

Leaky Faucet & Pipe Repair Guide

How to Identify and Fix Common Leaks
Before They Cause Serious Damage

FREE DIY GUIDE

This guide is provided as a free educational resource.
Always prioritize safety and consult a licensed professional for complex issues.

Disclaimer: This guide is for informational purposes only. The information provided does not constitute professional advice. Always follow local building codes and safety regulations.

Introduction

A dripping faucet or leaking pipe might seem like a minor annoyance, but even a small leak can waste thousands of gallons of water per year and lead to water damage, mold growth, and higher utility bills. This guide helps you identify the type of leak you're dealing with and walks you through the most common DIY repairs.

Identifying the Type of Leak

Faucet Leaks

- Dripping from the spout when the faucet is off - usually a worn washer, O-ring, or cartridge
- Leaking from the base of the faucet - typically a worn O-ring or corroded valve seat
- Leaking from the handle area - usually a loose packing nut or worn packing material

Pipe Leaks

- Dripping at pipe joints - loose connections or worn thread tape
- Pinhole leaks in copper pipes - corrosion from the inside out
- Leaks at supply line connections - worn washers or loose fittings
- Condensation (not actually a leak) - pipes sweating in humid conditions

Tools & Materials You'll Need

- Adjustable wrench and basin wrench
- Screwdrivers (flathead and Phillips)
- Replacement washers, O-rings, and cartridges (match your faucet brand)
- Plumber's tape (PTFE/Teflon tape)
- Pipe repair clamp or epoxy putty (for temporary pipe fixes)
- Bucket and towels
- Plumber's grease (silicone-based)
- Allen wrench set

Fixing a Dripping Compression Faucet

Compression faucets have two separate handles for hot and cold. They're common in older homes.

1. Turn off the water supply valves under the sink.
2. Open the faucet to release remaining water pressure.
3. Remove the decorative cap on the handle, then unscrew the handle screw.
4. Pull off the handle to expose the packing nut.
5. Use a wrench to unscrew the packing nut and pull out the stem.
6. Inspect the rubber washer at the bottom of the stem. If it's worn, flat, or cracked, replace it.
7. Also check the O-ring on the stem and replace if worn.
8. Apply a thin layer of plumber's grease to the new washer and O-ring.
9. Reassemble in reverse order: stem, packing nut, handle, screw, cap.
10. Turn on the water supply and test.

Fixing a Dripping Cartridge Faucet

Cartridge faucets (single or double handle) use a removable cartridge that controls water flow.

1. Turn off water supply and open the faucet.
2. Remove the handle (usually held by a screw under a decorative cap or set screw).
3. Remove the retaining clip or nut holding the cartridge in place.
4. Pull the cartridge straight out (you may need cartridge puller pliers).
5. Take the old cartridge to a hardware store to find an exact replacement.
6. Insert the new cartridge, making sure it's oriented correctly (hot/cold alignment).
7. Replace the retaining clip, handle, and decorative cap.
8. Turn on water and test.

Fixing a Leaking Pipe Joint

Leaks at threaded pipe joints are often caused by deteriorated thread tape or loose connections.

1. Turn off the water supply to the affected pipe.
2. Place a bucket under the joint to catch water.
3. Use two wrenches: one to hold the pipe, one to unscrew the fitting.

4. Clean the threads on both the pipe and fitting.
5. Wrap the male threads with 3-4 layers of plumber's tape, wrapping clockwise (in the direction of tightening).
6. Hand-tighten the fitting, then use a wrench for 1-2 additional turns.
7. Turn on the water and check for leaks. Tighten slightly if needed.

Temporary Pipe Leak Repairs

These methods buy you time until a permanent repair can be made.

Pipe Repair Clamp

1. Clean and dry the area around the leak.
2. Place the rubber gasket of the clamp over the leak.
3. Tighten the clamp bolts evenly until the leak stops.
4. This can last weeks or months but is NOT a permanent fix.

Epoxy Putty

1. Turn off the water and dry the pipe thoroughly.
2. Knead the two-part epoxy putty until it's a uniform color.
3. Press the putty firmly around the leak, extending 1 inch past the damaged area on all sides.
4. Allow to cure per manufacturer instructions (usually 1-2 hours).
5. Turn water back on slowly and check.

Prevention Tips

- Check under sinks monthly for signs of moisture or dripping
- Replace supply line hoses every 5-8 years (especially rubber/vinyl ones)
- Don't overtighten faucet handles - this wears out washers faster
- Insulate pipes in unheated areas to prevent freezing and bursting
- Know where your main water shutoff valve is before an emergency
- Address small leaks immediately - they only get worse over time

When to Call a Professional

While many minor plumbing issues can be handled as DIY projects, some situations require the expertise of a licensed plumber. Call a professional if you encounter any of the following:

- The leak is behind a wall, under a slab, or underground
- You see signs of water damage (stains, warping, mold) but can't find the source
- The leak involves your main water line or sewer line
- Pipe corrosion is widespread (multiple pinhole leaks)
- The faucet is old and replacement parts are unavailable
- You need to work with gas lines near the plumbing
- The repair requires soldering copper pipes
- Your home has galvanized steel pipes that need replacing
- Water pressure is unusually high (above 80 PSI) - this needs a pressure regulator

Why Hire a Licensed Plumber?

Licensed plumbers have the training, tools, and experience to diagnose problems accurately and make repairs that meet local building codes. Attempting complex repairs without proper knowledge can lead to water damage, health hazards, or code violations that cost far more to fix later.

A professional plumber can also provide preventive maintenance to help you avoid costly emergency repairs down the road. Regular inspections and maintenance are the best way to protect your home and your investment.