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Then, replace the vinegar in the bucket with cold water and run the pump again to rinse the vinegar out of the heater.[12] 3 Rinse the inlet filter screen. The screen is located in the cold water supply valve where the supply line connects to the heater. With the cold water supply still off, screw the housing over the filter to remove it. Simply rinse with clean water to remove any debris and then replace it with a new one.[13] Once the regular cleaning and maintenance is finished, open the cold and hot water valves and turn the gas back on. Turn the gas back on for a few minutes to purge any air in the system. Flush your tankless water heater and clean the inlet filter screen at least once per year.

Advertisement 1 Schedule an annual inspection by a pro (especially for gas water heaters). If you're not confident in your water heater maintenance abilities, make an appointment to have it all done for you one session. A professional technician from a plumbing repair company like Roto-Rooter can inspect your tank and anode rod, flush it of sediment, and identify and repair any leaks, drips, or faulty valves. You can also inspect your gas line and connection for potential leaks if you have a gas water heater, which is important for maintaining your safety. Address water heater issues right away. If you notice rusty water, strange noises, or inconsistent water temperature, inspect your heater yourself or call a pro to take a look as soon as you can to prevent further damage. 2 Use your heater's vacation mode when you're out of town. Many water heaters have a vacation or low-energy mode to conserve energy while you're gone. If you're going to be away from your house for several days or more, consider turning on this feature. Simply adjust your temperature dial or thermostat to "Vacation" or "VAC." Most manufacturers set their vacation temperature to around 50°F (19°C). Some newer models may have a feature where you can set your return date, prompting the water heater to reheat before your return. 3 Install a water softener if your home has hard water. Mineral deposits from hard water can cause your water heater to run less efficiently or reliably. If your home has hard water, consider installing a water softener. While this is technically a job you could do yourself if you're confident in your abilities, water softener installation is typically left to the pros. Most installations take 2-4 hours and cost around \$1,800 and up.[14] A water softener will extend the life of your water heater and reduce your energy costs since the heater will work more efficiently. Advertisement 1 Signs your water heater needs maintenance If you notice any of these symptoms or performance issues, your water heater likely needs maintenance outside of your regular annual check: Your water looks cloudy, rusty, or sandy with debris. This means that corrosion in the tank or rusty pipes may be an issue. Run cold water and check to see if there's cloudiness and discolorization from sediment—if there is, the tank needs to be flushed. If it's still rusty, then the issue is likely with the cast iron water supply pipes.[15] Your water is not hot or is inconsistently hot. First, check the thermostat and raise it to 120°F (49°C) if it's not already. If this doesn't fix the issue, there may be a broken heating element that needs to be replaced by a professional. The heater makes banging or rumbling noises. This usually indicates sediment buildup and may be fixed by flushing the tank. Superheated or excessive sediment can cause long-term damage if left unattended. There are leaks from the pipes, connections, or valves. These leaks mean there are loose connections or corroded valves or pipes that need to be replaced or patched. 2 Signs your water heater needs to be replaced Even with great attention and regular maintenance, all water heaters meet their end someday. Here are the most obvious signs it's time to replace your water heater:[16] The exterior of the tank is corroding. This likely means the inside is corroding as well and that the tank should be replaced. The tank is leaking from the bottom. This also signifies bad corrosion that's eating through the tank. It's been repaired multiple times recently. If you've had to schedule repairs several times in the past few years, it may be time for this system to go. The heater is old, and you're not sure when it was last replaced. Most conventional heaters last 8 to 12 years, while tankless heaters may last up to 20. Dirty water, noises, or temperature inconsistencies don't improve. While these symptoms don't always mean replacement is imminent, they might if other fixes and maintenance can't correct the issue(s). Need an expert to replace your water heater? When it's wintertime, and your water runs cold, you might not feel like tinkering with your water heater yourself. Schedule a replacement with Roto-Rooter at any time. Their 24-hour emergency service means you'll have a brand-new water heater right away! Advertisement Familiarize yourself with these important parts of a water heater to make maintenance easier. Different models will be designed slightly differently, but almost all of them have the following: Water tank to store and heat water (only on conventional water heaters) Heating element or burner (like a pilot light in gas-powered heaters) Thermostat or temperature dial Anode rod inside the tank to prevent tank corrosion Temperature and pressure relief valve (TPR or T&P valve) to prevent excessive pressure buildup Dip tube to bring cold water to the bottom of the tank for heating Drain valve to release water from the bottom of the tank Cold water shut-off valve (found on top of the tank) Gas supply valve for gas-powered heaters 1 What are the types of water heaters? The most conventional water heater is a storage water heater that holds hot water in a tank to disburse when needed. These can be powered by gas or electricity. Besides these, there are several other types of water heaters (all with their own advantages, disadvantages, and maintenance needs):[17] Tankless water heaters can be gas or electric and heat water on an as-needed basis (rather than storing hot water in a tank). Electric heat pump water heaters draw in heat from the air and amplify it to warm the water stored in its tank. Solar water heaters are powered by the sun and may be installed on the roof or in a yard. There are different types for warm and cold climates. Condensing water heaters are mostly used commercially and can have a tank or be tankless. They pull air and natural gas into a combustion chamber to heat the water. 2 Can you flush your water heater yourself? Yes! Draining or flushing the water heater tank is considered regular maintenance and is doable on your own if you have the right equipment (a hose, a place to drain the water, and a pump for basement heaters) and are familiar with the components of a water heater. In general, the process takes an hour or 2 (including prep work and refilling the tank after flushing). If you don't know how to (or just don't want to) flush your heater yourself, a professional plumber or heating repair person can do it for you. 3 What's the annual maintenance cost for a water heater? Annual preventive maintenance usually costs \$100-500 per year and includes services like a tank flush, anode rod check and replacement, valve inspection, and more tune-ups. The final cost depends on factors like the type of water heater you have, how much work needs to be done, the cost of labor and parts, and whether you've called for a one-off inspection or you're on an annual maintenance plan.[18] 4 When should you call a professional? Call a professional when there's a problem that regular maintenance can't solve, when the heater needs to be replaced, or when you're concerned there may be gas leaks. For example, if you've flushed the tank and checked the thermostat, but the heater still won't heat, call a pro for a more in-depth inspection. You can also call a pro for basic maintenance and "easy" repair work that you don't feel comfortable doing yourself. It's better to pay for preventative maintenance on a hot water heater than to repair a mistake! Advertisement Ask a Question Advertisement Thanks Thanks Thanks Advertisement This article was co-authored by Roto-Rooter Plumbing & Water Cleanup and by wikiHow staff writer, Dan Hickey. Roto-Rooter Plumbing & Water Cleanup is a plumbing company based in Cincinnati, Ohio. Founded in 1935, Roto-Rooter is the largest provider of plumbing, drain cleaning and water cleanup services in North America. Their services arm, Roto-Rooter Group, manages the company-owned plumbing service locations, while Roto-Rooter Corporation oversees independent franchises and manufactures the company's patented, proprietary Roto-Rooter sewer and drain cleaning machines, as well as sewer and drain cleaning cables and blades. Roto-Rooter operates out of 100+ company-owned branches, and also supports 400+ independent franchise operations. Their hundreds of locations provide coverage of 90% of the U.S. population. Roto-Rooter handles residential or commercial plumbing and drain cleaning problems of any size. Well-versed in anything from small faucet repairs to full sewer pipe replacement services, Roto-Rooter has built a brand that consumers everywhere trust. Roto-Rooter also provides water damage cleanup caused by plumbing leaks, bad weather, or any other cause of flooding. Their licensed plumbers are experts in installing water softener and filtration systems. As the largest plumbing and drain service company in North America, Roto-Rooter makes thousands of repairs every day, guaranteeing satisfaction and peace of mind for their customers' every plumbing need. This article has been viewed 1,967 times. Co-authors: 3 Updated: April 10, 2025 Views: 1,967 Categories: Water Heating Systems Print Send fan mail to authors Thanks to all authors for creating a page that has been read 1,967 times. 1 out of 5StarsRequires only basic plumbing skillsElectric water heaters are common in many households, providing hot water for everyday needs. Proper maintenance is important for their longevity and efficiency. In this guide, we'll look at the steps to keep your electric water heater in top condition. In the accompanying video, The Old House plumbing and heating expert, Richard Trethewey, demonstrates key maintenance tasks and troubleshooting methods for electric water heaters."Cost information in this article sourced from Angi.Electric water heaters are simple appliances that heat water using electrical elements. They consist of a tank, heating elements, thermostats, and other safety features. You'll need to be familiar with these components in order to maintain them properly. An electric water heater includes a steel tank, a dip tube, a hot water outlet, an anode rod, heating elements, thermostats, and an emergency cut-off switch (ECO). The tank's glass lining prevents rusting, and the heating elements respond to thermostat adjustments by heating the water .Cold water enters the tank through the dip tube, which directs it to the bottom of the tank. The heating elements, typically one at the top and one at the bottom, heat the water. As hot water rises, it's drawn from the top of the tank when needed. The thermostat maintains the desired water temperature, usually set around 125 degrees Fahrenheit to prevent scalding.Regular maintenance on your electric water heater can extend its lifespan and efficiency. Checking temperatures, inspecting leaks, testing valves, and flushing the tank are all important tasks to keep your heater in good condition.Make sure your water heater's temperature setting is appropriate. A setting of 125 degrees Fahrenheit is generally recommended to balance energy efficiency and comfort while preventing scaling risks.Regularly check around the base of the water heater and along its connections for any signs of leakage. Early detection of leaks can prevent water damage and more serious issues.The pressure relief valve is an important safety feature. Test it annually by lifting the lever and allowing it to snap back. If water doesn't flow out, or if it continues to flow after releasing the lever, the valve may need replacement.Sediment buildup can reduce your water heater's effectiveness. Flush the tank annually to remove any buildup. Start by turning off the power to the water heater and letting it cool down. Then, attach a garden hose to the drain valve and turn on the water supply. Use a bucket to catch the water as it drains out. If you encounter any issues, such as not getting any hot water, the problem could be a tripped circuit breaker, a faulty heating element, a malfunctioning thermostat, or the ECO switch that could have been activated. First, check your electrical panel to make sure the circuit hasn't tripped. If power is reaching the unit, the issue may be caused by the heating elements or thermostat. If you're running out of hot water quickly, it could indicate a faulty low heating element, an incorrect thermostat setting, or sediment buildup in the tank. Start by checking and adjusting the thermostat setting, but if the problem persists, you may need to test the heating elements or flush the tank to remove sediment.Discolored or foul-smelling water often indicates a corroded anode rod or bacterial growth in the tank. Replacing the anode rod can usually resolve this issue, but if not, you may need to flush and sanitize the tank.Faulty heating elements are a common cause of water heater problems. In this video, Trethewey demonstrates how to test and replace these components.To test a heating element:Turn off the power on the water heater at the circuit breaker.Remove the access panel and insulation to expose the element.Disconnect the wires from the element.Use a continuity tester to check for a complete circuit between the two screw terminals.If the tester doesn't light up, the element is faulty and needs replacement.When replacing an element, it's a good idea to also replace the thermostat and ECO switch.To replace a heating element:Drain the tank to below the level of the element.Use a specialized socket wrench to remove the old element.Install the new element with a new gasket.Refill the tank and restore power.The anode rod is an important part of protecting your water heater from corrosion. It's designed to corrode in place of the tank lining.Inspect the anode rod every few years:Turn off the power and water supply.Drain a few gallons from the tank.Locate and remove the anode rod (usually found on top of the tank).If the rod is less than 1/2 inch thick or covered in calcium, replace it with a new one of the same size and length.Remove the old rod using a socket wrench.Wrap the threads of the new rod with Teflon tape.Install the new rod and turn the water supply back on to flush the tank and restore power.Improving your electric water heater's efficiency can save you money on your energy and utility bills. To do this, insulate the tank and hot water pipes to reduce heat loss and lower the thermostat setting to 120degrees Fahrenheit, which still prevents scalding. Install low-flow fixtures to reduce hot water usage and upgrade to a more efficient model if your current unit is over 10 years old.Regularly inspecting the insulation on the hot water pipes can prevent any unnecessary heat loss, helping the water to stay hot for longer periods. If you're upgrading your unit, look for ones with higher Energy Star ratings. Although these water heaters are more expensive upfront, these models can save your energy over their lifespan.Alternative water heating solutions, like a solar water heater, can also lower your electric bills, especially in sunny regions. Performing regular maintenance tasks, as outlined earlier, extends the lifespan of your water heater and helps make sure it operates efficiently. Whether your home has a gas or electric water heater, staying on top of a regular maintenance checklist is key to making sure this appliance lasts for its full 10 to 20 year lifespan. With a little bit of plumbing knowledge and some basic DIY skills—plus a professional inspection every few years—you actually can carry out most water heater maintenance yourself. Water heaters are complex, and maintaining them requires safety measures to avoid the risk of burns. Most of the time, your heater contains scalding water under pressure, which can spray from the pressure-relief valve. Gas water heaters also rely on flammable natural gas that can leak from valves or pipes and create a dangerous situation. If you find any issues when conducting maintenance on the unit, it's best to leave repairs to the professionals. When inspecting an existing water heater, wear protective eye goggles and appropriate clothing. You should also inspect the surrounding water heater's body, pipes, gaskets, seals, and other connections for any leaks, wear, or corrosion. Make sure to always check the thermostat setting every few months to ensure it's set between 120°F and 140°F. If you spot any issues during this process and aren't sure how to fix them yourself, call a technician. One of the most important maintenance tasks is flushing the water heater at least once a year. This will clear out any sediment build-up, and can help to increase the performance and lifespan of the heater. Turn off the thermostat and shut down the water supply to the tank the night before to give the water inside time to cool down. The next day, turn off power to the heater, open a nearby faucet, connect a garden hose to the heater's drain valve, and turn the water back on, allowing all water in the tank—and any built-up sediment—to flush out. An anode rod is a piece of metal near the top of water heater tanks that attracts minerals and sediment, preventing the inside of the tank from corroding. The rod will naturally corrode over time as it does its job, so it needs to be checked (and potentially replaced) every three to five years. Start by turning off the water heater power to the unit. Next, attach a hose to the drain valve and clear about 10 percent of the water from the tank. Remove the anode rod to check for corrosion, then reinstall or replace it. The temperature and pressure (T&P) valve is designed to automatically open when the pressure inside the tank is too high, helping to relieve pressure and prevent the risk of explosion. Take a few minutes to test the T&P valve once every two to three months. First, locate the T&P valve on the top or side of the unit, and remove the attached drain pipe attached using a set of pliers or a plumber's wrench. Gently lift the T&P valve lever to check if water and air escape, taking care to avoid contact with the water or steam. There are several different types of water heaters, and the one (or ones) found in your home will typically be the type best suited to its size, use, efficiency, and running costs: Tank water heaters are one of the most common and affordable types, and typically hold 30-60 gallons of water. They are powered by gas or electricity. Tankless water heaters are smaller and more energy-efficient. They don't store water, but instead heat water on demand. Hybrid water heaters combine tank and tankless features, offering a middle ground in terms of space and energy use. Heat pump water heaters are the most energy-efficient and eco-friendly, but they are also the most expensive. They use a heat pump to heat water, making them a good choice for homes with high energy bills. Solar water heaters are a sustainable option, but they require a lot of space and are typically only suitable for sunny climates. Water heaters are also used in commercial settings, such as hotels, schools, and businesses. These heaters are often larger and more expensive than residential models, and they may have additional safety features. When choosing a water heater, consider factors like your home's size, climate, budget, and energy efficiency goals. Regular maintenance is crucial for all types of water heaters to ensure they operate safely and efficiently. This includes checking for leaks, testing safety valves, and flushing the tank to remove sediment. If you're unsure about any aspect of water heater maintenance, it's always a good idea to consult with a professional plumber. They can provide expert advice and ensure that your water heater is installed and maintained correctly. Remember, a well-maintained water heater can last for many years, providing you with hot water when you need it. So, take the time to care for your water heater properly, and you'll enjoy the convenience of hot water for years to come. Whether the hot water is running out in five minutes or there are frequent fluctuations in water temperature, this is a sure sign something is up with your water heater. While you may notice it mostly in the shower or bath, the problem will persist for any fixture using hot water, so check them all if you suspect an issue. Discolored Hot Water Like above, this is a pretty obvious sign something is foul in the state of water heaters. It's a likely indicator of sediment accumulation in the tank, which can happen quickly in areas with hard water. Foul Smells or Bad-Tasting Water A metallic flavor to the water—or the scent of rotten eggs—can be easy to attribute to other causes, but you'll want to check your water heater just to be safe. These odors could indicate the presence of bacteria in your water heater—or that it's time to replace the anode rod. Tank Is Hot to the Touch Water heaters are insulated, so they should always be safe to touch, if a little warm. If your water heater is overheating, there may be problems with the ventilation or insulation or it may be time to flush the tank of sediment. Weird Noises Banging, clanking, popping, hissing and rumbling—whatever odd noise your water heater is making, take a look as soon as possible. Most sounds are innocuous, but some can indicate sediment build-up—especially if they persist. Hot Water: The water inside your water heater is, well, hot. Water over 120°F will cause scalding burns and most water heaters are set around 10-20°F beyond that. When performing maintenance, avoid touching any hot water directly and allow the water plenty of time to cool down before draining. Similarly, if your problem is that your tank is hot to the touch, let it cool before completing any close inspections. Health risks: Malfunctioning water heaters—namely those that are not hot enough or have sediment build-up—are a breeding ground for bacteria that could make you and your family sick. Keep the surrounding area clear: Water heaters will come with specifications about what can or can't be present in the immediate surrounding area. Always keep flammable or combustible materials away from a hot water heater. If your water heater goes "knocking," you don't want to make the situation worse by accidentally setting anything on fire. Gas water heaters: If you have a gas water heater, make sure you follow the proper protocol when completing maintenance. Turn off gas supply lines or pilot lights when necessary (e.g. if treating your house for pests), and install an automatic shut-off safety valve that will cut the gas flow in the event of an emergency. Carbon monoxide: A gas water heater can leak carbon monoxide due to inadequate ventilation or improper installation. Carbon monoxide is odorless, tasteless, colorless and extremely dangerous. It can cause poisoning or death in sufficient concentrations. Install carbon monoxide detectors in your home so you know if it shows up. Tools Varies depending on repair need, but can include: Anode Rod Garden Hose Bucket Towels Materials Varies depending on repair need, but can include: Replacement gaskets, seals, bolts Water heater blankets (insulation) A routine and thorough visual inspection will usually keep you informed about the state of your water heater. In particular, look for the following: A. Leaks in pipes or from the bottom of your water heater B. Aged gaskets or loose connections/screws that need tightening or replacing C. Corrosion on any part of the water heater, or of the pipes 2. Flush the Water Heater Once to Twice a Year Flushing the tank will get rid of sediment build-up and is one of the most important services you can perform on your water heater, to increase its longevity and efficiency. 3. Check the Snode Rod The anode rod sits inside a water heater and helps prevent corrosion. It needs to be replaced every three to five years, or more frequently if a high rate of corrosion is discovered. 4. Test the Temperature and Pressure (T&P) Valve Every Year A malfunctioning T&P valve can over-pressurization within the tank, causing major issues with performance and even—in extreme cases—causing the tank to explode. Replace it if necessary. 5. Make Sure Ventilation Is Working Properly If you have a gas water heater, check the venting system. There should be plenty of clearance around the vent pipe, no damage and a properly sealed vent connector. 6. Check the thermostat Setting Generally speaking, water heaters should be set between 120°F and 140°F. The lower the temperature, the more you will save on energy; the higher, the more efficient it will be for cleaning or sanitizing. Do not go lower than 120°F, as this will cause bacterial growth. 140°F and above can cause scalding. 7. Insulate the Water Heater and Hot/Cold Water Pipes Water heater blankets can be easily found at any hardware store and are used to insulate the tank and connecting pipes. Insulating your water heater will save on energy and money in the long-term, especially if the appliance is in a cool or drafty place, as it will reduce heat loss through the tank. 8. Lower the Thermostat Settings When You Leave Some water heaters have a "vacation mode" to lower the set temperature if you'll be leaving for a while to help you save on energy. You can also achieve this by adjusting the thermostat to a lower temperature point. Make sure to turn the water heater back on when you get home or suffer the consequences in the form of a cold shower. If you are uncomfortable performing any inspection or repair yourself, call a professional. Similarly, if you are unsure about how to interpret an issue (like a strange noise), ask a plumber for his or her assessment and advice. Most plumbers will affordably package yearly inspections with regular maintenance services, such as flushing the tank, which can save you money and time in the long run. If you have been doing DIY inspections for a while, it may also be a good idea to have a professional inspection done every three to four years just to make sure you aren't missing anything. Regardless of how it's done, it is absolutely essential to inspect a water heater regularly to avoid expensive or dangerous problems in the long run. Compare Quotes From Top-rated Local Plumbers Free, No-commitment Estimates If you perform regular inspections and maintenance on your water heater, you'll be able to stay ahead of many issues, but even a well-maintained water heater may develop one or more problems as a result of old age. Get to know these common signs your water heater needs repair: Leaks A leaking water heater is never good. A variety of possible reasons for leaking water heaters may be involved. Lack of maintenance, old age, faulty pressure relief valves, sediment build-up, any one of these things can cause water heater leakage. If you spot water dripping from your heater, make a closer inspection immediately. Inconsistent Hot Water Like above, this is a pretty obvious sign something is foul in the state of water heaters. It's a likely indicator of sediment accumulation in the tank, which can happen quickly in areas with hard water. Foul Smells or Bad-Tasting Water A metallic flavor to the water—or the scent of rotten eggs—can be easy to attribute to other causes, but you'll want to check your water heater just to be safe. These odors could indicate the presence of bacteria in your water heater—or that it's time to replace the anode rod. Tank Is Hot to the Touch Water heaters are insulated, so they should always be safe to touch, if a little warm. If your water heater is overheating, there may be problems with the ventilation or insulation or it may be time to flush the tank of sediment. 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If you have been doing DIY inspections for a while, it may also be a good idea to have a professional inspection done every three to four years just to make sure you aren't missing anything. Regardless of how it's done, it is absolutely essential to inspect a water heater regularly to avoid expensive or dangerous problems in the long run. Compare Quotes From Top-rated Local Plumbers Free, No-commitment Estimates Keeping your water heater in good shape isn't just about having hot showers; it's about making sure one of your home's key appliances runs efficiently and lasts as long as possible. Regular plumbing maintenance can save you from surprise cold showers and costly repairs. Here's a guide to some simple steps you can take to maintain your water heater and keep it running smoothly. Key Takeaways: Regular maintenance extends the lifespan of your water heater. Flushing the tank yearly prevents sediment buildup and checks the anode rod regularly to avoid corrosion. Always turn off power and water before maintenance. Seek professional help for persistent issues. Understanding Your Water Heater Types of Water Heaters When it comes to water heaters, there are a few different types you might find in homes. Tank-style water heaters are the most traditional, holding a large amount of hot water ready to use. They are tankless water heaters, which heat water on demand, so they don't store hot water at all. Heat pump water heaters are another option, using electricity to move heat from the air to the water. Lastly, solar water heaters harness the sun's energy to heat your water. Basic Components No matter the type, most water heaters share some common parts. You've got the tank for tank-style heaters, which is where the water is stored and heated. There's a heating element or burner that does the actual heating, and a thermostat to control the temperature. An anode rod is in there to prevent the tank from rusting, and a temperature and pressure relief (TPR) valve is a safety feature to keep things from getting too hot or pressurized. Lastly, there's a dip tube that brings cold water to the bottom of the tank for heating. Common Issues and Solutions Water heaters, like any appliance, can run into problems. If you ever notice rusty water, that could mean there's corrosion in the tank or pipes. Visible corrosion on the outside of the tank is also a red flag. Small leaks might not seem like a big deal, but they can lead to major damage if ignored. Performance-wise, if your water's temperature is all over the place, the heating element or thermostat might be on the fritz. Strange noises, like rumbling or popping, usually mean there's sediment built up in the tank. And if your hot water runs out faster than it used to, it might be time to service or even replace your water heater. If you're facing issues like these, it's probably time to do a check-up or call in a professional. Safety Precautions Before Starting Maintenance Before diving into any water heater maintenance, it's crucial to prioritize safety. Here are some steps to ensure you stay safe: Turning Off Power and Water Supply First things first, you need to cut off the power supply. For electric heaters, switch off the breaker. If you have a gas heater, turn the gas to the "off" position. Next, shut off the cold water supply. Never attempt to maintain or repair a water heater while it's still receiving power or water. Wearing Protective Gear Safety goggles and gloves are a must to shield your eyes and hands from hot water and any debris that might fly around. You might think it's overkill, but trust me, it's better to be safe than sorry. Ensuring Proper Ventilation If you're dealing with a gas water heater, make sure the area is well-ventilated. This is important to avoid the buildup of harmful gases. Open a window or use a fan to keep the air circulating. This simple step can prevent potentially dangerous situations. Essential Tools and Materials Gathering Necessary Tools Before you even think about getting started, make sure you've got all the right tools. Having everything ready means you won't have to stop midway to grab something you forgot. Here's a list to get you going: Choosing the Right Replacement Parts Sometimes, maintenance isn't just about cleaning or checking—it's about swapping out old parts. Knowing what to replace and having the right parts on hand can save a ton of hassle. Consider these: Using Safety Equipment Safety first, folks! You don't want to get hurt while trying to fix something. Here's what you'll need: Safety goggles: Protects your eyes from sharp edges and hot surfaces. Goggles: Keeps your eyes safe from any splashes or debris. With these tools and materials, you're well on your way to tackling most basic water heater maintenance tasks. 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Examining the Insulation and Wrap The insulation around your water heater plays a crucial role in keeping it efficient. Examine the tank's insulation wrap for any damage or gaps. Proper insulation helps prevent heat loss, so if you spot any issues, it might be time to repair or replace the insulation. Make sure the wrap allows easy access to the control switch and burner panel. Keeping your heater well-insulated can save you money on energy bills and extend the life of your appliance. Flushing the Water Heater Tank Why Flushing is Important Flushing your water heater tank is like giving it a fresh start. Over time, sediment and minerals like limescale can build up at the bottom of the tank. This gunk can make your water heater work harder than it needs to, which can lead to higher energy bills and even cause damage over time. Regular flushing helps keep your heater running efficiently, extending its lifespan and saving you money in the long run. 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Close the Valve and Refill: Once the water is clear, close the drain valve and turn the water supply back on. Turn the thermostat to a normal setting. Inspecting and Replacing the Anode Rod Purpose of the Anode Rod The anode rod is like the unsung hero of your water heater. It's a metal rod, usually made of magnesium or aluminum, that attracts corrosive elements in the water. This rod sacrifices itself to protect your tank from rusting out. Without it, your heater would have a much shorter lifespan. Signs It Needs Replacement How do you know when it's time to swap out your anode rod? Here are a few telltale signs: The rod is less than half an inch thick. It's coated with a thick layer of calcium. You notice a rotten egg smell, which can indicate the rod is no longer effective. If you spot any of these issues, it's time to think about replacing the rod. 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Without it, the risk of a tank explosion is real. Regular testing is crucial to ensure it's working properly. How to Test the TPR Valve: Turn off the power and water supply to the heater. Place a bucket under the discharge pipe connected to the TPR valve. This will catch any water that comes out during the test. Lift the Lever: Carefully lift the valve's lever to let some water out. You should see water flow freely and stop when you release the lever. Check the Flow: If the water doesn't come out or keeps flowing after you release the lever, it's time to think about replacing the valve. Regular testing and timely replacement of pressure relief valves are crucial for safety. When to Replace the TPR Valve Knowing when to replace your TPR valve can save you a lot of headaches. Keep an eye out for these signs: Continuous Dripping: If the valve drips continuously, it might be a sign that it's not sealing properly. Rust or Corrosion: Visible rust or corrosion on the valve is a red flag. Age of the Valve: If it's been more than three years since your last replacement, it's a good idea to install a new one. If any of these signs pop up, don't hesitate to get a new valve. It's a simple fix that can prevent bigger problems down the line. When replacing, make sure to drain the tank partially, unscrew the old valve with a pipe wrench, and screw in the new one securely. If you're unsure or uncomfortable doing it yourself, consider reaching out to a professional plumber. Adjusting Temperature Settings Optimal Temperature for Efficiency Setting your water heater at the right temperature is crucial for efficiency and safety. Most experts recommend keeping it around 120 degrees Fahrenheit. This temperature is hot enough to prevent bacteria growth, like Legionella, but not so hot that it causes scalding. Plus, every 10 degrees you lower the temperature, you can save up to 5% on energy costs. How to Adjust the Thermostat Adjusting your water heater's thermostat is a pretty straightforward task. Here's how you can do it: Locate the thermostat: Most water heaters have the thermostat on the lower front panel. If it's higher, the more efficient it will be for cleaning or sanitizing. Do not go lower than 120°F, as this will cause bacterial growth. 140°F and above can cause scalding. 7. Insulate the Water Heater and Hot/Cold Water Pipes Water heater blankets can be easily found at any hardware store and are used to insulate the tank and connecting pipes. Insulating your water heater will save on energy and money in the long-term, especially if the appliance is in a cool or drafty place, as it will reduce heat loss through the tank. 8. Lower the Thermostat Settings When You Leave Some water heaters have a "vacation mode" to lower the set temperature if you'll be leaving for a while to help you save on energy. You can also achieve this by adjusting the thermostat to a lower temperature point. Make sure to turn the water heater back on when you get home or suffer the consequences in the form of a cold shower. If you are uncomfortable performing any inspection or repair yourself, call a professional. Similarly, if you are unsure about how to interpret an issue (like a strange noise), ask a plumber for his or her assessment and advice. Most plumbers will affordably package yearly inspections with regular maintenance services, such as flushing the tank, which can save you money and time in the long run. If you have been doing DIY inspections for a while, it may also be a good idea to have a professional inspection done every three to four years just to make sure you aren't missing anything. Regardless of how it's done, it is absolutely essential to inspect a water heater regularly to avoid expensive or dangerous problems in the long run. Compare Quotes From Top-rated Local Plumbers Free, No-commitment Estimates Keeping your water heater in good shape isn't just about having hot showers; it's about making sure one of your home's key appliances runs efficiently and lasts as long as possible. Regular plumbing maintenance can save you from surprise cold showers and costly repairs. Here's a guide to some simple steps you can take to maintain your water heater and keep it running smoothly. Key Takeaways: Regular maintenance extends the lifespan of your water heater. Flushing the tank yearly prevents sediment buildup and checks the anode rod regularly to avoid corrosion. Always turn off power and water before maintenance. Seek professional help for persistent issues. Understanding Your Water Heater Types of Water Heaters When it comes to water heaters, there are a few different types you might find in homes. Tank-style water heaters are the most traditional, holding a large amount of hot water ready to use. They are tankless water heaters, which heat water on demand, so they don't store hot water at all. Heat pump water heaters are another option, using electricity to move heat from the air to the water. Lastly, solar water heaters harness the sun's energy to heat your water. Basic Components No matter the type, most water heaters share some common parts. You've got the tank for tank-style heaters, which is where the water is stored and heated. There's a heating element or burner that does the actual heating, and a thermostat to control the temperature. An anode rod is in there to prevent the tank from rusting, and a temperature and pressure relief (TPR) valve is a safety feature to keep things from getting too hot or pressurized. Lastly, there's a dip tube that brings cold water to the bottom of the tank for heating. Common Issues and Solutions Water heaters, like any appliance, can run into problems. If you ever notice rusty water, that could mean there's corrosion in the tank or pipes. Visible corrosion on the outside of the tank is also a red flag. Small leaks might not seem like a big deal, but they can lead to major damage if ignored. Performance-wise, if your water's temperature is all over the place, the heating element or thermostat might be on the fritz. Strange noises, like rumbling or popping, usually mean there's sediment built up in the tank. And if your hot water runs out faster than it used to, it might be time to service or even replace your water heater. If you're facing issues like these, it's probably time to do a check-up or call in a professional. Safety Precautions Before Starting Maintenance Before diving into any water heater maintenance, it's crucial to prioritize safety. Here are some steps to ensure you stay safe: Turning Off Power and Water Supply First things first, you need to cut off the power supply. For electric heaters, switch off the breaker. 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