

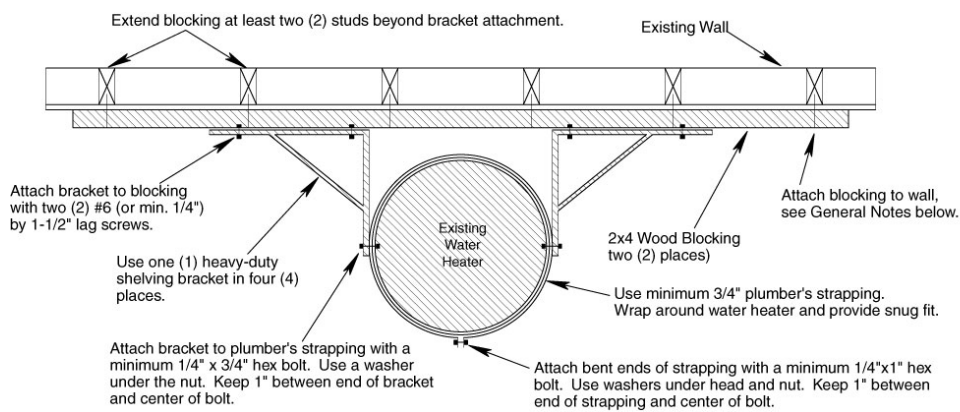
Reduce Six Common Earthquake Risks for Less than \$70

The most common sources of damage and injury during earthquakes in the United States are falling objects, according to the Federal Emergency Management Agency. The Insurance Institute for Business & Home Safety (IBHS) wants to help you identify affordable ways to secure five items commonly found in homes. Most of these projects you can do yourself or with the help of someone who is handy with household tools. Before beginning project 1 or 2, check with your local building department and make sure that the solution is approved for use in your area, or superior to what is required by your local building code. If you need to add flexible water or gas connections, you should have this done by a licensed contractor who has experience with these connections. For detailed guidance, download a free copy of the IBHS guide "Earthquake Risks around the U.S.: How to Protect your Property" at www.DisasterSafety.org.

WATER HEATER

For \$25 you can brace a water heater up to 50 gallons in capacity. The goal is to reduce the risk of movement or tipping, which can lead to water damage from a broken water pipe or spark a fire from a dislodged gas line.

Supply List: two 2" x 4" wood blocking strips, heavy-duty shelving brackets, stud finder, plumber's strapping (metal strapping with holes), and flexible water and gas connectors (if needed).



General Notes: Blocking Attachment to Wall

- 1) Wood Stud Wall: Use two (2) #16 (or minimum 1/4") x 3-1/2" lag screws with hex head and washer under head of screw.
- 2) Concrete or Masonry Wall: Use 3/8" masonry anchors with 1-5/8" embedment into existing wall at 12" - 16" on center.
- 3) Steel Stud Wall: Use two (2) #10-16 self-drilling sheet metal screws with hex head and washer under head of screw.
- 4) Wood and Steel Stud Walls: Center screws on studs.

-Method recommended by NIST. See NIST Report GCR 97-732 reference pg. 37.
-y refers to the connector's diameter.

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WALL-MOUNTED FLAT PANEL TELEVISION

For \$18 you can secure your television to the wall. The goal is to reduce the risk it will fall on someone sitting or standing nearby. This project is appropriate for a television weighing less than 110 lbs. with a 60-inch diagonal screen size or smaller. The framing studs behind the drywall where the television is mounted should be no more than 24 inches on center apart. If one or more of these conditions is not met have the television professionally installed.

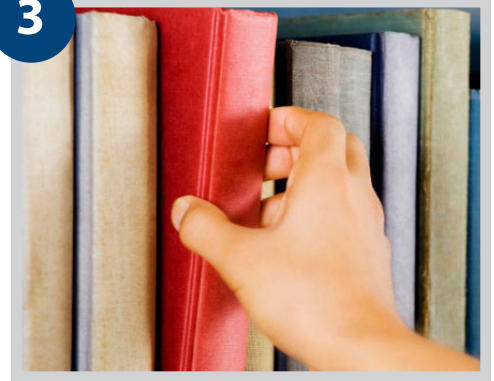
Supply List: stud finder, electric drill and 3/4-inch thick-12" x 28" wood board (plywood or solid wood). If you are working with wood studs, you will need 10, No.14 1/4 inch wood or deck screws. For metal stud applications, use 14 1/4" x 2" self-tapping screws intended for sheet metal applications. You will also need bolts to connect the wall mount bracket to the wood board. This can usually be accomplished with four, 5/16 inch carriage bolts at least 1 inch or longer, depending on the thickness of the wall mount bracket, with flat washers and lock washers or lock nuts.

BOOKCASES

For \$8 you can secure your bookcase and its contents. The goal is to prevent tipping over and spilling of contents, which can block exits and cause injuries and damage. Also try to avoid positioning bookcases facing each other in a room or hallway to help keep the exits clear.

Supply List: Stud finder, L- or Z-brackets, fasteners, plastic anchors for masonry walls, electric drill, screwdriver, wood, plastic or metal strips for shelf edges and heavy-duty Velcro® or museum gel/wax. The Velcro® or museum gel/wax also can be used to secure items on top of cabinets and elsewhere.

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WALL HANGINGS (PICTURE FRAMES, MIRRORS)

For \$6 you can secure up to three pictures, mirrors and other wall hangings. The goal is prevent these objects, which may have sharp edges or be heavy, from falling and injuring anyone nearby or causing damage.

Supply list: stud finder, screwdriver, electric drill, screw-eyes, heavy picture wire and pliers.

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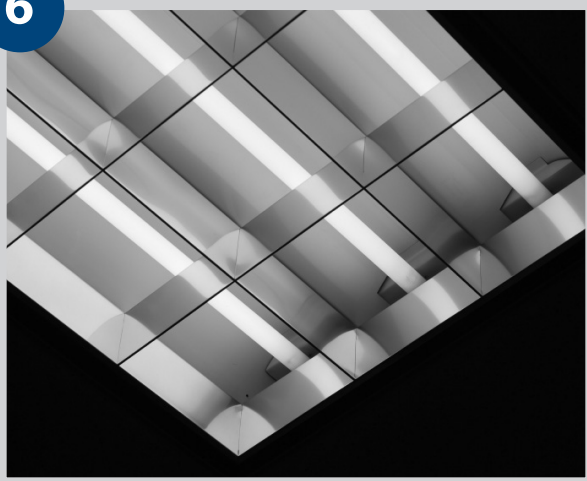


CABINET DOORS AND DRAWERS

For \$3 you can keeps six doors or drawers from opening in an earthquake. The goal is to keep contents, which may be heavy or fragile, from spilling out.

Supply list: Door or drawer latches, screwdriver or adhesive.w

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STRAIGHT TUBE FLUORESCENT LIGHTS

For \$3 you can buy two plastic sleeves that can be installed over straight tube fluorescent lights. This will help to keep them from spreading glass shards everywhere if one falls out during an earthquake.

The Insurance Institute for Business & Home Safety (IBHS) mission is to conduct objective, scientific research to identify and promote effective actions that strengthen homes, businesses, and communities against natural disasters and other causes of loss. Please visit our web site at www.DisasterSafety.org.



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