

# Electrical Tingling in the Plumbing!

Last Updated: Thursday, March 28th, 2013, Created: Saturday, December 30th, 2000

Here is a question and answer that you might find interesting. "When we take a shower in the second bathroom of our house we get a mild tingling when we touch the fixtures that the water comes out of. Our guest and family are really funny. They think that the tingling is because they feel invigorated by the shower. We tell them that they must step out of the shower and use a dry towel to turn off the taps. With a multi-tester I have checked to see if there is a current running from the drain and the fixture handles and head. There most definitely is a current. It is small but apparent. The shower is on the first floor. The house is in the country. Water comes from a well. Hot water and heat is provided by an oil furnace and hot water heater. The house is built on a slab. The first floor, where the shower that lights up your life, is on the ground floor. The second floor bathroom is the one we always use. There is no electricity running from the shower head and taps to the drain on the second floor. But in the bathroom on the first floor there is an electrical current, even though mild, running from the shower head, taps (on the shower in the bathroom on first floor) to the drain, and laundry tub faucet and taps (on the first floor in room next to the first floor bathroom). How do I go about finding the solution!! I know this is shocking but I asked our Hydro Man and he was at a loss as to what could be the matter." D. Holman It sounds like you know more than the Hydro man -- at least you have a good investigative head on your shoulders. Your tester tells you that there is a current between the supply piping and the drain, at least in part of the house. Why there and not elsewhere, could well be that the current is very weak, or that there is some plastic piping between the two sections that stops the flow of electricity. Your drain will go right down into the septic tank, by way of many feet of soil, so it is most likely the ground part of your unwanted circuit. So where is the electricity getting into the supply line? I can think of several different possibilities, all of which you can test out easily with your multi-tester. Most residential electrical systems are grounded to the plumbing system, although it is also a good idea to be grounded to a grounding rod, about a four foot rod driven into the ground and the main electrical box, the casing itself, is then wired to the grounding rod. The advantage of this is that it is rarely interrupted by accidental plumbing. If your mains box is grounded to the plumbing pipe, is that connection continuous to the water pipe that goes to the well. Possible problems, the pipe to the well is plastic, or some insulation (even Teflon tape) breaks the flow from the grounding connector to the soil. Check your multi-tester from the electrical box casing to where the water supply pipe emerges from the dirt -- assuming it is metal. If you have a current evident here, install a grounding rod. Some plumbing appliance, like a clothes washer, has current flowing to its casing which goes to a water pipe, or in a very weak sense, right through highly mineralized water inside a plastic pipe. This could be a short circuit to an ungrounded casing, or the wires are reversed, connecting the fused line to the appliance casing and the return line to the fuse. Again, measure for current flow from the appliance casing to a drain connection. Unplug the appliance and see if the current stops. If so, check out the wiring. Now, those are my guesses. Work on this and please write back again. I want to know if you find anything and if you do manage to solve the problem, exactly what it was that solved it. We all learn together. Click here for information on the LEGALITY OF DIY ELECTRICAL WORK.Â

**Keywords:**

Common Questions, Shock, Mystery, Sink, Plumbing, Electrical