent bubbles and rise.
6	Repeat, feeding in the morning and again in the evening if it's active.	Rising and falling in a pattern.
7	Repeat. Test for readiness (below).	A bubbly, airy, pleasant-smelling starter.

If it isn't ready on Day 7, don't worry. Some starters need 10 to 14 days, especially in a cool kitchen. Keep feeding and be patient.

What's Normal and What's Not

Normal:

- Bubbles of all sizes, and a domed or frothy top
- Early activity on Day 2 or 3, followed by a quiet spell. Different microbes take turns early on, and the ones that make sourdough settle in afterward.
- Smells that start funky (a little cheesy, sharp, or like nail polish remover) and mellow into yeasty, tangy, or yogurt-like
- A gray or brownish liquid on top, called **hooch**. It means the starter is hungry. Stir it in or pour it off, then feed.

Not normal:

- Fuzzy spots, or green, black, or white patches

- Pink or orange streaks

- A rotten smell that doesn't improve

If you see any of these, throw the starter out and start again. You've lost very little, and the second try usually goes smoothly.

How to Feed a Starter

Feeding means giving the microbes fresh flour and water. The standard ratio is **1:1:1** by weight: equal parts starter, flour, and water. For example, 50 g starter + 50 g flour + 50 g water. This makes a thick, pourable batter, roughly 100% hydration, which suits the recipe in Chapter 3.

1. Weigh the jar on your scale and zero it out.

2. Remove all but 50 g of starter.

3. Add 50 g flour and 50 g water.

4. Stir until smooth, scrape down the sides, and add the rubber band.

5. Cover loosely and note the time in your log.

Is It Ready? Three Signs

1. **It rises.** A ready starter doubles in size within 4 to 8 hours after a feeding at room temperature.
2. **It's full of bubbles.** You'll see them through the glass and on top. The texture looks airy, like a thick batter.
3. **It floats.** Drop a spoonful into a glass of water. If it floats, it's gassy and ready.

The **float test** is a handy check, but it isn't perfect. A starter that has already peaked and begun to fall can sink even though it's healthy. Use the rise and the bubbles as your main guides and the float test as a backup.

Keeping Your Starter Going

Countertop routine. If you bake often, keep the starter out and feed it once a day, or twice in a warm kitchen. It stays lively and ready to use.

Refrigerator routine. If you bake weekly or less, store it in the fridge. The cold makes it nearly dormant.

- Feed it once a week. Let it sit out for an hour or two, then return it to the fridge.
- A day or two before baking, take it out and feed it at room temperature until it reliably doubles.

Reviving a neglected starter. A starter that has sat for weeks, with hooch on top, is rarely dead. Pour off the liquid, scoop out a spoonful from the middle, and discard the rest. Feed that spoonful 1:1:1. Repeat twice a day for two or three days, until it's bubbly again. Only fuzzy mold or pink streaks mean it's time to start over.

What to Do With Discard

Discard is the starter you remove before feeding. It isn't waste, but it can pile up. Here are your options:

- Stir it into pancakes, waffles, or crackers.
- Keep a small jar of it in the fridge for baking.

- Throw it in the compost or trash. Don't pour large amounts down the drain, where it can clog pipes.

To make less discard, feed smaller amounts, such as 20 g each of starter, flour, and water. Just keep the ratio 1:1:1.

Feeding Log

Copy this into a notebook and fill it in at each feeding.

	Starter	Flour	Water	Rise	
Date	Time	Weight	Time	Smell/notes	
	(g)	(g)	(g)	hrs	

Starter-Health Checklist

- ☐ Doubles within 4–8 hours of feeding
- ☐ Bubbles throughout, not just on top

- ■ Smells pleasantly tangy, yeasty, or like yogurt

- ■ Passes the float test (or clearly rises and falls on schedule)

- ■ Shows no fuzzy mold or pink or orange streaks

- ■ Has been fed on schedule

Key Takeaways

- A starter forms from flour and water over about a week. Use whole-grain flour at first for a stronger start.
- Feed at a 1:1:1 ratio by weight, and keep the starter warm, around 75–78°F (24–26°C).
- Look for doubling, bubbles, and a floating spoonful before baking.
- Hooch is just hunger. Fuzzy mold or pink streaks mean starting over.

- Keep it on the counter if you bake often, or in the fridge with weekly feedings if you don't.

Your Action Step

Mix your Day 1 starter today, and write the time on your log. Put a reminder in your phone for tomorrow. In Chapter 3, you'll use your active starter to bake your first loaf.

Your Reliable First Loaf and a Weekly Baking Schedule

You have an active starter, so it's time to bake. This chapter gives you one recipe, two schedules, and a weekly rhythm. Along the way, you'll learn to read the dough, which matters more than watching the clock.

The Recipe: One Everyday Loaf

This makes one loaf at about 73% hydration (counting the water and flour in your starter). That is moist enough for an open crumb, but still manageable for a beginner.

Ingredient	Weight	Approximate volume
Bread flour	500 g	4 cups
Water, about 80°F (27°C)	350 g	1½ cups minus 2 tablespoons
Active starter	100 g	½ cup
Fine salt	10 g	about 2 teaspoons

Cups are only a rough guide, because flour packs differently each time you scoop. Trust the scale.

Step by Step

1. **Feed your starter 4 to 6 hours ahead.** Use it when it's bubbly and domed, at or just past its peak. A spoonful should float.
2. **Autolyse.** In a large bowl, stir the flour and water until no dry flour remains. Cover and rest for 30 to 60 minutes. The flour soaks up water and the gluten begins to form on its own.
3. **Add starter and salt.** Spread the starter over the dough and sprinkle the salt on top. Wet your hand and squeeze and pinch the dough for 2 to 3 minutes, until everything is blended. It will look shaggy. That's fine.
4. **Start bulk fermentation.** Cover the bowl, or move the dough to a clear, straight-sided container so you can see its rise. The dough should sit at about 75–78°F (24–26°C).

Do four sets of stretch and folds, spaced 30 minutes apart:

- Wet your hand so the dough doesn't stick.
- Grab one edge, gently pull it up until it resists, and fold it over the center.

- Turn the bowl a quarter turn and repeat. Do four pulls in all.

6. **Let it rest** after the fourth set, untouched, until it passes the checks below. Bulk fermentation usually totals 4 to 6 hours in a 75°F (24°C) kitchen.

When the dough is ready, you'll shape it in Chapter 4.

Reading the Dough

The clock gives you an estimate. The dough gives you the answer. Look for these signs:

- **Volume.** The dough has grown by about 50%, not doubled. A rubber band or piece of tape on the container helps you track this.
- **Surface.** It looks domed and slightly puffy, with a few bubbles showing. Bubbles along the edges are a good sign.
- **Jiggle.** When you shake the container, the dough wobbles like a soft gelatin dessert.

- **Feel.** It's airy, smooth, and less sticky than at the start. It pulls away from the container's sides.
- **Edges.** When you wet a finger and pull at the dough, it stretches without tearing right away.

Underfermented dough looks dense, tight, and heavy, with few bubbles. Overfermented dough looks flat, very wet, and loose, and it may smell sharply sour. When in doubt, wait another 20 to 30 minutes and look again. Chapter 5 shows what each mistake does to the finished loaf.

Schedule 1: Overnight Cold-Proof Plan

This is the best choice for flavor and flexibility. You shape in the evening and bake the next morning. The cold slows the final rise, which also improves your control.

Time	Step
8:00 am	Feed starter
12:00 pm	Mix flour and water (autolyse)
12:45 pm	Add starter and salt
1:15, 1:45, 2:15, 2:45 pm	Four sets of stretch and folds

3:00 to 6:00 pm	Rest until the dough passes the readiness checks
6:00 pm	Shape and place in a banneton or bowl
6:30 pm	Cover and refrigerate
Next day	Bake straight from the fridge, anytime from 8 to 16 hours later

Schedule 2: Same-Day Plan

Use this if you'd like fresh bread for dinner.

Time	Step
7:00 am	Feed starter
11:00 am	Autolyse
11:45 am	Add starter and salt
12:15 to 1:45 pm	Four sets of stretch and folds, 30 minutes apart
2:00 to 4:00 pm	Rest until ready
4:15 pm	Shape

4:45 to 6:00 pm	Final proof at room temperature, until the dough looks puffy and springs back slowly when poked
6:00 pm	Preheat the oven and bake (Chapter 4)

A Weekly Rhythm

You don't need to bake daily. One loaf a week keeps both your starter and your skills in practice.

Day	Task
Friday evening	Take the starter out of the fridge and feed it
Saturday morning	Feed again, then follow the overnight plan
Sunday morning	Bake the loaf
Sunday afternoon	Feed the starter, let it sit out for an hour or two, then return it to the fridge

Shift the days to suit your life. The pattern stays the same: wake the starter, make the dough, proof it cold, bake.

Pre-Bake Checklist

Before you bake (the details come in Chapter 4), confirm that:

- ■ The dough grew about 50% and jiggles when shaken
- ■ The shaped loaf is puffy and springs back slowly when gently poked
- ■ Your Dutch oven and lid are ready, with a clear oven rack
- ■ You have a blade or sharp knife for scoring
- ■ You have parchment paper and oven mitts nearby
- ■ You've cleared a cooling spot for the finished loaf

Adjusting for Your Kitchen

Warm kitchen (above 80°F / 27°C). Fermentation speeds up quickly.

- Start checking the dough after 3 hours.

- Use cooler water, around 70°F (21°C).

- Shorten the autolyse, or shape earlier.

Cool kitchen (below 70°F / 21°C). Everything slows down.

- Use warm water, about 85–90°F (29–32°C).

- Put the dough in the oven with only the light on, or in a spot near a warm appliance.

- Expect bulk to take 6 to 8 hours or more.

Key Takeaways

- One reliable recipe: 500 g flour, 350 g water, 100 g active starter, and 10 g salt.

- The process runs autolyse, mix, stretch and folds, bulk fermentation.

- Judge the dough by its rise, bubbles, jiggle, and feel, not just the clock.

- Choose the overnight plan for flavor and flexibility, or the same-day plan for speed.

- Warm kitchens speed things up, and cool ones slow them down, so adjust your water temperature and timing.

Your Action Step

Pick your baking day this week and mark it on your calendar, then work backward to schedule the starter feedings. Before then, make sure your starter doubles within 4 to 8 hours of a feeding. When your dough is ready, Chapter 4 will show you how to shape, score, and bake it.

Shaping, Scoring, and Baking in a Home Oven

Your dough has finished bulk fermentation and is ready for its next stage. The next steps are a bit like origami: a few simple folds, one quick cut, and a hot oven. Take them slowly, and remember that sticky dough is normal.

Set Up Your Workspace

Gather these before you touch the dough:

- A clean counter, **lightly** dusted with flour
- A bench scraper (or a wide spatula)
- A small bowl of water for wetting your hands
- Your banneton or proofing bowl, prepared as described below

Use as little flour as you can. Too much on the counter makes the dough slide instead of grip, and a little stickiness helps you build tension.

Pre-Shaping

Pre-shaping is a loose first round that organizes the dough before the final shaping.

1. Use the scraper to ease the dough onto the floured counter. Fold any floury sides back in.
2. With the scraper and a wet hand, fold the edges toward the center, working all the way around.
3. Flip the dough so the smooth side faces up. Cup your hands around it and drag it gently toward you, turning it a bit each time, until it forms a loose round.
4. Cover with a towel and rest for **20 to 30 minutes**. The dough will relax and spread a little. This is the **bench rest**.

Final Shaping: The Round Loaf

Shaping gives the loaf a tight outer skin, which helps it hold its height in the oven.

1. Flour the top of the rested dough lightly, then flip it so the floured side is down.
2. Fold the bottom third up to the center, then the top third down. Fold the left and right sides in toward the middle, like closing an envelope.
3. Flip the dough seam-side down.
4. Cup your hands around the back and drag the dough toward you. The bottom should grip the counter and tighten the surface. Rotate a quarter turn and repeat 3 or 4 times.
5. Stop when the top looks smooth and taut. If it tears, you've gone too far. Rest it, and be gentler next time.

A Simple Oval

For an oval loaf, follow steps 1 and 2 above, but then roll the dough up from the top edge, like a small towel, and pinch the seam closed. Roll it seam-side down and tuck the ends under slightly. Use an oval banneton or a long, narrow bowl.

Preparing the Banneton or Bowl

A sticking loaf is the most common frustration, and flour solves it.

- **Best coating:** Mix equal parts white rice flour and bread flour, or use rice flour alone. Rice flour doesn't absorb water as easily, so it keeps the dough from sticking.
- Rub about 2 tablespoons (15 to 20 g) of the mix well into every surface, including the sides. Tap out the extra.
- **No banneton?** Line a bowl, about 8 to 9 inches (20 to 23 cm) wide, with a clean, thin cotton towel (not terry cloth). Flour the towel generously.

Place the shaped loaf in the basket **seam-side up**, with the smooth side against the bottom. Cover it with a towel, shower cap, or reusable cover.

Final Proof

Proofing is the loaf's last rise. For the overnight plan, refrigerate it for 8 to 16 hours. For the same-day plan, leave it at room temperature for 1 to 1½ hours.

Use the **poke test**. Flour a finger and press it about ½ inch (1 cm) into the dough. If the dent springs back slowly and only partway, it's ready. If it springs back immediately, wait longer. If it doesn't spring back at all, bake right away.

Preheat the Dutch Oven

1. Place the Dutch oven with its lid in the oven on a lower rack.
2. Heat to **475°F (245°C)** for a full 30 to 45 minutes. The pot must be thoroughly hot.

Meanwhile, cut a piece of parchment paper a little larger than your loaf.

Scoring

Scoring is the cut that controls where your loaf expands. Without a score, the loaf bursts in a random spot.

- **Blade:** A razor blade, a lame, or a very sharp serrated knife works. A dull blade drags and tears the dough.

- **Depth:** About $\frac{1}{4}$ to $\frac{1}{2}$ inch (0.5 to 1 cm).

- **Angle:** Hold the blade at about 30 to 45 degrees for a classic "ear" (the raised flap along the cut). Cut straight down for a flatter result.

- **Motion:** One quick, confident stroke. Hesitation drags the dough.

Cold dough, straight from the fridge, scores most cleanly. Easy patterns:

- A single long slash, slightly off-center
- A cross or tic-tac-toe pattern
- Three parallel diagonal cuts (for an oval)

Transfer and Bake

1. Lay the parchment over the banneton, then place a cutting board or flat plate on top. Flip everything over and lift off the basket. The loaf should now sit seam-side down on the parchment.

2. Score the loaf.

3. Wearing oven mitts, take the hot pot out and remove the lid. Pick up the parchment by its edges and lower the loaf into the pot. Trim any hanging paper.

4. Replace the lid and return the pot to the oven.

5. Lower the temperature to **450°F (230°C)**. Bake covered for **20 minutes**. The trapped steam keeps the crust soft so the loaf can rise.

6. Remove the lid. Bake for another **20 to 25 minutes**, until the crust is deep golden brown to dark mahogany.

Is it done? Look for a rich color, a hollow sound when you tap the bottom, and an internal temperature of **205–210°F (96–99°C)** if you have a thermometer. When unsure, bake a few more minutes. A darker crust brings more flavor.

No Dutch Oven? Use a Baking Sheet and Steam Tray

1. Place a baking sheet (or baking stone) on the middle rack and a sturdy metal pan, such as a roasting pan or cast-iron skillet, on the lowest rack. Preheat to 475°F (245°C) for 30 to 45 minutes.

2. Slide the loaf on its parchment onto the hot sheet.

3. Carefully pour about 1 cup (240 ml) of boiling water into the lower pan and shut the door quickly. The steam is very hot, so keep your face and arms back.

4. After 15 minutes, remove the steam pan with care, and lower the oven to 450°F (230°C).

5. Bake another 20 to 25 minutes, until deeply browned.

Expect slightly less rise than with a Dutch oven, but the crust will still be good.

Cooling, Slicing, and Storing

- **Cool completely**, on a rack if you have one, for at least 1 hour, and ideally 2. The crumb is still setting inside, and cutting early can make it seem gummy. You may hear the crust crackle as it cools. That's a good sign.
- **Slice** with a serrated bread knife, using a gentle sawing motion.

- **Store** the loaf cut-side down on a board for the first day, then in a paper bag or a clean towel for up to 2 or 3 days. Avoid the refrigerator, which dries bread out quickly.
- **Freeze** slices in a sealed bag for a few months. Toast them straight from the freezer.
- **Refresh** a day-old loaf by warming it in a 350°F (175°C) oven for 5 to 10 minutes.

Bake-Day Checklist

- ■ Banneton floured with a rice flour mix
- ■ Dutch oven preheated for at least 30 minutes
- ■ Parchment cut, blade ready, mitts on
- ■ Loaf scored with one confident stroke
- ■ Lid on for 20 minutes, off for 20 to 25

- ■ Cooled for at least 1 hour before slicing

Key Takeaways

- Pre-shape, rest 20 to 30 minutes, then do the final shaping, using wet hands and a bench scraper to manage stickiness.
- Rice flour in the banneton or towel prevents sticking.
- Score $\frac{1}{4}$ to $\frac{1}{2}$ inch (0.5 to 1 cm) deep with a sharp blade and one quick motion.
- Bake covered at 450°F (230°C) for 20 minutes, then uncovered for 20 to 25 minutes.
- Let the loaf cool for at least an hour before you cut it.

Your Action Step

Before your next bake day, rehearse the shaping motions on a damp dish towel or a lump of play dough, and practice scoring on a piece of paper. Then bake your loaf and take notes on how it looked, how it tasted, and what surprised you. In Chapter 5, you'll use those notes to find out why a loaf turned out the way it did.

Troubleshooting Common Problems and Building Your Skills

You've baked a loaf, and now you probably have questions. Why was the crumb tight? Why did the bottom brown faster than the top? Good. Those questions mean you're paying attention, and that's how bakers improve.

Every sourdough problem comes back to a few causes: **fermentation time, temperature, starter strength, shaping tension, and baking heat**. Once you know where to look, most problems are easy to fix.

Start With the Clues

Before you change anything, check your notes from the bake. Ask yourself:

- Was my starter active and at or near its peak?
- How warm was my kitchen?
- Did the dough grow about 50%, jiggle, and feel airy before shaping?

- Did the proofed loaf pass the poke test?

- Was the Dutch oven thoroughly hot?

Symptom-to-Solution Table: The Loaf

Symptom	Likely causes	Simple fixes
Dense, tight crumb with few holes	Underfermented dough. Weak or sluggish starter. Cool kitchen.	Let bulk run longer, until the dough grows about 50% and jiggles. Make sure your starter doubles before using it. Use warmer water.
Flat loaf with little rise	Overfermented or overproofed dough. Loose shaping. Starter used long after its peak.	Shorten bulk or proof. Shape with more tension. Use the starter at or just past its peak.
Gummy, damp crumb	Cut too soon. Underbaked. Underfermented dough.	Cool at least 1 hour, ideally 2. Bake a few minutes longer, until the inside reaches 205–210°F (96–99°C).

Pale crust	Oven not hot enough. Pot not fully preheated. Baked uncovered too briefly.	Preheat the pot a full 30 to 45 minutes. Check your oven's accuracy. Bake uncovered until deep golden or mahogany.
Crust too hard or thick	Baked too long. Lid left on too long. Stored in a way that dried it out.	Shorten the uncovered bake a little. Cool, then wrap the loaf in a towel. Don't refrigerate it.
Loaf spreads out instead of rising	Overproofed dough. Weak shaping tension. Too much water for your flour.	Proof for less time. Practice tightening the surface when shaping. Reduce water by 15 to 20 g (1 to 1½ tablespoons).
Too sour	Very long or warm fermentation. Very long cold proof. Starter left hungry for a long time.	Shorten the fridge time. Use a starter at its peak. Feed more regularly. Keep dough a bit cooler.
Too mild	Short fermentation. Very young starter.	Extend the cold proof. Replace 50 g of the flour with whole wheat. Use a mature, regularly fed starter.

Treat the table as a list of possibilities, not a verdict. Several causes can produce the same symptom, so look for the one that matches your notes.

Troubleshooting Your Starter

Sluggish starter. If it is slow to rise or barely bubbles, check these first:

- **Temperature.** Move it somewhere warmer, around 75–78°F (24–26°C).
- **Flour.** Feed it some whole wheat or rye flour for a few days.
- **Chlorinated water.** Switch to filtered water, or let tap water sit out for an hour.
- **Inconsistent feeding.** Feed it on a regular schedule, twice a day if it's in a warm kitchen.

Smells off. A sharp, nail-polish-remover smell means the starter is hungry, so feed it. A sour, yogurt-like smell is healthy. A rotten smell, fuzzy mold, or pink or orange streaks mean you should start over, as described in Chapter 2.

Keep a Baking Journal

The most powerful troubleshooting tool is a notebook. Without notes, you'll forget what you did. With them, patterns show up quickly.

The rule is to **change one variable at a time**. If you lengthen the bulk, switch flours, and change the oven temperature all at once, you won't know which change helped. Pick one thing, adjust it, and compare results.

Copy this table into your notebook for each bake:

Item	Your notes
Date and kitchen temperature	
Starter: when fed, how active	
Flour, water, starter, salt amounts	
Autolyse length	
Bulk start and end times, and how the dough looked	
Proof: fridge or counter, and how long	
Bake: oven temperature, times	
Crust, crumb, and flavor	
One change to try next time	

Add a quick note on taste, too. "Slightly too sour" is as useful as any measurement.

Where to Go Next

Once your basic loaf comes out reliably, try one of these upgrades. Change only one at a time.

- **Add whole-grain flour.** Replace 50 g (about ½ cup) of the bread flour with whole wheat or rye. Whole grains absorb more water, so add 10 to 15 g (about 2 teaspoons) extra water if the dough feels stiff. Expect a nuttier flavor and a slightly denser crumb.
- **Try add-ins.** Seeds, cooked grains, nuts, cheese, olives, or dried fruit are all good candidates. Start with about 100 g total. Fold them in during the second or third set of stretch and folds, once the dough has some strength. Wet ingredients like olives should be patted dry.
- **Raise the hydration.** Add 15 to 25 g (1 to 1½ tablespoons) more water. Wetter dough is stickier and slacker, and it often gives a more open crumb. Wet hands and a bench scraper will be your best friends. If the loaf spreads out, drop back to your previous hydration and build up more gradually.

Your Progress Checklist

- ☒ My starter reliably doubles within 4 to 8 hours of feeding
- ☒ I can judge bulk fermentation by volume, bubbles, and jiggle, not only by the clock

- ■ I can shape a loaf with a taut, smooth surface

- ■ I preheat my Dutch oven thoroughly and score with a confident stroke

- ■ I let the loaf cool before slicing

- ■ I write down what I did and what happened

- ■ I change one variable at a time

- ■ I've shared at least one loaf with someone

A Last Word

You started this book wondering whether sourdough was for people like you. It is. You now know what's happening in the jar and in the bowl, and why a loaf turns out the way it does. That knowledge will carry you far beyond any single recipe.

Some bakes will be beautiful, and some will be humbling. Both teach you something, and both make decent toast. Keep your starter fed, keep your notes, and keep baking.

Key Takeaways

- Most problems trace back to fermentation time, temperature, starter strength, shaping tension, or oven heat.
- Use the symptom table to match what you see to likely causes, then pick one fix.
- A sluggish starter usually needs warmth, whole-grain flour, or more consistent feeding.
- A baking journal lets you learn from every loaf.
- Change one variable at a time, then try whole grains, add-ins, and higher hydration.

Your Action Step

Bake your next loaf with your journal open. Before you start, write down one thing you want to change, such as a slightly longer bulk or a hotter preheat. Afterward, record the result, and pick your next single change. Repeat, and you'll be baking with real confidence before you know it.