



Washing Machine Hoses: What's the Risk?

Water damage caused by leaking home appliances is one of the top five causes of home insurance claims, according to the Institute for Business and Home Safety. More than half the water damage claims related to washing machines were from broken water supply hoses. These incidents are also very costly, with the average claim running to more than \$6,000.

Why Do Washing Machine Hoses Break?

- **Age.** Over time, all washing machine hoses will wear out. The IBHS study showed that failure rates increased dramatically in hoses over five years old; the average age of failed hoses was 8.7 years. More than half of failures occurred before eight years, and nearly 80% failed before ten years.
- **Materials.** Many washing machine hoses are made of reinforced rubber which loses resiliency as it ages, making it subject to cracks, leaks, and bursting.
- **Installation Errors.** Improper installation can damage the hose and hasten its failure. The most common installation error is failure to leave sufficient room to prevent kinks in the hose, particularly near the valve connections, as described below.
- **Manufacturing Defects.** Cracks, crimps, or blockages in the line will also cause premature failure.

When hoses or connections are weak or faulty, the normal pressure of water in the system will break the hose or coupling, sending water flooding out. In a typical home, water will spill out of a single hose at a rate of about 650 gallons per hour.

Inspection Can Help Prevent a Flood

The best way to prevent failure of washing machine hoses is to inspect them once a month or so and replace them *before* they fail. Inspect both hot and cold water lines and their connections. Look for:

- **Failure Signs.** Look for signs of deterioration or imminent failure, such as blisters, bulges, or bubbles; cracks; unraveling; discoloration; or bends or kinks, especially near the connections.
- **Leaks.** Leaks may also indicate imminent failure. Check for moisture, drips, rust, discoloration, or leaks on or around hoses and connections or in the catch pan (if present).

Replace Defective or Aging Hoses

If inspection reveals any of these warning signs, or if leaks are present, replace the hoses (and the fittings if necessary) immediately. Do not delay.

Even if they do not show obvious signs of deterioration or wear, *all* hoses should be replaced every three to five years. Deterioration may occur inside the hose or fitting and may not be visible during an inspection.

New hoses are inexpensive (\$10-\$20) and easy to install. Unlike older hoses, newer rubber hoses are reinforced with braided rayon or polyester mesh to increase strength (but make sure the label says "reinforced"). Reinforced steel braided hoses, made of flexible plastic hose in a flexible mesh of stainless steel wire, may be a better option. Called "burst-proof" or "burst resistant," these cost about the same as rubber, but are considered more durable and less likely to fail.

Sound Installation Can Minimize Risk

- **Leave Space for Hoses.** Leave at least four inches of space between the washing machine and the wall to minimize kinking near the valve connection, where sharp edges within the hardware can cut into the inside of the hose. Some hoses have metal elbows which prevent too-tight bends
- **Handle Connections with Care.** Ensure that the valve connections are securely fastened, but do not over-tighten, as this may damage the hardware or hose.
- **Install a Leak Sensor.** When a leak or overflow activates the sensor, the shut-off valve closes automatically to stop the flow of water.
- **Install a Water Flow Sensor.** A flow sensor, installed in the main water line, sounds an alarm when water flow for a given time exceeds the normal flow.
- **Install a Catch Pan.** Under the washer, install a catch pan with a drain connected to a waste line, sump pump, or other means of removing water from the building. The catch pan will contain small leaks and direct the water into the drain line.

Common Sense Precautions

- **Be Attentive.** Use the washing machine only when someone is at home. The IBHS study confirmed that washer failures that occurred when homeowners were away resulted in 150% greater losses.
- **Turn Off Water Between Uses.** To relieve water pressure in the hoses, turn off the water supply when the machine is not in use or when you will be away.
- **Consider Gravity.** Install the washing machine on the building's lowest floor to minimize water damage should a leak occur. The IBHS reports that leaks from machines located above the lowest floor resulted in 28% greater losses.