

Ciriello PLUMBING

4 Things You Need to Know About Your Home's Plumbing Systems

Discover the things that every homeowner must know about plumbing to avoid costly and time-consuming problems.

Are you prepared to handle a plumbing problem or emergency?

Navigating the realm of homeownership can be an exciting journey filled with new possibilities, but it also comes with its fair share of challenges.

Plumbing issues, in particular, can prove to be overwhelming even for the seasoned homeowner. With their ability to quickly turn from a minor inconvenience into a major disruption to your daily life, plumbing problems can cause significant worry and leave you susceptible to misleading contracts with unreliable plumbers and ongoing plumbing problems.

However, arming yourself with knowledge about your home's plumbing system and partnering with an experienced plumbing professional can empower you to stay ahead of problems before they escalate into costly and time-consuming disasters.

In this guide, we'll explore four essential things you need to know about your home's plumbing system, equipping you with the knowledge you need to maintain a smoothly functioning household while minimizing unexpected disruptions.





Water Shut-off Valve

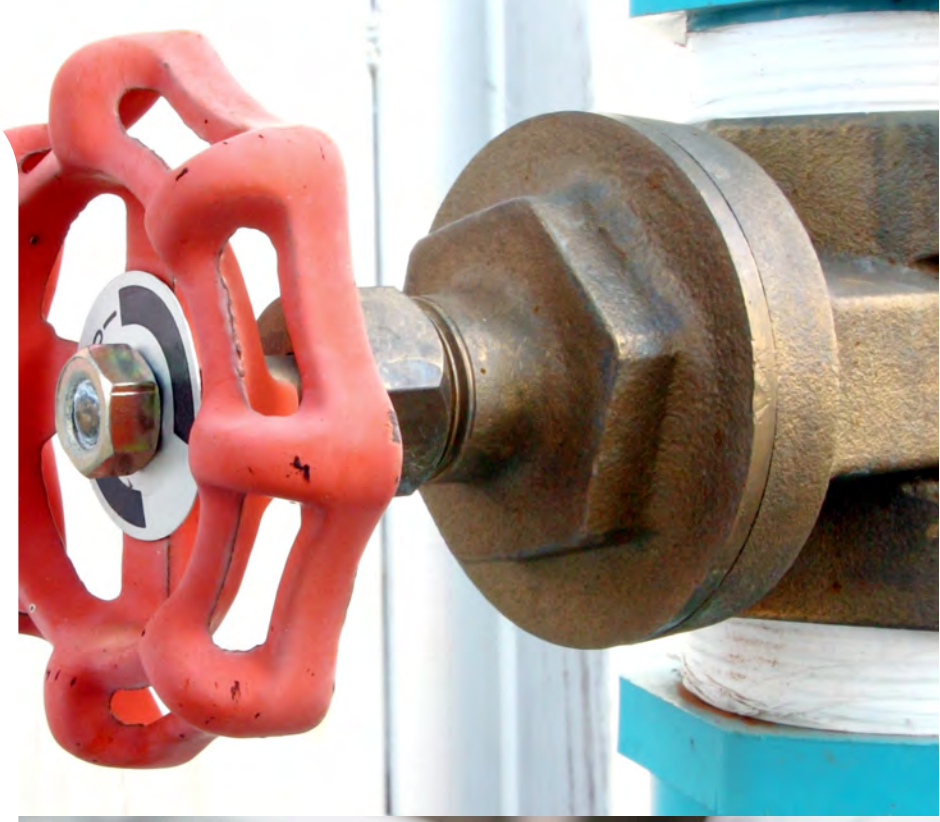
One of the most essential pieces of information you as a homeowner need to know is where your main water shut-off valve is located. This valve allows you to shut off your water should you need to conduct any plumbing repairs or have a water-based emergency such as flooding, overflow, or leakage—avoiding expensive damage to your home.

Two Types of Valves

There are two different types of shut-off valves, each with a different look but both with the same purpose.

A gate valve has a circular handle on a stem mounted to the valve's body. It's what most people imagine when thinking of a spigot for a garden house. When you turn the handle clockwise, or to the right, you close the gate and stop the water. Turning the handle counter-clockwise then reopens the gate and turns your water back on.

A ball valve features a lever that attaches directly to the body of the valve. When the lever is perpendicular to the waterline, the valve is closed. Likewise, if the lever is parallel to the waterline, it means your water is back on. The ball valve is seen as the best option of these two valves due to its ease of use.



Common Shut-Off Valve Locations

Knowing where your shut-off valve is located is extremely important as a homeowner. Some common places for this are your basement, crawlspaces, and mechanical or laundry rooms. If you still can't locate the valve, try following your waterlines or pipes. The main shut-off valve is usually located where your water enters your home.

If you're struggling to find the valve or, when you do find it, it seems to be leaking or damaged, it's recommended to seek professional help. Doing so can help ensure the safety of your family and home and prevent expensive damage.





Water Heater Maintenance and Management

Your water heater is regularly used for many tasks—such as laundry, washing dishes, and showering. Over time, this daily use can put stress on the heater, which can impact your plumbing system's longevity and lead to problems down the line.

With this in mind, it's important to know how old your water heater is. In fact, the age of your water heater can influence a number of things—including if your warranty is still valid, if you need to replace it, when maintenance is due, and if your insurance will cover any damage caused by it breaking. You should be able to find your water heater's age by looking at its label.

The Basics

Conventional water heaters last 10-15 years, but you can potentially extend that time and prevent the need for costly and recurring repairs with regular maintenance. Depending on the age of your water heater, you should schedule annual or bi-annual service appointments, with more regular maintenance checks recommended the older your heater gets.

During these maintenance appointments, your technician will go through a number of processes—including flushing the water to remove any sediment, inspecting the drain valve, and assessing and potentially replacing the anode rod.

Due to the potential safety hazards involved, water heater maintenance is always best left to the professionals.

Common Causes of Damage

Water heaters can be susceptible to various issues, often stemming from several common causes.

Sediment Buildup

One prevalent issue is sediment buildup within the tank. Over time, the minerals found in water can build up on the bottom of your water heater tank in a layer of sediment. This can block the water from the burner and cause the burner to run more often and longer to heat your water—which can lead to decreased efficiency and corrosion of the tank's interior.





Corrosion

Corrosion itself is another significant concern, particularly in older units or those with inadequate corrosion protection. Anode rods help to protect the inner lining of your water heater by attracting corrosive materials. This causes the rod to erode rather than the lining of your heater. When your anode rod becomes unusable (usually after 3-5 years), the inner lining begins to erode instead.

Improper Installation & Maintenance

Improper installation or maintenance practices, such as inadequate insulation or neglecting to flush the tank regularly, can worsen sediment buildup and corrosion and potentially cause expensive damage to your water heater and home.

Warning Signs of Potential Damage

Recognizing the warning signs of potential damage to your water heater is crucial for maintaining the functionality and safety of your home's plumbing system. From noticing subtle indicators to more obvious signals, being vigilant can help you address issues before they escalate into costly repairs or emergencies.

Here are several key signs to watch out for:

- Inconsistency in water temperatures
- Inconsistency in water pressure
- Sudden increase in utility bills
- Leakage around the water heater
- Not enough hot water
- Loud noises coming from the water heater
- Dirty tap water

If you experience any of these situations, we recommend you seek help from a professional plumber.





Preventative Measures

While most maintenance is better left to the professionals, there are some measures you can take to prevent potential damage and keep your water heater running smoothly.

Inspect the Water Heater

First, be sure to regularly check on the heater itself and the space around it. Make sure there are no cracks, drips, or debris that could potentially cause a leak later.

Check the Temperature

Be sure to check the heater's temperature. This should be somewhere between 115 and 120 degrees Fahrenheit. Anything higher than 125 degrees Fahrenheit could prove to be dangerous, and anything lower than 115 degrees would indicate that the heating component isn't working effectively.

Test the Pressure Release Valve

As an added safety feature, water heaters have a pressure relief valve. Its purpose is to open and release pressure if the water heater becomes overpressurized. You can easily check this yourself by gently lifting the valve halfway. Upon release, the valve should automatically snap back into place. If it fails to do so, it's advisable to reach out to a professional to ensure your pressure relief valve is functioning correctly.





Home Sewer System Maintenance and Management

One aspect of your plumbing system you might not have paid much attention to is your sewer system. Home sewer systems are comprised of three main components: the main sewer line, drain lines, and traps.

The main sewer line is the central part of your sewer system. It's buried outside your home and connects your system to the public sewer line or your septic tank. Drain lines then connect your household drains—such as your kitchen and bathroom sinks, showers, and toilets—to this main sewer line, allowing waste and excess water to be disposed of safely.

As the name suggests, traps are pieces of pipe used to trap sections of water when your drain is not in use. While this may seem counterproductive, it actually plays a crucial role in preventing odors and potentially hazardous gases from entering your home.

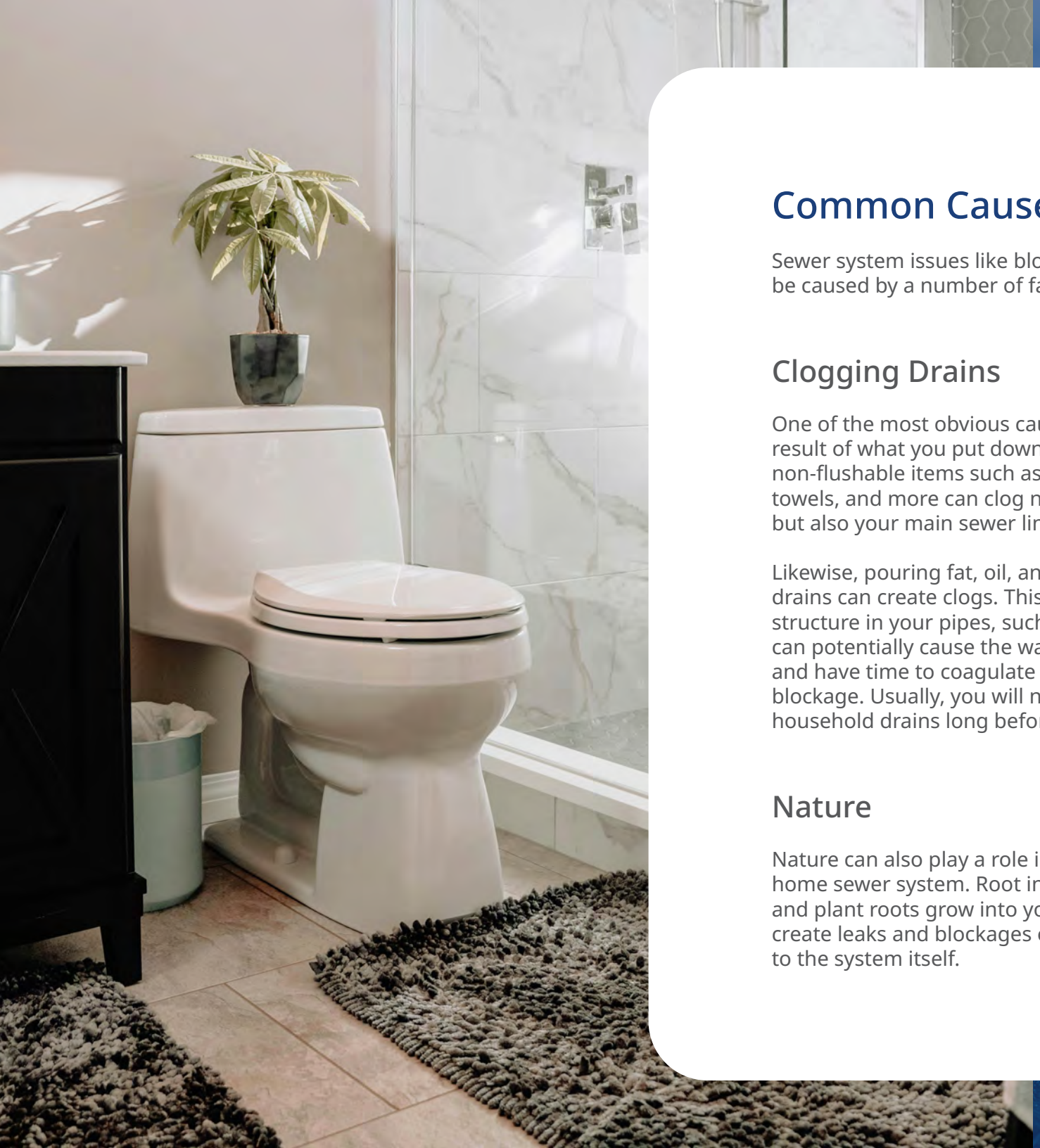
The Basics

Sewer systems have a lifespan of around 50 years. While it doesn't require regular maintenance or cleaning, it is recommended that you have a plumbing professional conduct a video inspection every two years. This inspection will show any damage or blockages in your sewer systems and can help you prevent thousands of dollars in potential damage.

If the inspection shows there are blockages or buildups, the professional will be able to decide on a preventative course of action such as jetting. Jetting uses a high-pressure water jet to scrub the walls of your pipes and sewer lines to break down any blockages or buildup that could create clogs in the future.

When you have a clog or issue, it's important to contact a plumbing professional. If not dealt with quickly, these problems can worsen, potentially causing your sewer lines to break and leak sewage onto your property.





Common Causes of Damage

Sewer system issues like blockages and buildup can be caused by a number of factors.

Clogging Drains

One of the most obvious causes of damage is a result of what you put down your drains. Flushing non-flushable items such as sanitary products, paper towels, and more can clog not only your drain lines but also your main sewer line itself.

Likewise, pouring fat, oil, and grease down your drains can create clogs. This is usually caused by a structure in your pipes, such as a dip. This structure can potentially cause the waste to sit in the pipe and have time to coagulate into a solid, causing a blockage. Usually, you will notice this clog in your household drains long before you see it in your pipes.

Nature

Nature can also play a role in the function of your home sewer system. Root infiltration, or when tree and plant roots grow into your sewer system, can create leaks and blockages on top of general damage to the system itself.

Warning Signs of Potential Damage

While your sewer system should remain out of sight and out of mind for the most part, there are a few scenarios that may occur and indicate something is wrong with your system, including:

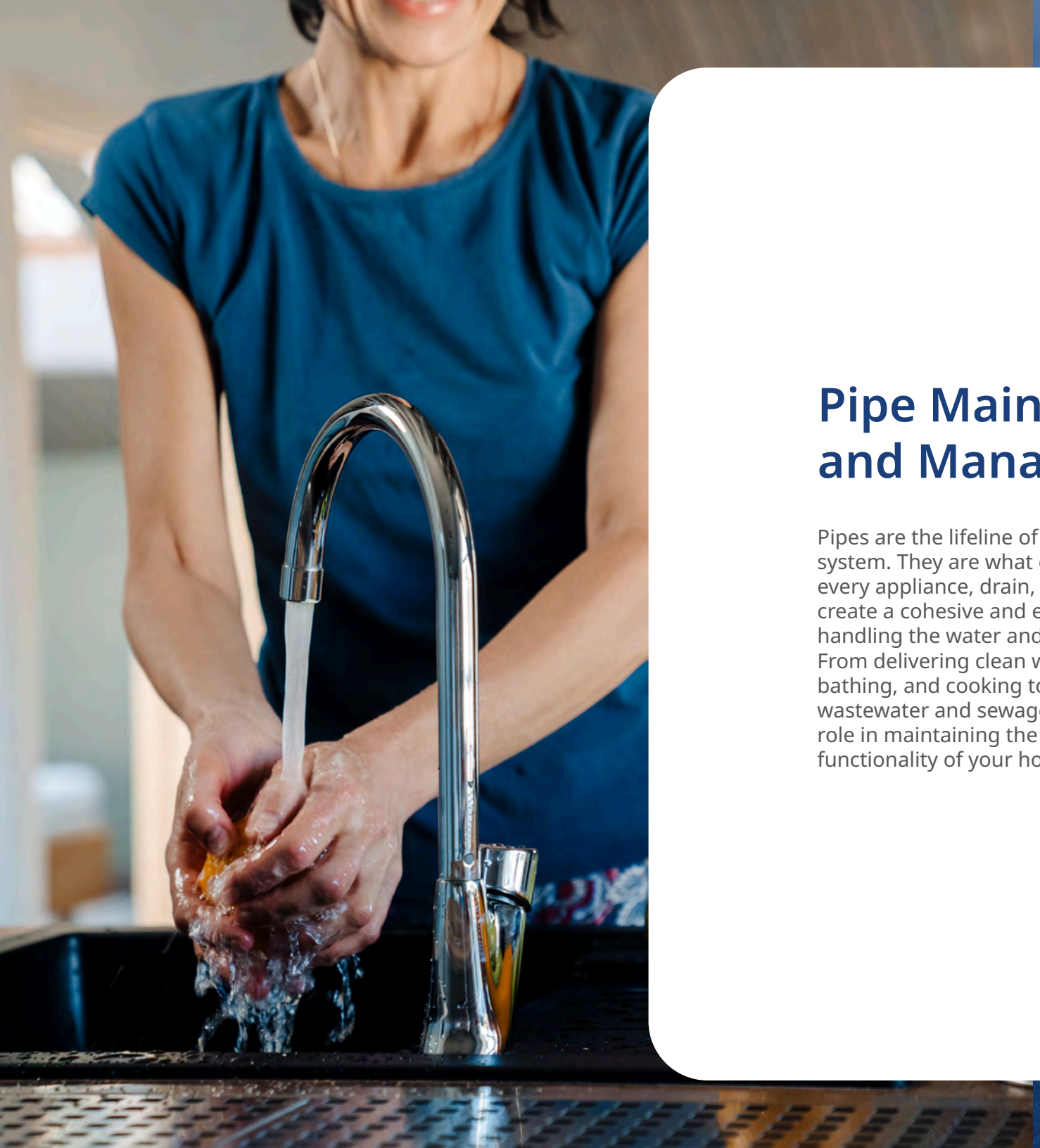
- Individual or groups of drains gurgling or draining slowly
- Water coming up through the drains
- Backup from the main house trap
- Water or sewer alarm going off (if owned)

Preventative Measures

Most of the common causes of blockages and leaks can be avoided by thinking about what you put down your drains. Try to limit the amount of fat, grease, and oil as well as other food items such as coffee grounds you send down your kitchen sink.

This also goes for the bathroom. Don’t flush non-flushable items and try not to rinse your hair into the drain whenever possible. If you have longer hair, snake out your shower drain on occasion to ensure hair doesn’t make it down into your pipes and later your main sewer line.





Pipe Maintenance and Management

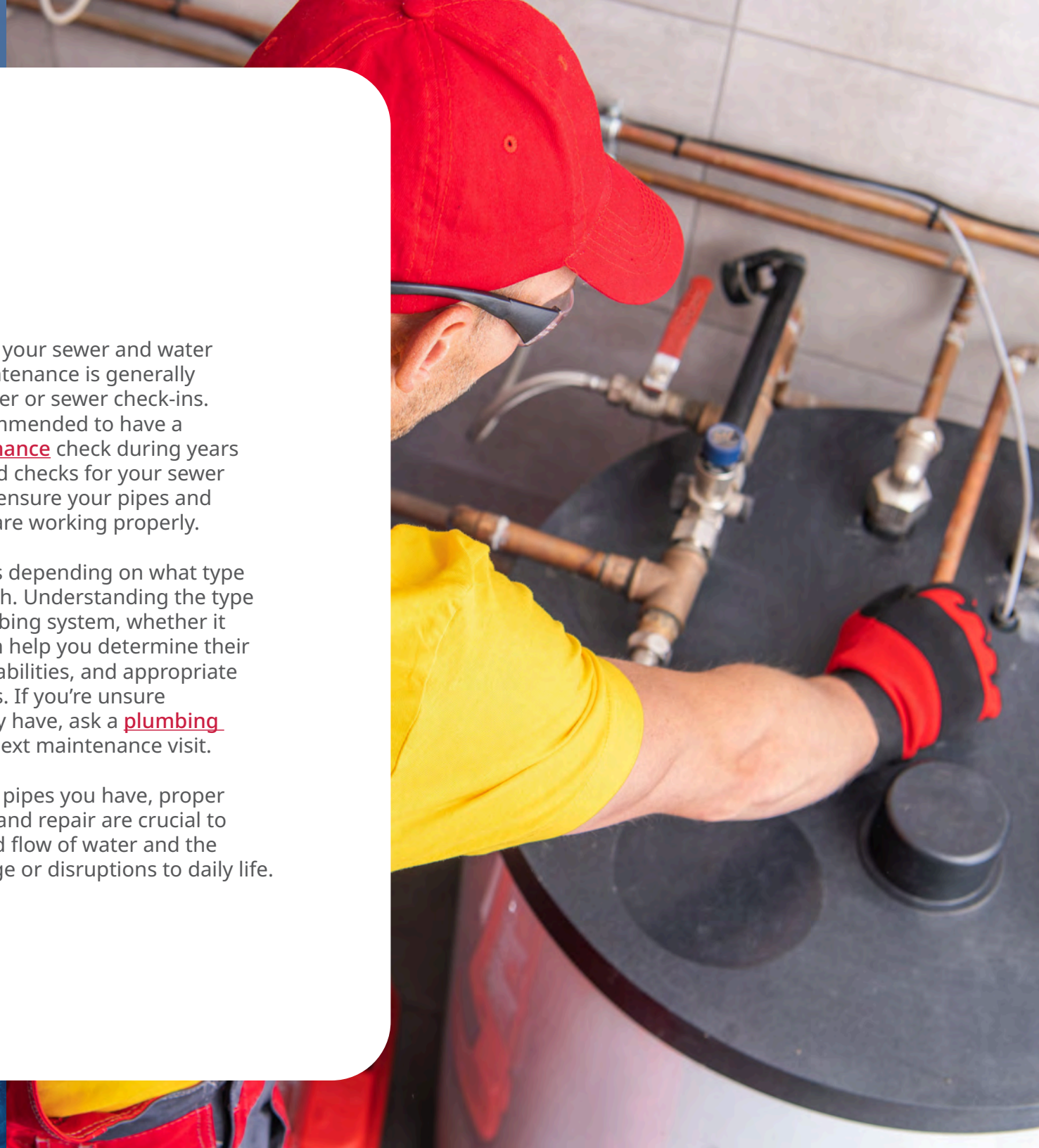
Pipes are the lifeline of any plumbing system. They are what connect nearly every appliance, drain, and system to create a cohesive and efficient network for handling the water and waste in your home. From delivering clean water for drinking, bathing, and cooking to safely removing wastewater and sewage, pipes play a vital role in maintaining the health, comfort, and functionality of your home.

The Basics

As they are a major part of your sewer and water systems, routine pipe maintenance is generally done alongside water heater or sewer check-ins. With this in mind, it's recommended to have a general plumbing maintenance check during years you aren't doing specialized checks for your sewer system or water heater to ensure your pipes and other plumbing elements are working properly.

The lifespan of pipes varies depending on what type your home is furnished with. Understanding the type of pipes used in your plumbing system, whether it be copper, PVC, or PEX, can help you determine their durability, potential vulnerabilities, and appropriate maintenance requirements. If you're unsure what type of pipes you may have, ask a plumbing professional during their next maintenance visit.

Regardless of what type of pipes you have, proper installation, maintenance, and repair are crucial to ensuring the uninterrupted flow of water and the prevention of costly damage or disruptions to daily life.





Common Causes of Damage

Structural damage is one of the most common problems homeowners experience. Usually, this manifests as leaks and cracks caused by corrosion, root intrusions, and frozen pipes.

Corrosion

Corrosion can be caused by a number of issues. For example, galvanic corrosion occurs when dissimilar metals are in contact with each other in the presence of an electrolyte, such as water. This process leads to the deterioration of one of the metals, resulting in weakened pipes and potential leaks.

Chemical corrosion can occur due to the interaction between the pipe material and substances in the water, such as acidic or alkaline compounds. Over time, this chemical reaction can erode the pipe walls, leading to pinhole leaks or complete failure.

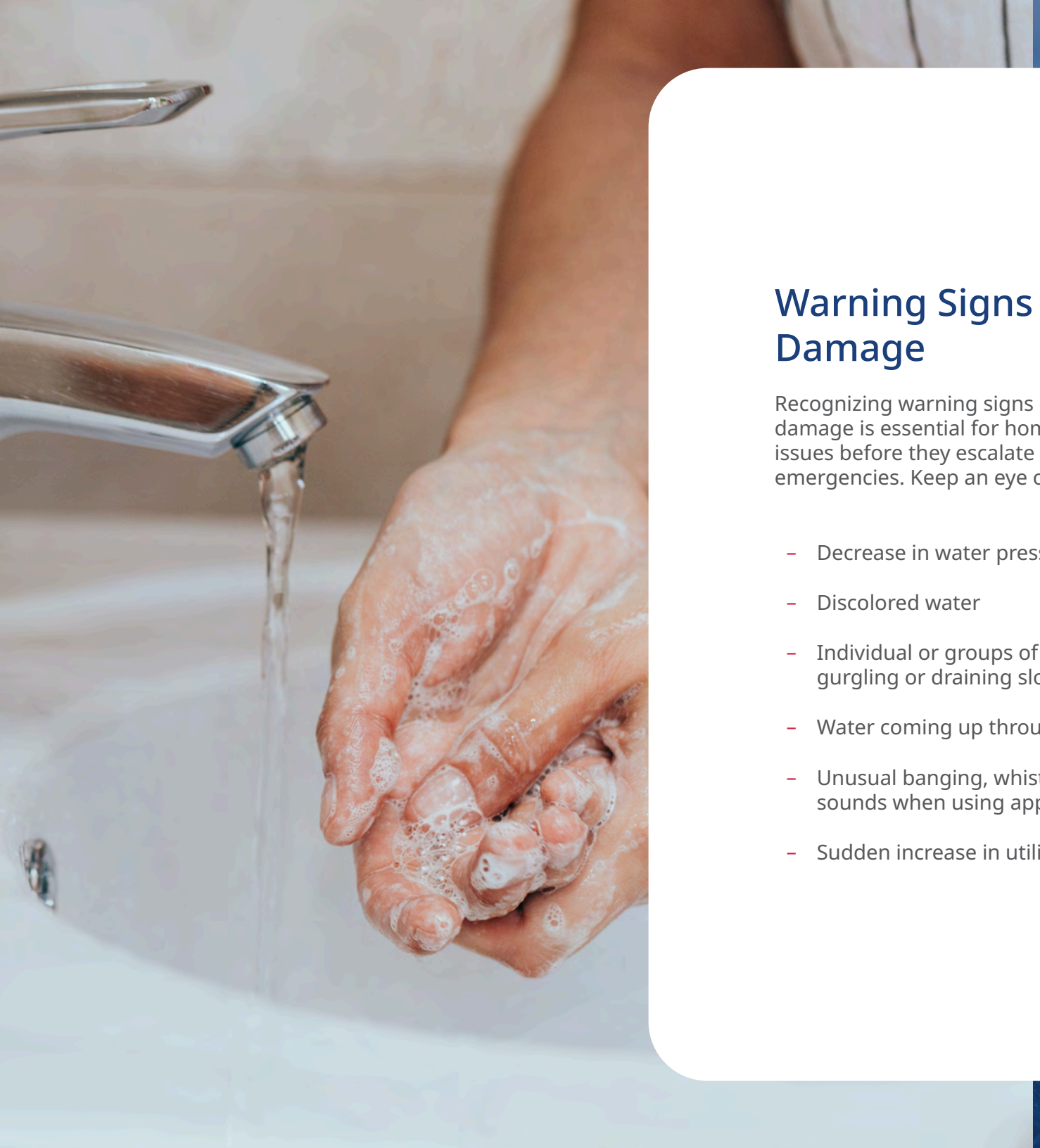
Root Intrusion

Just as with your sewer system, root intrusion can create chaos in your pipe system. Again, this is when roots find their way into your pipes, usually by pushing into the joints connecting separate pipes. It can create cracks and leaks, putting both your plumbing system and home in jeopardy.

Weather

Temperatures can also impact your plumbing systems. It’s no secret that frozen pipes can create extensive damage to your home. The drop in temperatures during the winter causes any standing water in your pipes to freeze and expand, potentially bursting your pipes and flooding your home. Pipes that are more exposed to outside temperatures such as those in exterior walls, garages, or basements are especially susceptible to this damage.





Warning Signs of Potential Damage

Recognizing warning signs of potential pipe damage is essential for homeowners to address issues before they escalate into costly repairs or emergencies. Keep an eye out for indicators, such as:

- Decrease in water pressure
- Discolored water
- Individual or groups of drains gurgling or draining slowly
- Water coming up through the drains
- Unusual banging, whistling, or gurgling sounds when using appliances
- Sudden increase in utility bills

Preventive Measures

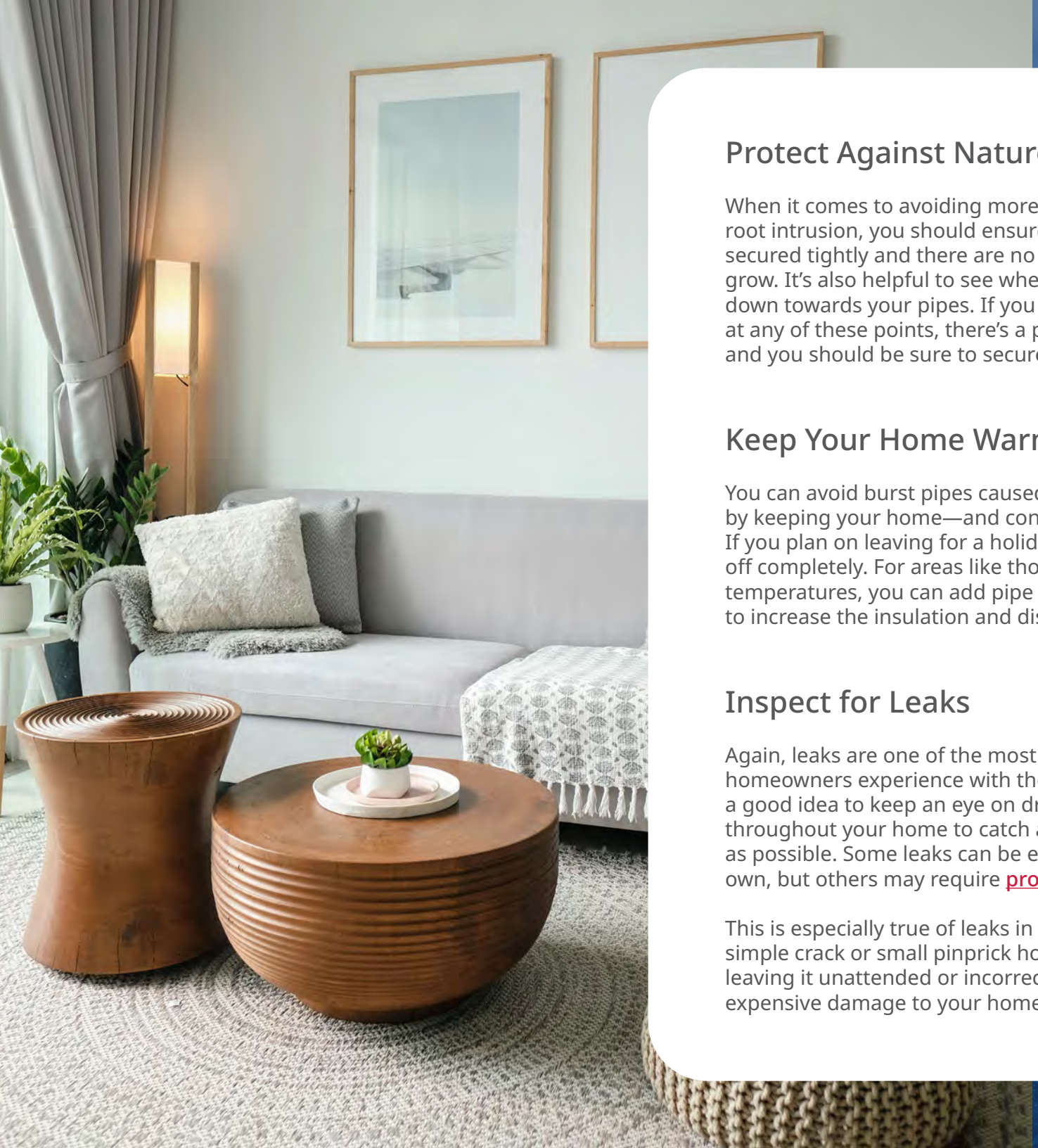
Understanding common pipe problems and taking proactive measures to prevent them can save you time, money, and stress in the long run. Whether you're dealing with issues related to corrosion, leaks, or blockages, knowing what to look out for and how to mitigate potential problems is essential for maintaining the integrity of your plumbing system.

Cleaning Your Pipes

Cleaning your pipes is a great way to ensure their longevity and prevent clogs and blockages. Today there are plenty of pipe and drain cleaners you can purchase to run through your plumbing yourself.

However, you need to be careful when you decide which cleaners to use. Some contain harmful chemicals that can erode your pipes' protective layers, leaving them more susceptible to breaking down and leaking. With this in mind, look for biological cleaners. These use bacteria to break down organic matter rather than harsh chemicals. These cleaners are harmless to humans and pets and clear out your plumbing without the risk of weakening your pipes.





Protect Against Nature

When it comes to avoiding more nature-based issues like root intrusion, you should ensure your pipe joints are all secured tightly and there are no openings for plant life to grow. It's also helpful to see where the ground outside dips down towards your pipes. If you see a collection of water at any of these points, there's a possibility of root intrusion and you should be sure to secure those locations.

Keep Your Home Warm

You can avoid burst pipes caused by freezing temperatures by keeping your home—and consequently your pipes—warm. If you plan on leaving for a holiday trip, don't turn your heat off completely. For areas like those more exposed to the cold temperatures, you can add pipe sleeves or use space heaters to increase the insulation and distribute heat to your pipes.

Inspect for Leaks

Again, leaks are one of the most common issues homeowners experience with their pipes. It's always a good idea to keep an eye on drains and appliances throughout your home to catch any warning signs as early as possible. Some leaks can be easily patched on your own, but others may require professional attention.

This is especially true of leaks in pipes themselves. While a simple crack or small pinprick hole may appear inconsequential, leaving it unattended or incorrectly patched can lead to expensive damage to your home and plumbing system.

Stay in control of your home.

Whether you're a seasoned homeowner or new to the world of property ownership, navigating these challenges can be daunting. From minor inconveniences to major disruptions in your daily routine, plumbing problems have a knack for catching us off guard.

However, by arming yourself with knowledge about your home's plumbing system, you can regain a sense of control and confidence in dealing with these issues. The insights shared in this guide are designed to empower you to stay ahead of potential problems, saving you both time and money in the long run.

A little understanding can go a long way in maintaining a smoothly functioning household and keeping plumbing disasters at bay!



Everyone deserves access to plumbing services that are honest, transparent, and expertly delivered.

When a plumbing challenge hits, the last thing you should have to worry about is poor workmanship, misleading costs, and inexperienced technicians.

That's why, with over 70 years of experience in plumbing and a strong reputation as the company that other plumbers rely on, we're dedicated to providing homeowners with a worry-free experience that's rooted in expertise, honesty, and efficiency.

By partnering with our expert technicians, you can say goodbye to concerns about being taken advantage of and experience effective and long-lasting plumbing solutions for your home.

1. Contact us to request a service.
2. Receive a professional assessment and a clear, upfront quote.
3. Solve your plumbing issues efficiently and effectively.

REQUEST SERVICE