Main Drain Pipe
Just as your body requires attention to prevent illness and maintain health, so does your home - especially when it comes to ensuring your home's main drain system keeps on doing its job. The plumbing and drain experts at Master Plumbing and Leak Detection offer the following at-a-glance tips, plus some easy-to-follow steps you can take throughout your home to help prevent major, main drain failure in the future!

DMV: The Drain, Waste, and Vent System
What comes in must go out, and half of plumbing is about getting rid of waste. Drains, waste, and vents - commonly called the DWV system - are the last visible and least glamorous elements of your home's plumbing. But this "tree" of branching pipes that carry off liquid and solid wastes is just as important as the incoming system. If safely removes waste for treatment and provides a critical barrier that keeps sewer gases and bacteria from entering your home. Chances are that you'll never have to deal with your DWV system, apart from clearing the occasional clog. But when it's time to extend, improve or repair your plumbing systems, you'll need to understand it.

Drain and Vent Lines
The trunk of the DWV tree is the soil stack; all drains and vents feed into it. Every plumbing fixture must have a drain and vent - an upward extension of its drain line that runs up through the roof and is open to the outer air.

Vents

- Vents allow sewer gases to flow up the soil stack and exit the DWV system without coming into your home through plumbing fixtures.
- When a fixture is far from the soil stack, it may have a separate vent line.
- These distances, and the needed vent diameters, are closely regulated by codes. So always check before you add or re-plumb a fixture.

Drain Lines
Drain lines are classified as soil lines or waste lines.

- Soil lines carry both liquid and solid wastes, such as human wastes form toilets and garbage from kitchen sinks.
- Waste lines carry only liquid wastes, and are connected to showers and lavatories.

The Main Drain
The main drain is the pipe from your home to the city sewer or septic system. The most common blockage is caused by roots from surrounding trees and bushes. Master Plumbing and Leak Detection is prepared to provide any solution to your problem, from blockages to repair or
replacement of your main drain.

Common Causes:

- Roots
- Sludge build-up
- Foreign object
- Damaged pipe
- Belly
- Misaligned
- Collapsed

Recommended Solutions:

- Open by cabling
- Clean by jetting
- Inspect with in-line sewer camera to identify the problem
- Repair or replace

Recommended Prevention:

- Regular cabling to reduce build-up
- Install clean out for access

How Vents and Traps Work
At first glance, drains seem to work even without traps and vents. Plenty of do-it-yourself leave out these key components, without understanding their importance.

- Traps hold enough water to form an airlock against sewer gases.
- Vents equalize pressure to aid drainage and allow sewer gases to escape to the outer air
- Without a properly functioning trap and vent, high or low pressure in the drains may create unsafe conditions. If you suspect improper venting, schedule an appointment with Master Plumbing and Leak Detection.

*High Pressure*

- Without venting, high pressure in the drains may force sewer gas out through traps and toilets.
- You'll probably hear gurgling and bubbling in the fixtures.
- You may also smell the vile bacterial odor mixed with sewer gas.

*Low Pressure*
• Without proper venting, lower pressure in the drains may cause siphoning in the traps whenever you drain fixtures.
• If the traps are dry, sewer gas vents directly into the house.

How Cleanouts Work

• Drain lines have removable cleanout plugs fitted to pipe tees or wyes to facilitate cleaning.
• You'll usually find a large cleanout near the connection of the soil stack and sewer line. This cleanout is more efficient way of rooting out the sewer line.
• To clear internal house drains, smaller cleanouts are located at least every 100 feet in modern plumbing systems. You may find such cleanouts on outer walls at the ends of plumbing runs or in the basement.
• In older homes, DWV connections were made with molten lead, which required special tools and training. Today, no-hub couplers have largely done away with this method of joining cast-iron pipes. If your home needs DWV repairs or improvements, you'll find these to be real timesaver - not to mention the way they help you avoid exposure to molten lead.

What You Can Do to Avoid Problems!
Here is some preventive maintenance steps that will help you guard against future problems with your home's main drain.

Kitchen Sink

• Reduce the amount of cooking grease and fats going down the drain.
• Wipe greasy pans with a paper towel before washing.
• Use a degreaser regularly to prevent grease and sludge build-ups.

Garbage Disposer

• Follow manufacturer recommendations for proper usage.
• Run ample water before, during and after disposer use.
• If the garbage disposer is not functioning properly, depress the unit reset button, typically located at the bottom of the unit.

Bathroom Sink

• Run ample water washing soap, shaving cream and toothpaste down the drain.
• Use degreasers or enzymes to prevent build-up of body oils and soap residue.

Tub or Shower
- Install strainer to catch hair and foreign objects.
- Use degreasers or enzymes to prevent build-up of body oils and soap residue.

**Toilet**

- Avoiding storing or placing small objects on the toilet tank or around the toilet.
- Keep the seat cover closed.

**Laundry**

- Keep your washer's lint trap clean.
- Install a lint catcher on the laundry drain hose and clean it regularly.
- Use degreasers or enzymes to prevent build-up of body oils and soap residue.

**Water Heater**

- Follow manufacturer recommendations for proper use.
- Drain regularly according to manufacturer recommendations.
- Inspect for signs of leakage and rust.
- Listen for unusual noises.

Because it’s really never seen, your home's drain can easily be forgotten. That is, until it's not working properly! If you need help, schedule an appointment with Master Plumbing and Leak Detection.