



# The Commercial Inspector

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## ask the inspector

**Q. I'm hearing a gurgling sound coming from somewhere in my building's plumbing system. What is causing this noise?**

A. The gurgling sound noise you hear from a building drain might mean there's a problem with the drain system itself, or it could signal a number of other issues.

A drain system needs a certain amount of air or venting to allow water flowing in the drain to move efficiently. When not enough air can be drawn through the vent, a gurgle can occur. Common vent issues include the following:



- » The diameter of the vent pipe may be too small for the fixture(s) it is venting.
- » The vent stack may not have extended to the exterior of the building. This may cause a dangerous methane gas buildup and could create an explosive situation.

## snapshots from the field

What Is This Picture?



- A ) The clean-out cap for this sewer line vent is missing.
- B ) This sewer line vent is clogged and needs to be cleaned.
- C ) Nothing, it's a normal vent for the sewer line.
- D ) The firehose needs to be hooked up.

*( answer on the back )*

- » The vent is plugged by a nest or an animal seeking heat and unable to get out of the pipe.
- » An undersized vent stack may freeze over in the winter in cold weather. Drain systems are usually tested when installed using an air test. All lines are capped off for the test, the cap on the pipe to the exterior may be left in place and not allow proper air admittance.

Gurgling drains can also be caused by a partially blocked waste line. This is most common in a septic system.

If you hear gurgling in the drain system, call in a plumbing contractor to determine the source of the problem.

## maintenance matters

### Fix Leaks as They Happen

Does one of the following sound familiar?

- » Leaky faucets
- » Leaky pipe under a sink
- » Leaky toilet in a bathroom

If any of these maladies is plaguing your property, then it's time to call a plumber. Unfixed leaks in a kitchen or bathroom can lead to bigger problems, such as flooding or leaking pipes that damage ceilings and create the potential for a mold problem.



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## for your information

### The Benefits of Post-tension Concrete

In 1867, a French florist named Joseph Monier was simply trying to make a stronger flower pot, but by reinforcing bars in cement he ushered in a new era of construction.

Since then, the building industry has furthered concrete technology by using post-tension cable in slab construction. Post-tensioning is a method of strengthening concrete by using high-strength steel strands or

cables, typically referred to as tendons. Slabs constructed using the post-tension method can be built thinner, which can reduce construction costs and curing time.

This type of construction creates a tight grid of steel cables that actively supports the slab. Unlike conventional “inactive” rebar, which only helps keep the slab intact after cracking, post-tension tendons continually contribute to the structural integrity of the slab.

Post tensioned concrete can be bonded or unbonded. Bonded post tensioned concrete is the most common method; the concrete is placed around plastic, aluminum or steel curved duct to follow the area where tension would otherwise occur. Tendons are fished through the duct, and the concrete is poured.

Once the concrete has hardened, the tendons are tensioned by hydraulic jacks that react against the concrete member.

When the tendons have been stretched sufficiently they are wedged in position to maintain the tension after the jacks are removed. This transfers the pressure to the concrete. The ends of the tendons are then grouted.



Unbonded tensioning is used in the construction of various bridges, both after concrete is cured and by the assembly of prefabricated sections.

Post-tension concrete's combination of structural integrity and thinner pads allows for many practical applications:

- » Buildings can have thinner floors but retain comfortable ceiling heights to reduce total height and weight load.
- » More interesting and creative structures can be used in event stadiums and ball parks.
- » Parking garages can be made stronger, more functional and less expensive to build.

## Did You Know?

### Retention Pond Maintenance

Studies have shown that retention basins and gardens can be very effective at removing pollutants and can provide necessary storage volumes during larger storm events. Maintenance of a retention garden or pond is usually the property owner's responsibility. Government guidelines recommend that these areas be inspected on a regular basis to ensure that the area is properly maintained, to check for obstructions or damage, and to remove trash and debris. Vegetation around and in the gardens and ponds needs to be controlled and cared for properly.

### Snapshots from the field

*The correct answer is A. The photo shows a sewer line vent that is missing the clean-out cap.*