



Identifying Water Heater Failure Risks

Water heater failures continue to be one of the top five sources of residential water losses for the insurance industry, costing an average of \$4,400 per incident.

This is the first in a series of reports by the Institute for Business & Home Safety that will alert members to emerging research into the identification of property loss sources and offer solutions.

In this report, IBHS identified key findings that could help policyholders prevent water heater-related losses, including the important roles of the tank's life expectancy, location and proper maintenance.

Knowing how and when to begin maintaining a water heater can help reduce the chances of experiencing a loss or lessen its severity. The report found:

- The rate of failure resulting in a claim begins to dramatically increase for a water heater beginning at age 5.
- By age 12, nearly three quarters of water heaters have failed.
- Water heaters up to 20 years old accounted for 95% of claims in this report.

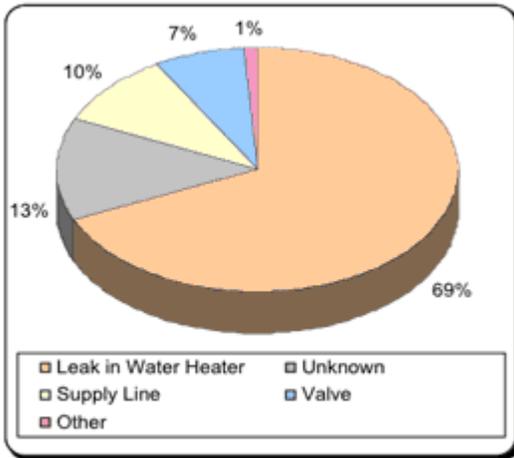
Proper maintenance includes inspecting the water heater's anode rod, a device installed to help prevent tank corrosion, and flushing sediment from the tank. It pays for a homeowner to know where the water heater is located and to watch for signs of failure.

Recommended maintenance includes:

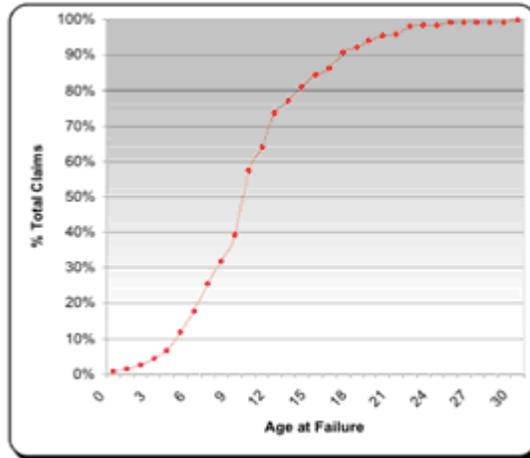
- Having a professional plumbing inspection of the anode rod at least once every two years and annually once the warranty has expired. The rod will eventually corrode and leave the tank vulnerable to damage.
- Removing sediment by flushing the tank every six months. Sediment will build up faster in areas with hard water.

After a review of 700 water heater claims from multiple insurance companies, IBHS found that 69% of the time leaking or bursting tanks were the cause of the failures. A water supply

line failure was a less frequent cause, but it resulted in 60% higher claim severity.



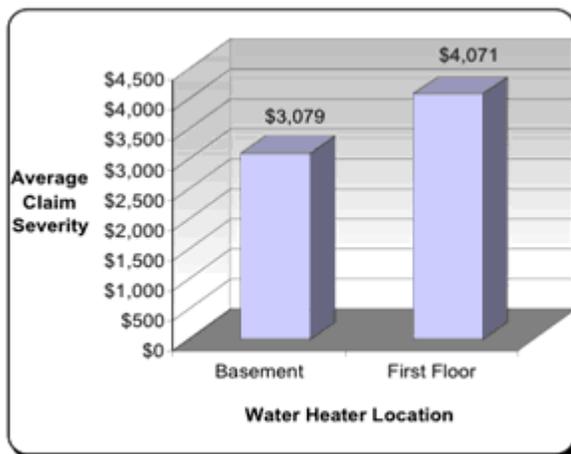
Water Heater Failure Mode Claim Frequency



Water Heater Leaks/Bursts by Age at Failure

The report compared claims by dividing states into northern and southern regions and identified a trend in losses.

In the south, 69% of all water heaters that failed and resulted in a claim were located on the home's first floor, likely within reach of high-dollar items such as furniture. Consequently, these failures caused 33% greater losses than those resulting from water heaters in basements, which are more commonly found in northern region homes.



Water Heater Severity by Loss Story Location