

Home Maintenance 101
by
Kennewick Community
Education

About Us

- Design/Build firm
- Specialize in kitchens & bathrooms
- Locally owned & operated
- Established 1988
- Showroom in Kennewick



About me

- Warren Smith, CMKBD, CAPS
 - Certified Master Kitchen & Bath Designer
 - Certified Aging-in-Place Specialist
 - 30+ years experience in kitchen & bath remodeling

Owner / Operator of Kitchen & Bath
ReStylers

Plumbing Over view

- Water Supply System
 - Incoming water
 - Water conditioning
 - Water delivery
- Waste System
 - Toilets
 - Sink drains
 - Tub & Shower drains
 - Vents

Water Meter



- Know where it is.
- Most common location is at the street.
- Open the door & use it as a handle to lift off the lid.
- Wear gloves.
- Clean out spider webs.
- This valve is on, when holes line up, it's off.
- Valve will be stiff, large wrench will be needed.

Main Shut-off Valve



- Know it's location.
- Near the water heater.
- Inside a closet.
- Largest line in the home.



Whole House Filter

- Optional for most homes on city water systems.
- Good idea for home & community well systems.
- Particulate Filters.
- Change filter element annually.

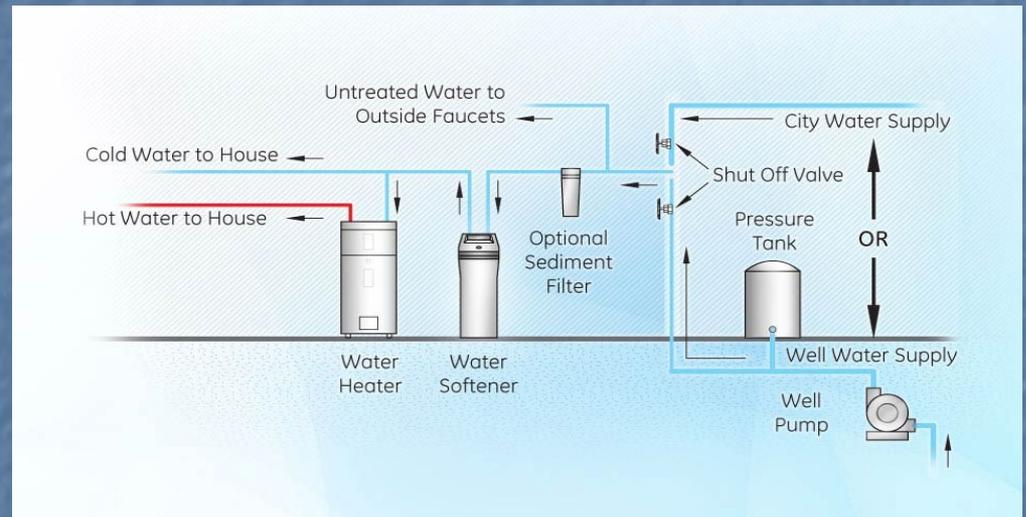


Water Quality

- City water systems filter, treat & deliver good quality water - regulated
- Kennewick Water – 100 -140 PPM – well & river blend – moderately hard
- Richland water – 70 - 243 PPM – well & river blend – moderately to very hard
- Pasco water – 70 PPM – river water - moderately hard

Water Softeners

- Reduce calcium hardness.
- Reduce water heating costs.
- Reduce maintenance costs.
- Operating costs are minimal.



Soft Water Benefits

Dramatically reduces hard water deposits on all plumbing fixtures and surfaces.

Faucet and valve internal parts last longer.

Reduces soap and detergent consumption.

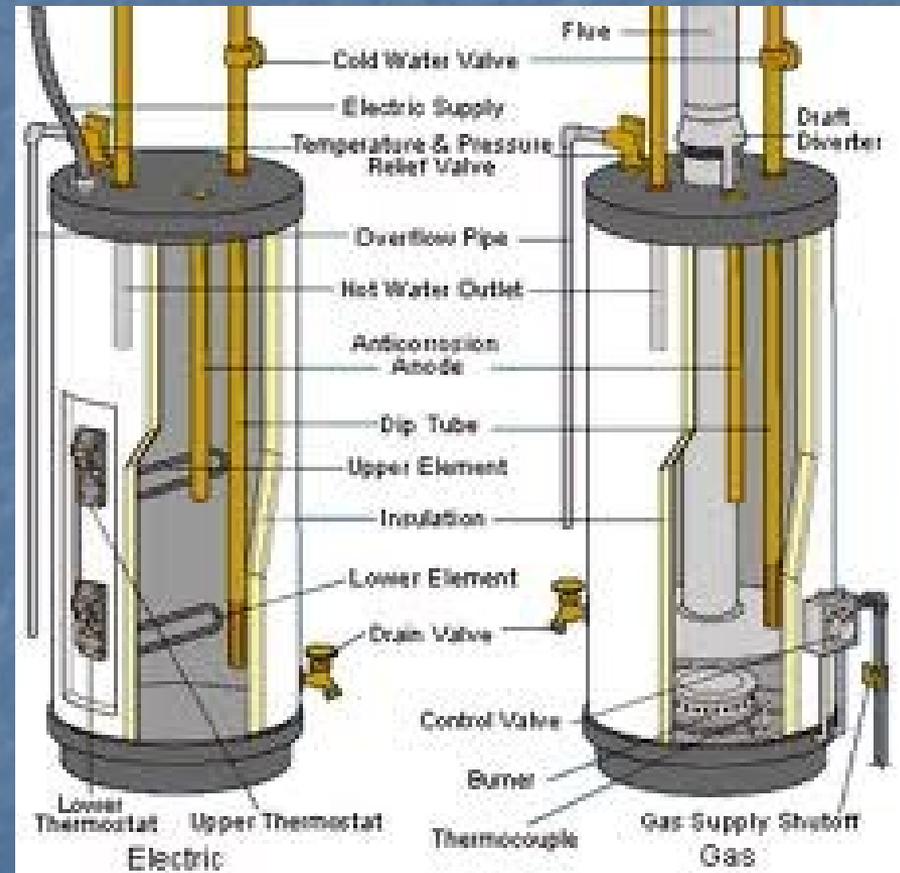
Easier on the skin.

Reduces water heating costs.

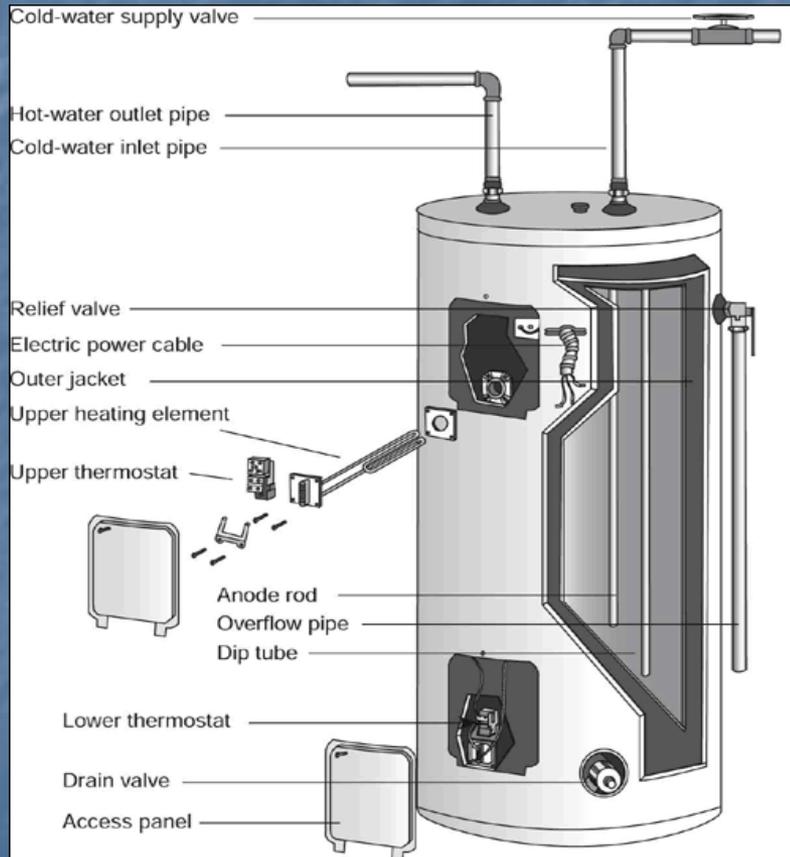
Sodium content of water is negligible.

Water Heaters

- The process of heating water creates sediment.
- Flush water heaters annually to prevent sediment build-up.
- Sediment reduces heating efficiency.

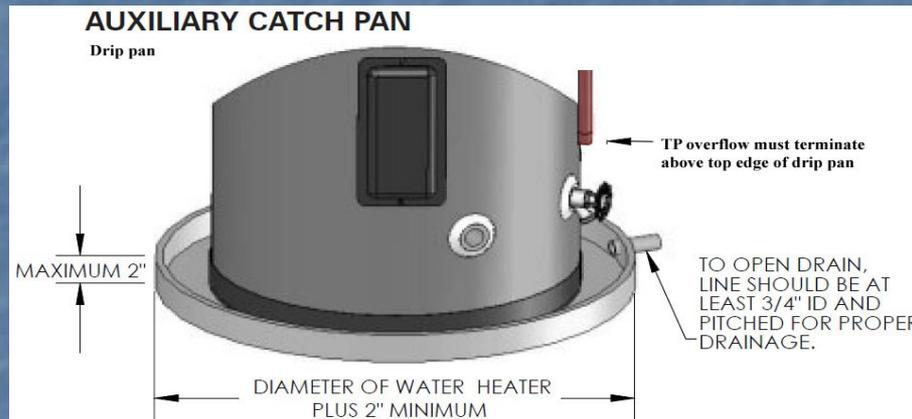


Electric Water Heaters



- Lack of hot water usually indicates a bad heating element.
- Test elements for continuity with an electrical tester.
- No continuity means a bad element.
- Drain tank & replace the element.

Water Heaters



- Water leaking from bottom of heater usually means a rusted through tank – replace the tank.
- Catch pan can prevent a flood.

Tank-less Water Heaters



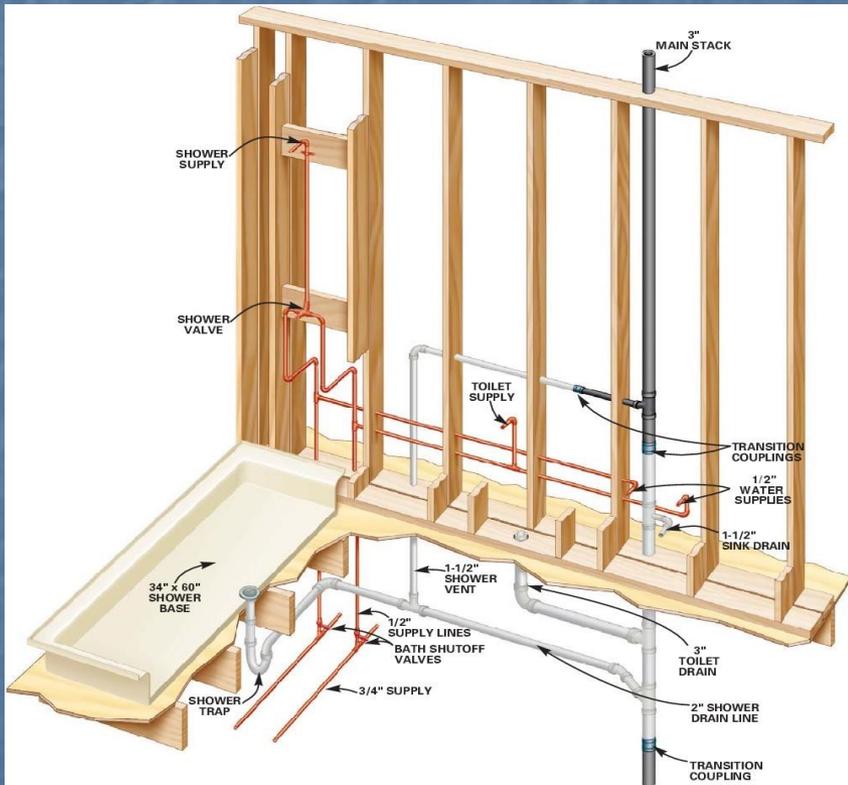
- On-demand system.
- Unlimited hot water
- More expensive up front.
- Lower operating costs
- Noisy – do not place in living areas.
- Gas versions are most efficient.

Water Alarms



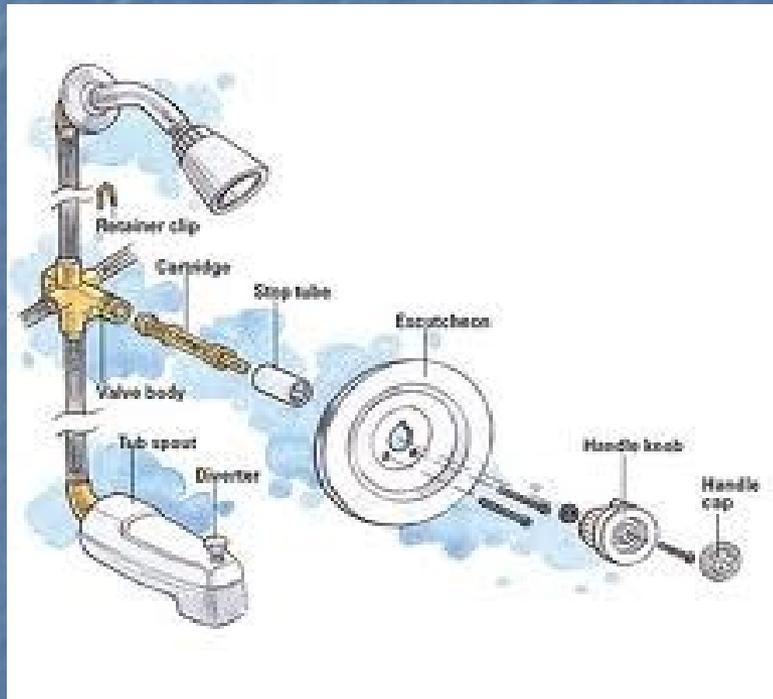
- Under \$10 ea.
- Battery operated.
- Place under sinks.
- On floor around water heater.
- In water heater catch pan.
- Cheap insurance.

Water Supply System



- Hot & cold lines normally run parallel through the walls and crawl space.
- Larger lines feed into smaller lines, which feed individual fixtures.

Shower Valves



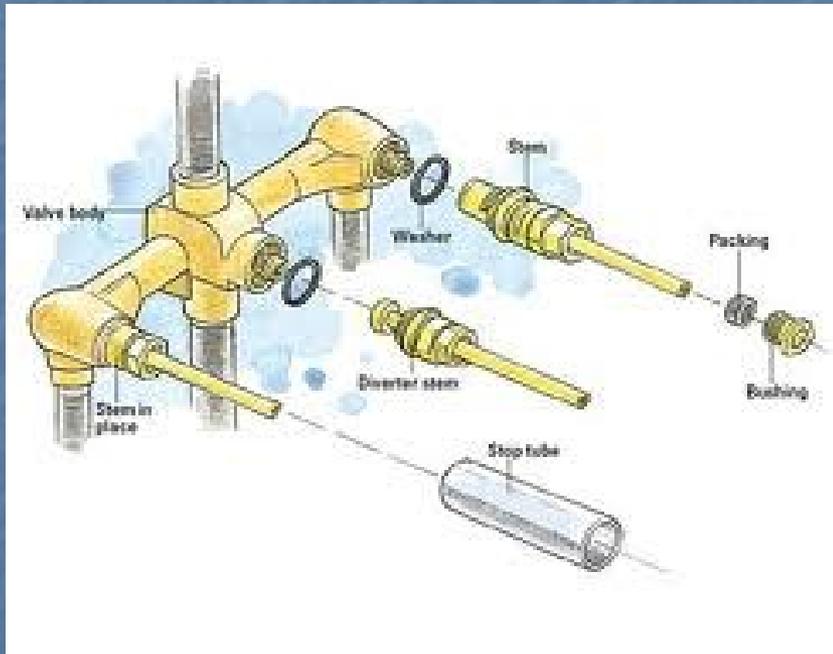
- Single handle valves are usually cartridge systems.
- The cartridge contains all of the moving parts.

Shower Valves

- The cartridge can be replaced for an all new functioning valve.
- The trim can be replaced for an all new valve appearance.
- Take a photo of the valve with the trim on and off for ID purposes.



Two Handle Shower valves



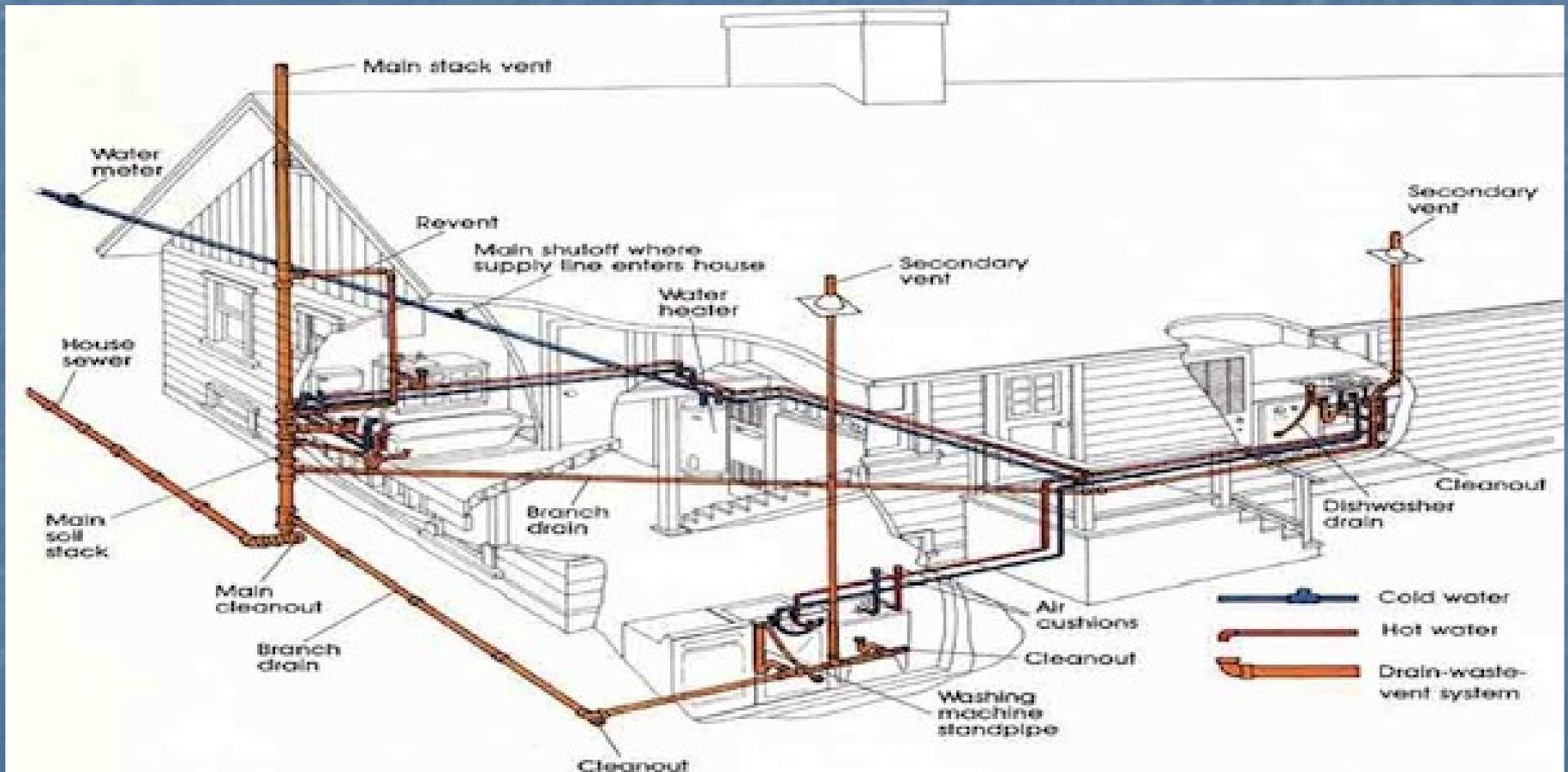
- Two handle shower valves involve more loose parts.
- Most parts are still available.
- Disassemble and photograph or take the parts with you.

Lavatory Faucets

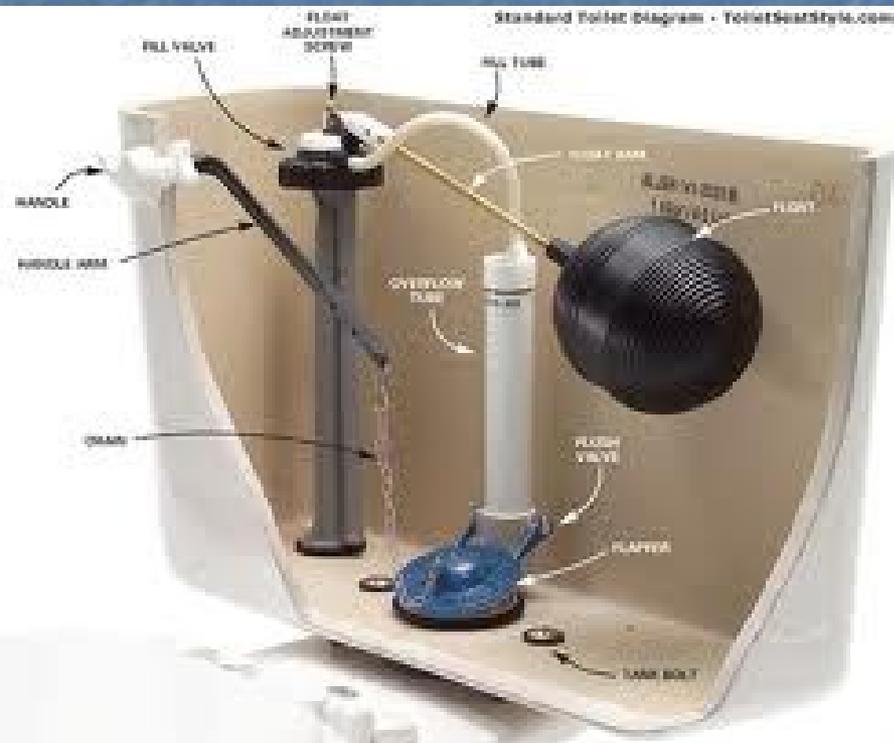


- Single handle faucets usually have replaceable cartridges and handles.
- Double handle faucets – same as double handle shower valves.

Residential Waste System



Toilet Maintenance



- Float valve fills the tank.
- Flapper keeps water in the tank.
- Flush handle lifts the flapper to release the water.
- Fill tube fills the bowl.

Toilet Problems

- If the toilet is running, replace the flapper.
- If the toilet won't flush, it's the handle or the chain.
- If the toilet tank is leaking, replace the bolt gaskets or check for a crack.



Wax Ring Leaks



- If water leaks at the floor.
- If the flooring is discolored or distorted.
- If the toilet wobbles.
- Replace the wax ring and toilet bolts.
- Use a jumbo ring or two regular rings if the flooring is built-up above the flange.

Basic Plumbing Tools



Drain Clogs



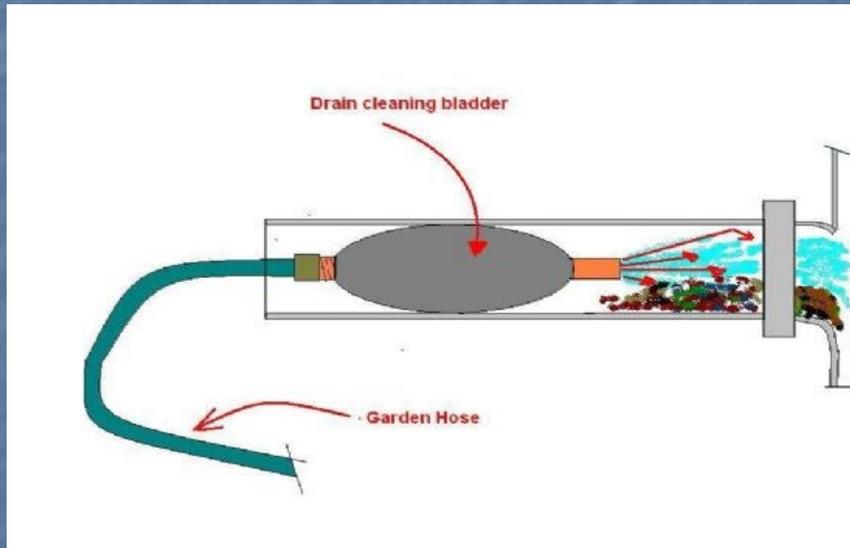
- Liquid products will sometimes work on a small drain just starting to get slow.
- Buy the cheap brand, they are all the same.
- Once it's really slow, it's usually too late for chemicals.

Plungers



- Many sizes and types.
- Use air & water pressure to blast loose clog.
- Very effective.
- Can take a lot of force.
- Can make a mess.

Drain Cleaning Bladder



- Hooks to a hose.
- Uses water pressure.
- Kits available with hose and adapter for lavatory faucet.
- Works often enough to have one on hand.

Plumbers Snake

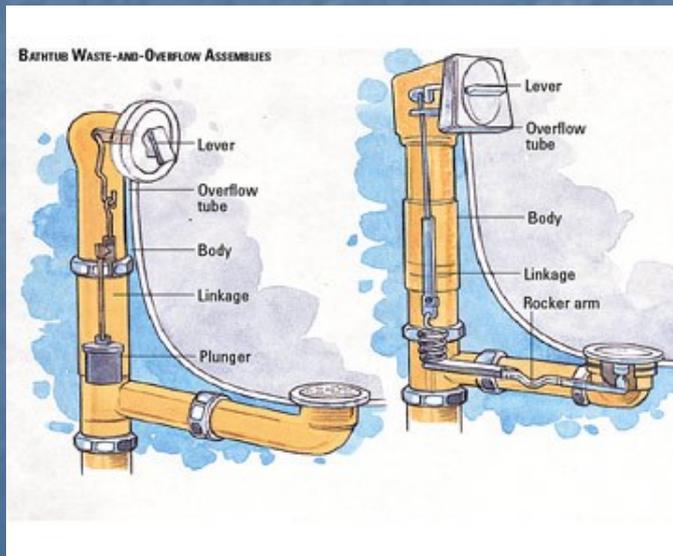
- Hand crank or drill-mount versions.
- Very reliable.
- Mechanically penetrate & break-up clog.
- Nastier to use.
- Home-owner models are 25' long.



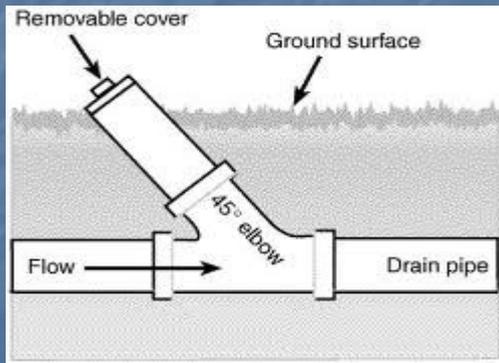
Hair Clogs



- Slow drains in bathrooms are almost always hair clogs.
- Long hair & soap combine to form clogs hanging from the drain grate.
- Use a hook or needle nose pliers to pull it out
- On tubs, pull the trip lever & plunger.



Clean-Outs



- Dedicated access for snaking drains.
- Any large removable plug usually indicates a clean-out.
- Always have a bucket handy.
- If drain lines are full of water – be careful.

Down-stream clogs

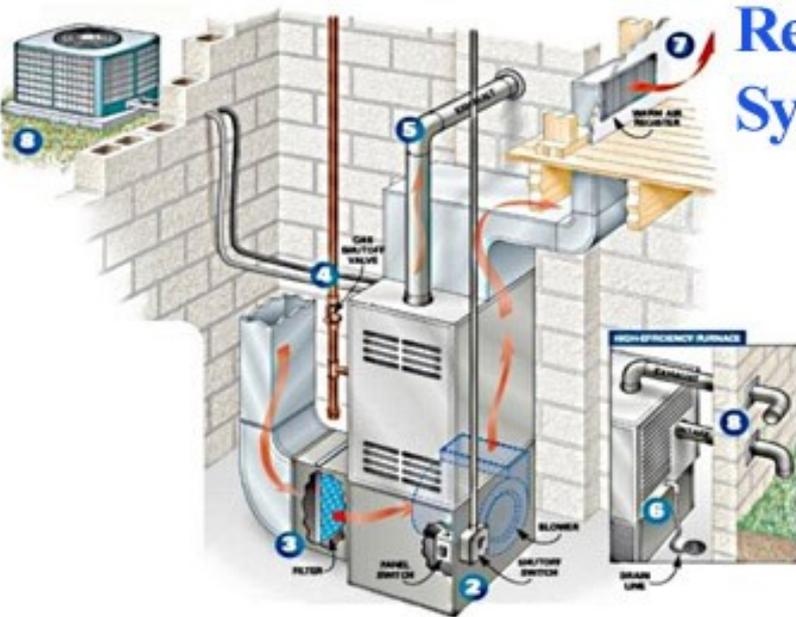
- If multiple fixtures are backed up, it is usually a larger line.
- Roots are often a problem for older underground drain lines.
- Larger power snakes are required – rent a power snake or call a plumber.
- Run a larger snake down a vent pipe for in-house clogs.
- Often a process of elimination.

Shower Maintenance

- Most shower cleaning products contain some mild acids.
- Even mild acids can damage metal finishes.
- Daily squeegee use keeps all surfaces looking nice and dramatically reduces the need for acids and abrasives.
- Shower floors need to be able to stand up to abrasives.



HVAC System Overview



Residential HVAC System



Types of Air Filters: Cheap

Panel Filters (aka throwaway filters)

- Low Cost, designed to remove coarse contaminants (lint and dust) from the air.
- Typically made out of fiberglass or polyester.



Types of Air Filters: Good

Washable Filters

- Can be cleaned and reused.
- Replacement every few years.
- Protect furnace motor and trap larger particles.
- Many are hypoallergenic

Type of Air Filter: Better

Pleated Filters

- Also disposable but last longer than panel filters.
- Large surface area to capture smaller particles.

Type of Air Filters: Best

Electrostatic Filters

- Can be cleaned and reused.
- Electrostatically charged fibers provide the highest level of filtration for small particles.



Sprinkler Systems

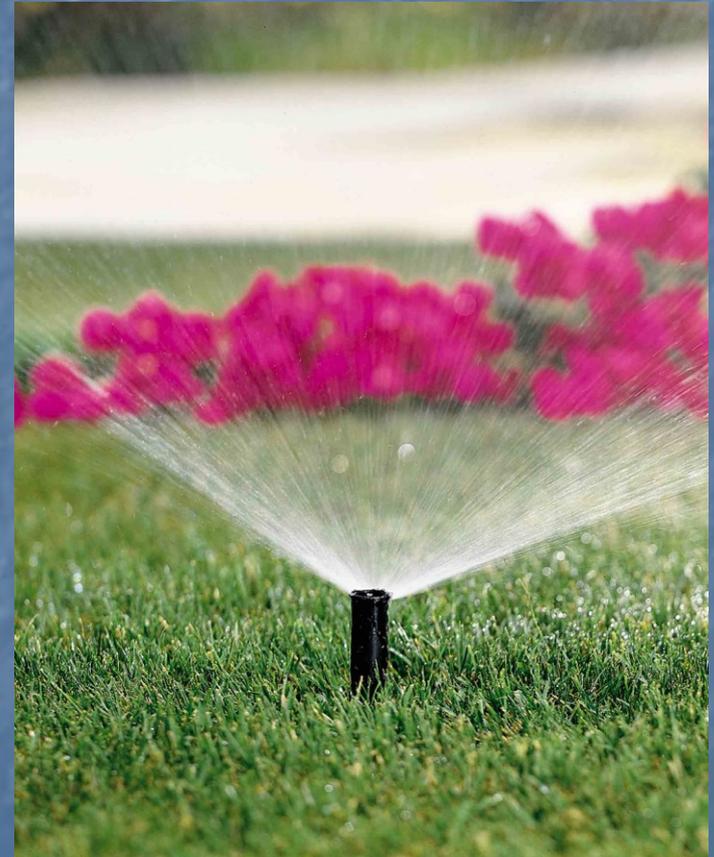


Spring Time Sprinkler Check

- Check sprinkler heads are all still level with ground.
- Trim grass around sprinkler heads.
- Turn on valve: for ball valve turn handle parallel to supply line. For gate valve, turn wheel counter-clockwise until wide open.
- Tighten petcock to prevent water drips.
- Turn on controller and run each station for about 2 minutes to check each is working properly.

Winterize Sprinkler System

- Turn off main shut-off valve to supply line.
- Turn off controller or set to “rain mode”.
- For above-ground gear-drive rotor sprinklers remove rotors and shake out to drain water.
- For above-ground pipes, valves or backflow preventers insulated them with foam insulating tape.



Winterize Sprinkler System

- If you have a manual drain, open manual drain valve. Then open either the “boiler drain valve” or “stop and waste valve”.
- Test all valves for remaining water. Close all valves once fully drained. Leave petcock open.
- For automatic drain valves, open them by turning off main shut-off valve and activating your sprinkler.
- Repeat previous drain steps for a manual drain.
- Consider having your sprinkler system “blown out” by a professional.

Kitchen Maintenance

- Drains and Food Disposals
- Appliances
- Surfaces
- Flooring
- Cabinetry

De-Gunk Your Drain



- Slowly pour boiling water to loosen built up sludge.
- Follow up with sink cleaning.

Sink Cleaning

- Stainless Steel and Porcelain: baking soda will remove stains and soap scum.
- Copper and Stone: Avoid chemicals, use mild dish soap and pat dry.

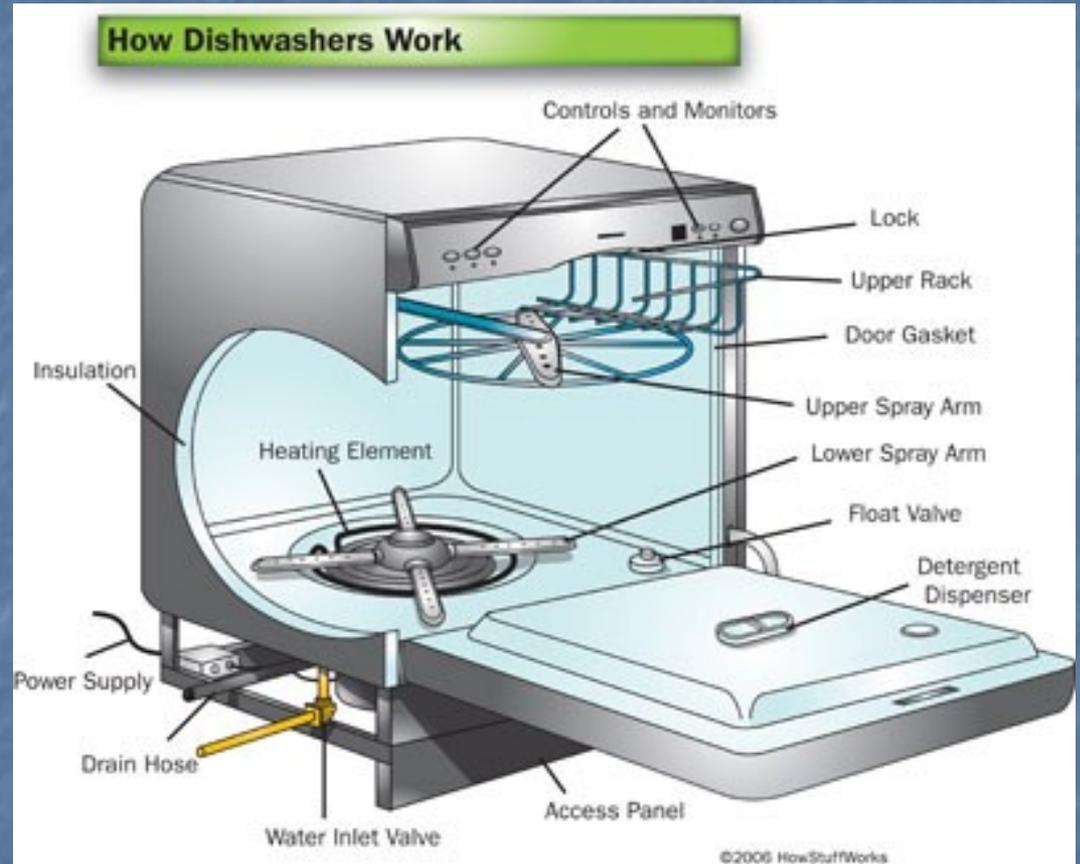
Refrigerator/ Freezer

- Clean dust from condenser coils.
- Make sure drain hole is clean and that drip pan doesn't smell.
- If you have an ice maker, check to see if water filter needs replacement.
- Make sure cold setting is set to medium to avoid defrost problem.



Dishwasher

- Remove spray arms and clean debris from holes.
- Clean filter basket at bottom of dishwasher.
- Clean interior: pour 1 cup of white vinegar in bottom and run a complete cycle .
- Check door gasket for cracks or tears.
- Check that hose connections are in good condition.



Oven and Stovetop

- Wipe down stove top with each use.
- Periodically use cleaning function on oven.
- No cleaning cycle? Leave shallow pan of ammonia in oven overnight and wipe down in morning.



Other Appliances

Microwave

- Combine a few cups of water with a squirt of lemon juice.
- Heat until boiling to steam clean inside.
- Wipe down with cloth.

Coffee Maker

- Run $\frac{1}{4}$ cup of vinegar and 2 cups of water like you were brewing coffee.
- Brew with just water once or twice to rinse machine.

Stainless Steel



- Always clean with the grain of your appliance.
- Stainless Steel Magic & Sprayway Stainless Cleaner work great.
- Spray on the cloth, then wipe on appliance.
- Eliminate streaks with a microfiber cloth followed by paper towel.

Countertop Surfaces: Tile



- Clean tile and grout with dishwashing detergent and cloth or sponge.
- Avoid acid-based cleansers.
- Wipe up spills immediately to avoid mold.
- Check grout for cracks and chips every 6 months.

Countertops

Laminate

- Clean with dishwashing detergent and cloth or sponge.
- Countertop Magic works well.
- Avoid letting water stand near seams to prevent buckling.

Solid Surface

- Clean with dishwashing detergent and cloth or sponge.
- You can use mildly abrasive cleanser (like Soft Scrub) for stubborn residue and to buff out minor scratches.

Granite Countertops

Do I need to re-seal it?

- Granite is usually sealed when installed but may need resealing after several years.
- Test seal by putting a few drops of water on top.
- If wet area becomes darker within a few minutes then stone is absorbing water and time to reseal.

How do I re-seal it?

- Clean and dry top.
- Apply granite sealer as per manufacturers directions and leave on for 5 minutes.
- Remove sealer with dry cloth and buff with microfiber cloth.

Cheap Sealers = Short Term Durability

- Pick a solvent (oil) based, high-quality sealer.
- A high-quality sealer should last 10-15+ years.
- A cheap box store sealer will need to be reapplied often.



Wood Countertops



- Check for scratches.
- Repair scratches with light sanding, 120 grit sand paper.
- Wash top with mild detergent, water and soft cloth. Dry thoroughly.
- Apply natural mineral oil based sealer monthly.

Floor Care

Porcelain & Ceramic Tile

- Clean up spills quickly to avoid staining.
- Use soft sponge or rag. Avoid steel wool or other abrasives that can scratch.
- Mop once a week with all-purpose floor cleaner.
- Avoid bleach or ammonia based cleaners which can discolor grout.



Linoleum or Vinyl Floor

- Sweep or vacuum weekly.
- Clean up spills immediately.
- Mop every several weeks with mild detergent. Dry with clean cloth after.
- If it looks dull, apply linoleum- or vinyl-safe polish in 2 thin coats.
- For linoleum, apply acrylic floor sealer every year or two.

Wood Floors

- Prevent scratches: felt pads on furniture legs.
- Sweep and vacuum regularly.
- Use dry mop and clean with vinegar and water.
- Avoid silicone-based polish, oil, wax and ammonia.
- Clean up spills quickly.



Additional Resources

brightnest

- www.brightnest.com
- Features
 - Home Maintenance How-To Articles.
 - Create an online profile and schedule home maintenance reminders, create a “homefolio” and store paint colors, appliance owner’s manuals, remodeling project details, etc.