

# Cravens Home Inspection Service L.L.C.

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## Sink or Tub Drain Smell Like a Sewer?

If your sink or tub drain smells like a sewer or produces a gurgling sound, the condition is most likely related to the plumbing “trap” located under the sink, which is designed to prevent the escape of sewer gases into the room.

The trap keeps sewer gas out by “trapping” water in the U-shaped portion of the pipe, forming a water seal. The water blocks the movement of sewer gas and prevents it from flowing up through the trap, the sink and into the room.

The sewer-like odor or gurgling sound is most commonly experienced with S-traps, as opposed to P-traps. S-traps, even though they are no longer permitted to be used in new construction, are prevalent in older homes.

The problem with an S-trap is that the water seal may be lost due to siphonage. The action of the water discharging into the drainpipe removes the air from that pipe and thereby causes a negative pressure, or vacuum, in the drain line, resulting in siphonage of the water from the trap. Once the water seal is lost, sewer gas can flow freely into the room.

Siphonage is unlikely when P-traps are used. The horizontal portion of the trap is connected to a plumbing vent pipe, which extends through the roof, so there is always atmospheric pressure on the downward side of the drain.

