

OTTAWA PRO PLUMBING

Pipes & Leaks

Finding and fixing leaks, pipe materials, and hidden
water damage

13 Expert Answers from Construction Brain

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Q1

What is water hammer and how do I fix it?

Water hammer is that loud banging or knocking sound you hear in your pipes when you quickly shut off a faucet or when appliances like washing machines or dishwashers suddenly stop the water flow. This jarring noise occurs when fast-moving water is forced to stop abruptly, creating a pressure wave that reverberates through your plumbing system.

The sudden pressure change causes pipes to vibrate and bang against wall studs, floor joists, or other pipes. While annoying, water hammer can also damage pipe joints, fittings, and appliances over time if left unaddressed. The problem is particularly common in Ottawa homes with older plumbing systems or high water pressure from the municipal supply.

Common causes include loose pipe mounting brackets, missing or failed air chambers (small vertical pipes that act as shock absorbers), waterlogged pressure tanks, or excessively high water pressure. Modern homes should have water hammer arrestors - small devices that absorb the pressure shock - installed near appliances and fixtures that create sudden water stoppage.

Simple fixes you can try include checking that all pipes are properly secured with mounting straps, especially in basements and crawl spaces where they're accessible. You can also try draining your plumbing system by shutting off the main water valve and opening all faucets to restore air chambers, then turning the water back on. If your home has a pressure tank, it may need to be recharged with air.

However, **persistent water hammer often requires professional attention**. A licensed plumber can install proper water hammer arrestors, adjust water pressure regulators, or secure loose pipes within walls. In Ottawa's older neighborhoods, this issue frequently coincides with aging galvanized pipes that may benefit from upgrading to modern PEX or copper systems.

Don't ignore ongoing water hammer - the repeated pressure shocks can eventually cause pipe joints to fail, leading to costly water damage. For a proper diagnosis and permanent solution, consider having Ottawa Pro Plumbing assess your system and install appropriate water hammer prevention devices.

Q2

What should I do if a pipe bursts?

Shut off your main water valve immediately - this is located where the water line enters your home, typically in the basement near the front wall or by the water meter. Turn it clockwise to stop water flow and prevent flooding damage.

After stopping the water flow, turn off electricity to the affected area if there's any chance of water reaching electrical outlets or fixtures. Open faucets throughout your home to drain remaining water from the pipes, which reduces pressure and helps prevent additional bursts. If it's winter, this also helps prevent other pipes from freezing.

Document the damage immediately by taking photos for insurance purposes, then contact your insurance company to report the claim. Remove valuable items and furniture from the affected area if possible. In Ottawa's climate, burst pipes often happen during extreme cold snaps when pipes freeze and expand, so this is especially common in January and February.

Call a licensed plumber right away - burst pipes require immediate professional repair to prevent structural damage and mold growth. Don't attempt to repair the pipe yourself, as improper fixes can lead to bigger problems and insurance complications. We provide 24/7 emergency service throughout Ottawa because we know pipe bursts can't wait for business hours.

Prevention tip: Know where your main water shutoff is located before an emergency happens, and consider having your pipes inspected if your home is older or you've had freezing issues before. In Ottawa's harsh winters, keeping a small trickle of water running during extreme cold can prevent freezing in vulnerable pipes.

For immediate burst pipe repair in Ottawa, contact Ottawa Pro Plumbing's emergency line - we're available 24/7 and can typically respond within an hour to minimize water damage.

Q3

How do I find a hidden water leak?

Hidden water leaks can cause thousands in damage if not caught early, but there are several ways to detect them before they become major problems.

Start by checking your **water meter** - this is the most reliable method. Turn off all water in your home, then check if the meter is still moving. If it is, you have a leak somewhere in your system. Write down the meter reading, wait an hour without using any water, then check again. Any change indicates a leak.

Look for **visible signs** throughout your home. Water stains on ceilings or walls, especially if they're growing or changing color, often indicate leaks behind drywall. Check for **soft spots** in flooring, particularly around toilets, under sinks, and near water heaters. Musty odors or unexplained mold growth are also red flags. Don't forget to inspect your **toilet** - add food coloring to the tank and see if it appears in the bowl without flushing.

Outside your home, walk your property looking for unusually green or soggy patches of grass, which could indicate underground pipe leaks. Check your water heater, washing machine connections, and the area around your foundation. In Ottawa's freeze-thaw climate, foundation cracks can develop that allow water intrusion, which homeowners sometimes mistake for plumbing leaks.

Professional leak detection becomes necessary when you suspect a leak but can't locate it. Licensed plumbers use specialized equipment like electronic leak detectors, thermal imaging cameras, and acoustic listening devices to pinpoint leaks behind walls or underground without destructive digging. This typically costs \$200-\$400 in Ottawa but can save thousands in unnecessary damage.

Time is critical with hidden leaks - even small ones can cause significant structural damage and mold growth over time. If you've confirmed a leak exists but can't find it, or if you're seeing signs of water damage, contact a professional immediately. For urgent leak detection in Ottawa, Ottawa Pro Plumbing offers emergency service to help prevent costly water damage to your home.

Q4

How do I prevent frozen pipes in Ottawa?

Frozen pipes are a serious concern in Ottawa's harsh winters, where temperatures can drop below -20°C for extended periods. Prevention is much easier and cheaper than dealing with burst pipes and potential flooding.

Insulation is your first line of defense. Focus on pipes in unheated areas like basements, crawl spaces, garages, and exterior walls. Wrap exposed pipes with foam pipe insulation or heat tape, paying special attention to areas where pipes enter your home from outside. Even pipes in heated areas near exterior walls can freeze during extreme cold snaps that Ottawa experiences.

Keep water moving through your system during severe cold spells. Let faucets drip slightly overnight when temperatures drop below -15°C - moving water is much harder to freeze than standing water. Open cabinet doors under sinks to allow warm air to circulate around pipes, especially those on exterior walls.

Maintain consistent heating throughout your home, even when you're away. Don't drop your thermostat below 15°C, as the money saved on heating bills isn't worth the risk of thousands in water damage. For homes with basements, ensure your basement stays above freezing - many Ottawa homes have had pipes freeze in unheated basements during January and February cold snaps.

Disconnect and drain outdoor hoses before the first freeze, typically by late October in Ottawa. Shut off interior valves to outdoor spigots and drain the lines. Consider installing frost-free hose bibs if you don't already have them.

If you discover frozen pipes, shut off your main water valve immediately and call a licensed plumber. Attempting to thaw pipes yourself with torches or high heat can cause them to burst. For a free consultation on winterizing your plumbing system before Ottawa's next deep freeze, contact Ottawa Pro Plumbing.

Q5

How do I know if I have a water leak in my house?

Water leaks can be sneaky and cause thousands in damage if not caught early. Here are the key signs to watch for and simple tests you can do to detect hidden leaks in your Ottawa home.

Check your water meter - this is the most reliable detection method. Turn off all water in your house, locate your water meter (usually near the street), and note the reading. Wait 2-3 hours without using any water, then check again. If the numbers have changed, you have a leak somewhere in your system.

Watch for visible signs around your home. Look for water stains on ceilings or walls, especially under bathrooms or near water heaters. Check for soft or discolored spots on floors, musty odors that could indicate hidden moisture, or unexplained increases in your water bill. In Ottawa's freeze-thaw cycles, pay special attention to basement walls and areas where pipes run through exterior walls.

Listen for running water when all fixtures are off. You might hear water running in walls, or notice your toilet tank refilling when no one has used it. Check each toilet by adding food coloring to the tank - if color appears in the bowl without flushing, you have a leak that's wasting water 24/7.

Inspect common problem areas including under sinks, around the water heater, washing machine connections, and outdoor hose bibs. In Ottawa homes, basement pipes and fixtures near exterior walls are particularly vulnerable during winter months. Look for mineral deposits, rust stains, or dampness that shouldn't be there.

Early detection saves money - a small leak can waste thousands of gallons and cause major structural damage over time. If you suspect a leak but can't locate it, or if you find signs of water damage, contact a licensed plumber immediately. Professional leak detection equipment can pinpoint hidden leaks without damaging your walls or floors.

For professional leak detection and repair services in Ottawa, request a quote from Ottawa Pro Plumbing - we use advanced equipment to locate leaks quickly and minimize damage to your home.

Q6

Why is there condensation on my cold water pipes?

Condensation on cold water pipes is completely normal - it happens when warm, humid air contacts the cold pipe surface, causing water vapor to condense into droplets, just like a cold glass of water "sweats" on a hot day.

This occurs most commonly during Ottawa's humid summer months when basement air is warm and moisture-laden, while your cold water pipes remain cool (typically around 10-15°C). The temperature difference creates the perfect conditions for condensation. You'll notice this most on pipes in basements, crawl spaces, or other areas with poor air circulation.

The condensation itself isn't harmful to your plumbing, but it can cause problems if left unchecked. Constant dripping can damage ceiling tiles, drywall, or flooring below. In extreme cases, persistent moisture can lead to mold growth or wood rot in surrounding materials. The issue tends to be worse in older Ottawa homes with less ventilation or higher humidity levels.

Prevention is straightforward and usually involves controlling humidity or insulating the pipes. Installing a dehumidifier in your basement can reduce overall moisture levels. Improving ventilation with fans or opening windows during cooler evenings helps air circulation. For a permanent solution, pipe insulation (foam sleeves or wrap) creates a barrier that prevents warm air from contacting the cold pipe surface.

If you're seeing excessive condensation or water damage, it's worth having a plumber inspect the area to rule out actual leaks, which can sometimes be mistaken for condensation. We can also recommend the best insulation solutions for your specific Ottawa home's layout and humidity conditions.

What are signs of corroded pipes?

Corroded pipes show several warning signs that Ottawa homeowners should watch for, including discolored water, reduced water pressure, and visible rust or mineral buildup on exposed pipes.

The most obvious sign is **rusty or brown water** when you first turn on taps, especially in the morning. This indicates iron corrosion inside your pipes. You might also notice a metallic taste in your drinking water or see reddish-brown stains in sinks, tubs, and toilets. **Reduced water pressure** throughout your home often signals that corrosion buildup is restricting water flow inside the pipes.

Look for **visible signs on exposed pipes** in your basement, crawl space, or utility areas. Flaking rust, white or green mineral deposits, or small pinhole leaks are clear indicators of corrosion. **Frequent leaks** in different areas of your plumbing system suggest widespread pipe deterioration rather than isolated problems. You might also hear **unusual sounds** like banging or rattling when water runs, which can indicate loose pipe joints weakened by corrosion.

In Ottawa's climate, **older homes with galvanized steel pipes** (common before 1960) are particularly susceptible to corrosion. The freeze-thaw cycles and mineral content in Ottawa's water can accelerate the process. Copper pipes typically last 50-70 years, while galvanized steel may need replacement after 20-50 years depending on water conditions.

Don't ignore these warning signs - corroded pipes can burst without warning, causing significant water damage. If you're seeing multiple symptoms, it's time for a professional pipe inspection. A licensed plumber can use camera inspection to assess your pipe condition and recommend whether spot repairs or full replacement is needed. For a comprehensive evaluation of your home's plumbing system, request a quote from Ottawa Pro Plumbing.

Should I replace copper pipes with PEX?

PEX is generally a smart upgrade from copper pipes, especially in Ottawa's climate where freeze-thaw cycles can stress copper joints. PEX offers better freeze resistance, lower material costs, and easier installation, making it the preferred choice for most residential repiping projects.

The main advantages of switching to PEX include superior flexibility that reduces the risk of burst pipes during freezing, resistance to corrosion and mineral buildup that commonly affects copper in Ottawa's hard water areas,

and significantly lower installation costs. PEX also maintains water temperature better than copper and won't develop pinhole leaks that older copper systems often experience after 20-30 years.

However, copper still has some benefits - it's proven to last 50+ years when properly maintained, has antimicrobial properties, and some homeowners prefer it for aesthetic reasons in exposed areas. The decision often comes down to the age and condition of your current copper system, your budget, and whether you're doing a whole-home repipe or just replacing problem sections.

In Ottawa specifically, most plumbers now install PEX for new work and repiping projects. The material handles our temperature extremes well, and installation typically costs 30-40% less than copper. City of Ottawa permits are required for repiping work, and the installation must meet Ontario Building Code requirements for proper support and protection.

Consider replacement if your copper pipes are over 25 years old, you're experiencing frequent leaks, or you're already doing major renovations. For a whole-home repipe in Ottawa, expect costs between \$5,000-\$15,000 depending on home size and accessibility. A licensed plumber can assess your specific situation and help you determine if partial or complete replacement makes the most sense.

For a free assessment of your copper pipes and PEX replacement options, request a quote from Ottawa Pro Plumbing.

Q9

What type of pipes are best for homes?

PEX (cross-linked polyethylene) pipes are currently the best choice for most Ottawa homes, offering excellent freeze resistance, flexibility, and cost-effectiveness that's particularly valuable in our climate.

PEX has become the gold standard for residential plumbing because it expands slightly when water freezes, reducing the risk of burst pipes during Ottawa's harsh winters. It's also much easier to install than rigid pipes, requiring fewer joints and fittings where leaks typically develop. The material resists corrosion and scale buildup, maintaining good water flow for decades.

Copper pipes remain an excellent premium option and are still preferred by many homeowners for their proven 50+ year lifespan and antimicrobial properties. However, copper costs significantly more than PEX and requires skilled soldering for installation. In Ottawa's older homes, you'll often find copper that's performed well for decades, though it can be susceptible to pinhole leaks in certain water conditions.

For Ottawa homes specifically, PEX's freeze resistance is a major advantage. Our temperature swings and potential for power outages make burst pipe prevention crucial. PEX also handles our mineral-rich groundwater well, unlike older materials that might corrode or restrict flow over time.

Avoid older pipe materials if you're renovating - galvanized steel corrodes and restricts water flow, while polybutylene (gray plastic pipes from the 1980s-90s) is prone to failure and should be replaced. Any repiping work in Ottawa requires permits and should be done by licensed plumbers to ensure code compliance.

For your specific situation, factors like your home's age, existing plumbing, and budget will influence the best choice. A plumbing assessment can help determine whether selective replacement or whole-home repiping makes more sense.

How do I insulate my pipes for winter?

Pipe insulation is essential in Ottawa's harsh winters to prevent freezing and costly burst pipes. You'll want to focus on exposed pipes in unheated areas like basements, crawl spaces, garages, and exterior walls.

Start with foam pipe insulation sleeves, which are the most common and effective option for most homeowners. These pre-slit foam tubes slip over pipes and come in various diameters to match your pipe sizes. For copper pipes, choose sleeves with a wall thickness of at least ½ inch. Simply measure your pipe diameter, buy the matching sleeves from any hardware store, and slide them over the pipes. Seal the seams with duct tape or zip ties.

For pipes in extremely cold areas or those that have frozen before, consider heat tape or heat cables as additional protection. These electric heating elements wrap around pipes and plug into standard outlets. However, they must be installed according to manufacturer instructions and should only be used on metal pipes - never on plastic pipes unless specifically rated for them.

In Ottawa's climate, pay special attention to pipes near exterior walls, in unheated basements, and around rim joists where cold air infiltration is common. Don't forget about outdoor hose bibs - disconnect hoses and consider installing frost-proof spigots if you don't have them already. For pipes in walls, you might need to add insulation to the wall cavity itself.

Beyond insulation, maintain consistent heating in your home and open cabinet doors under sinks during extreme cold snaps to let warm air circulate around pipes. If you're dealing with pipes in hard-to-reach areas or need advice on heat tape installation, a licensed plumber can ensure everything is done safely and effectively.

For a comprehensive winter plumbing inspection and professional pipe insulation in hard-to-reach areas, Ottawa Pro Plumbing can help protect your home from freeze damage.

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How much does it cost to fix a leaking pipe?

Pipe leak repair costs in Ottawa typically range from \$200 to \$500, depending on the location, pipe material, and extent of damage. Simple fixes like tightening a joint or replacing a small section might be on the lower end, while accessing pipes behind walls or replacing larger sections costs more.

The final cost depends on several key factors. **Accessibility** plays a huge role - a visible pipe under your kitchen sink is much cheaper to repair than one buried in a wall or slab. **Pipe material** also matters, as copper repairs require different techniques and materials than PEX or PVC. The **extent of damage** determines whether you need a simple patch, joint replacement, or full section replacement.

Location within your home significantly impacts pricing too. Main line leaks or those requiring wall/floor removal to access will cost more due to additional restoration work. Emergency calls outside regular business hours typically include a service charge of \$150-\$250 plus repair costs.

In Ottawa's climate, **frozen pipe repairs** are common in winter and may involve additional costs if the pipe burst and caused water damage. Most leak repairs require permits in Ottawa, which licensed plumbers handle as part of their service.

Act quickly when you discover a leak - even small drips can cause significant water damage over time, leading to much higher repair bills. Turn off water to the affected area if possible, and document the damage for insurance purposes.

For an accurate estimate on your specific leak, Ottawa Pro Plumbing offers free consultations to assess the damage and provide upfront pricing before any work begins.

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How long do copper pipes last?

Copper pipes typically last 50-70 years in Ottawa homes, making them one of the most durable plumbing materials available. However, their actual lifespan depends heavily on water quality, installation quality, and maintenance.

Water chemistry is the biggest factor affecting copper pipe longevity. Ottawa's relatively hard water can actually help protect copper pipes by creating a protective mineral coating inside the pipes. However, acidic water (low pH) can cause premature corrosion and pinhole leaks. Homes with well water or older areas with aggressive water chemistry may see copper pipes fail in 30-40 years instead of the typical 50-70 year range.

Installation quality matters significantly. Properly installed copper with good support, proper slope, and quality fittings will last much longer than rushed installations. Poor workmanship, inadequate support causing vibration, or mixing copper with other metals without proper dielectric unions can lead to early failure through galvanic corrosion.

Signs your copper pipes may need replacement include multiple pinhole leaks, discolored water, reduced water pressure, or visible green corrosion on exposed pipes. In Ottawa's older neighborhoods like the Glebe or Westboro, many homes built in the 1950s-70s are reaching the point where copper repiping becomes necessary.

Preventive maintenance can extend copper pipe life by monitoring water pH, installing a water softener if needed, and addressing leaks promptly. However, once copper pipes start developing multiple leaks, it's usually more cost-effective to repipe rather than chase individual repairs.

If your copper pipes are approaching 50 years old or showing signs of deterioration, consider having a licensed plumber assess their condition. **For a comprehensive evaluation of your home's plumbing system, Ottawa Pro Plumbing offers free consultations** to help you plan for any necessary updates.

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Is it safe to have lead pipes in my house?

No, lead pipes are not safe and should be replaced as soon as possible. Lead can leach into your drinking water, posing serious health risks especially for children, pregnant women, and developing fetuses.

Health risks from lead pipes include developmental delays in children, learning difficulties, reduced IQ, behavioral problems, and in adults can cause high blood pressure, kidney problems, and reproductive issues. Even small amounts of lead exposure can be harmful, and there is no safe level of lead in drinking water according to Health Canada.

In Ottawa, many homes built before 1955 may have lead service lines connecting to the municipal water system, and homes built before the 1980s may have lead pipes, lead solder, or brass fixtures containing lead inside the home. The City of Ottawa has been working to replace lead service lines, but private property owners are responsible for replacing lead pipes within their homes.

Signs you might have lead pipes include dull gray pipes that are soft enough to scratch with a key, pipes that make a dull thud when tapped (compared to the ring of copper pipes), or if your home was built before 1955. You can also have your water tested - the City of Ottawa offers free lead testing for residents.

If you suspect lead pipes, take immediate precautions: run cold water for 30 seconds to 2 minutes before drinking if it's been sitting in pipes for several hours, only use cold water for drinking and cooking (hot water leaches more lead), and consider using a certified water filter while planning for pipe replacement.

Replacing lead pipes requires a licensed plumber and permits from the City of Ottawa. The work typically involves replacing the entire water service line and any lead pipes within your home with copper or PEX piping. In Ottawa, full lead service line replacement can cost \$3,000 to \$8,000 depending on the complexity and length of the service line.

For immediate peace of mind, consider having your water tested and consulting with a licensed plumber about replacement options. Ottawa Pro Plumbing can assess your plumbing system and provide a free estimate for lead pipe replacement to protect your family's health.

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