CHAPTER 1

Chapter 1: The Drain That Spins and Won't Drop

It was a Sunday evening. The pot roast dishes were stacked beside the sink, the gravy pan was soaking, and the water in the basin had stopped going down. It turned in a lazy circle, a little whirlpool with bits of onion riding the edge. It spun, and it spun, and it did not drop.

If you live in an older house, you know that swirl. You have probably stood over it with a dish towel on your shoulder, doing the arithmetic. Is this a bottle-from-the-store problem, or a stranger-in-a-van problem? And how much will the stranger cost at this hour?

This book starts right there, at the edge of that basin.

The slow swirl every older house knows

A slow drain rarely fails all at once. It warns you for weeks. The shower water rises around your ankles a little higher each morning. The bathroom sink takes a minute longer to empty after you shave. Then one evening, the swirl stops moving at all.

Most people answer that warning the same way. They pour something in, it seems to work, and the problem comes back.

> **Case:** On the AnandTech Forums, a homeowner described a shower that would not drain. Baking soda and vinegar brought only temporary relief, and the standing water came back about a week later. It stayed gone only after the hair clog was physically pulled out with a cheap barbed plastic tool.

That story repeats in forum after forum. Another homeowner in the same community tried baking soda and vinegar on a clogged bathroom sink "with no luck." Other members pointed them to barbed plastic drain strips and a hand-cranked auger instead. A third had already tried the fizz, a liquid drain cleaner and a small snake. The advice he got was plain: put a bucket under the sink, loosen both P-trap connections, and clean the trap out by hand.

Notice what those fixes have in common. None of them came in a bottle with a skull on it. None of them cost much. Every one of them went to where the clog was sitting.

Our own house was built in the early 1950s, with cast iron under the floor. The first winter we lived there, the kitchen sink slowed to a crawl. I poured in half a jug of store cleaner and felt clever for about nine days. When I finally opened the trap, I found a gray plug of grease and rice that no liquid had ever touched.

That plug taught me the idea this whole book rests on.

> **The Arm's-Length Rule:** when one fixture is slow and the rest of the house drains fine, the clog is almost always within reach of your hands. When every drain slows together, it is out of your reach, and that is a job for someone else.

Why it always shows up at the worst hour

Clogs keep poor hours. They show up after a big family dinner, on a holiday weekend, or at nine o'clock on a Sunday night. There is a reason for that.

A clog builds slowly out of ordinary living: grease from the skillet, soap from the shower, hair from every head in the house. It narrows the pipe a little at a time. Then a heavy load of water and scraps arrives all at once, and the narrowed pipe can't keep up. Heavy loads come when you cook the most and have the most people under your roof.

Those are holidays. The American Public Works Association has warned of a growing "fatberg" problem around Thanksgiving, when Americans pour holiday fats, oils and grease down the drain[12]. Roto-Rooter's spokesperson Paul Abrams put the kitchen side of it bluntly:

> "People continue to peel potatoes over the sink and then push the peels down into the garbage disposal." (Wikipedia, citing Roto-Rooter)

So the clog doesn't pick the worst hour on purpose. The worst hour is simply when your pipes carry the most. That is also when plumbers are busiest and after-hours rates apply.

Here is what the daytime price looks like before any holiday surcharge. We will take these numbers apart properly in Chapter 3.



Typical 2026 professional drain costs

> **$246** is the average price of professional drain cleaning in 2026 cost guides, with a typical range of $147 to $352[24, 5].

For a single slow sink, that is a lot of money for a clog that, most nights, sits a few inches below the drain opening.

What this book will and won't ask of you

I want to be straight with you about the deal, because you have been sold enough miracles.

What I will ask

I will ask you to **look before you pour**. A clog made of grease needs a different answer than one made of hair or hard-water crust. Pouring the wrong thing wastes your money and your evening.

I will ask you to keep a few old-fashioned boxes under the sink, along with a plunger, a plastic hair strip and a bucket. The whole kit costs less than one trip fee.

I will ask you to be patient. Some of the best fixes in this book work while you sleep.

I will also ask you to **know when to stop**. If every drain in the house backs up, or water comes up in the tub when you flush, you are past the Arm's-Length Rule. That is the moment to pick up the phone, and later chapters will tell you exactly what to say when you do.

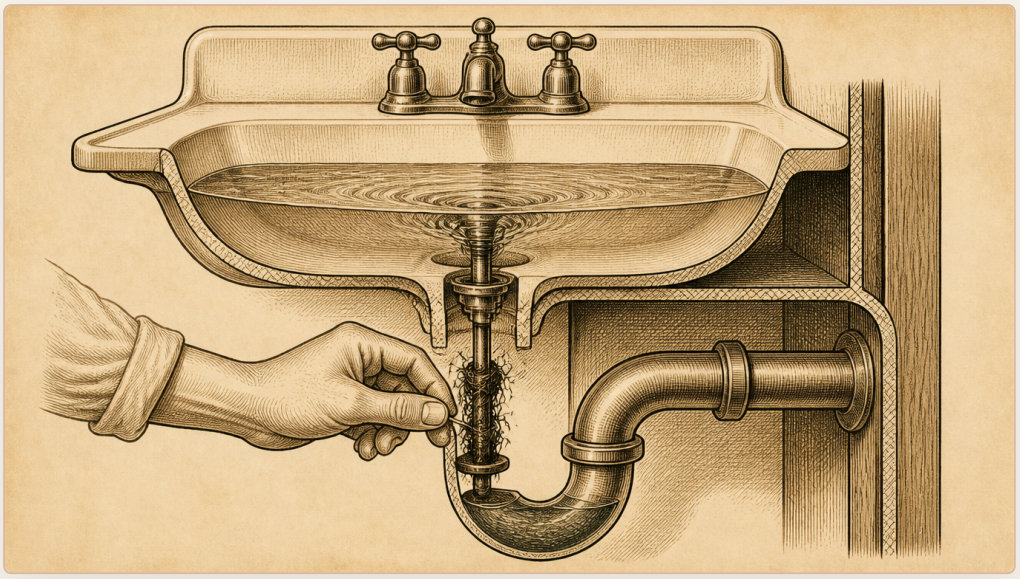
What I won't ask

I won't ask you to pour caustic crystals or acid drain cleaners into your old pipes. Those products usually contain strong acids like sulfuric or hydrochloric acid, or strong alkalis like lye. Swallowing them can cause severe burns, permanent tissue damage and death (National Capital Poison Center). Plumbers also warn that they can eat at older metal pipe, speeding up rust and leaks, and that the heat they give off can soften PVC over time (A&E Heating and Cooling; Coastal Plumbing Professionals, 2026). If you have a bottle like that under your sink tonight, leave it closed. We'll deal with it safely in Chapter 17.

I won't ask you to pour a pot of boiling water into every slow drain, either. Plastic drain pipe is typically rated to about 140°F. Boiling water is 212°F at sea level. Plumbers warn that doing this again and again can soften PVC, weaken glued joints and damage seals (Balkan Plumbing; Williams Plumbing & Drain). Hot water from the tap or a kettle that has cooled off the boil is a different matter, and Chapter 11 shows you how to judge it.

And I won't pretend the fizz is magic. When baking soda and vinegar meet, they turn into water, a mild salt and carbon dioxide gas. Once the bubbling stops, they have largely cancelled each other out[42]. Amanda Morris, a chemist at Virginia Tech, put it this way:

> "Once the fizzing stops, the two ingredients have essentially neutralized each other into a dilute salt solution with little cleaning ability left." (The Kitchn)



Several plumbing companies say the mix can help with minor clogs near the drain opening, but it does not remove the buildup behind a serious clog (A&A Plumbing, Heating, and Cooling; Dan's Drain Services). That is why this book uses the fizz for what it is good at and uses other tools for the rest. Chapter 7 shows exactly where that line falls.

The one promise: a clear line tonight

Here is my promise. If you have one slow sink, tub or shower, and the rest of the house drains normally, this book will give you a way to clear it tonight, with things that cost about a dollar and tools you can hold in one hand.

Here is what the promise does not cover. It does not cover a main sewer line, a collapsed pipe, or tree roots in the yard. Those jobs belong to a professional. I will tell you honestly when you have reached one.

The rest of it is ordinary knowledge. Our grandparents had it. They kept washing soda in the laundry room and a rag and a bucket under the sink. We lost that somewhere between the first TV ad for drain cleaner and today, and Chapter 2 tells that story.

Before you turn the page, do one thing.

- ✓ Walk to every sink, tub and shower in the house with a pencil and a scrap of paper.
- ✓ Run the cold tap for about half a minute at each one. Cold water keeps the test safe on any pipe.
- ✓ Watch the water. Does it drop straight down, or swirl and pool?
- ✓ Listen. Does a nearby toilet or drain gurgle while this one empties?
- ✓ Write down which fixtures are slow. One slow fixture points to the Arm's-Length Rule. Several at once is a warning worth circling.

That list is the first real diagnosis your house has had in years. You made it yourself, for free, in ten minutes.

KEY TAKEAWAYS

- **Check how many drains are slow before you buy anything.** One slow fixture is usually a clog within reach. Many slow drains together call for a professional.
- **Leave caustic crystals and acid cleaners on the shelf.** They endanger your skin, eyes and lungs, and they are hard on older metal pipe.
- **Don't pour boiling water into drains that may be plastic.** PVC is typically rated to about 140°F, far below the boiling point.
- **Treat the fizz as a helper, not a cure.** Baking soda and vinegar mostly cancel each other out once the bubbling stops.
- **Keep your slow-drain list.** You will use it to name your clog in Chapter 6.

You now know where most single-drain clogs live, and roughly what it costs to have a stranger fix one. But one question should bother you. If the bottle from the hardware store really works, why did your drain run clear for a week or two and then slow right back down? The answer says less about your pipes than about the people who sell the bottle.