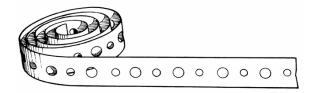
Securing Your Water Heater

Secure your water heater to minimize damage during a disaster. Fresh water after a disaster may be as close as your water heater — provided, of course, it remains standing upright. You can protect this valuable resource by securing your water heater to the wall studs.

First, check for plumbers' tape

Experts modified the procedure for strapping water heaters following the 1989 Loma Prieta and 1994 Northridge earthquake. Prior to this, a single strap of plumbers' tape was commonly used. Plumbers' tape is NOT strong enough to prevent water heaters from tipping over. Because so many tanks burst through this strapping, experts now recommend:

- 1. Secure the top and the bottom, rather than just the top or just the middle, of the tank.
- 2. Use heavy-gauge metal strapping rather than plumbers' tape.
- 3. Replace all copper and metal piping with flexible natural gas and water line connectors.

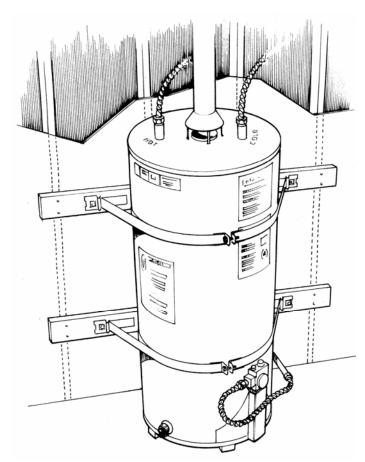


This is PLUMBERS' TAPE – it is not strong enough to stop water heaters from tipping over.

Second, secure tank with heavy-gauge metal straps, top and bottom

 Commercially available strapping kits make this a relatively easy process. These can be found in many hardware stores on the aisle displaying the water heaters. These kits come complete with the strapping, lag screws, washers, spacers and tension bolts.

- You can also choose to assemble the strapping materials yourself using heavy-gage metal straps and 3-inch lag screws.
- To prevent the tank from tipping backwards, there should be very little space between it and the wall. If there is more than 1 or 2 inches, attach a wooden block to the wall with long lag screws.
- Wrap the heavy-gauge metal strapping 1-1/2 times around the tank. Place the strapping at the back of the tank. Bring it to the front and then take it back to the wall.



• Secure the strapping to the wall studs or the wood block using several 1/4-inch x 3-inch or longer lag screws with oversized washers.

• If you are securing it directly into concrete, use 1/4-inch expansion bolts in place of the screws.

An emergency source of water

- Water can easily be accessed by connecting a garden hose to the drain spout, and by opening a faucet somewhere in the house.
- Make sure the electricity or natural gas is off before opening the drain.



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