

**Most earthquake injuries in the US are caused by falling objects, and most earthquake damage in the US is to building contents. Non-structural mitigation reduces your chance of death, and injury, and property damage!**

- ☑ **Non-structural:** Building contents and components that are not part of the physical structure, i.e., everything except the columns, floors, beams, and load-bearing walls. Typical non-structural elements include: suspended ceilings, light fixtures, windows, doors, furniture, cabinets, computers, appliances, TVs, stereos, display cases, bookshelves, interior or exterior ornamentation, and heating/air-conditioning equipment, electrical, and plumbing systems.
- ☑ **Mitigation:** Reducing a hazard or one's exposure to it.

### STEP 1: Identify the Hazards

Figure out what non-structural hazards exist in your home or workplace, and how they could affect you.

**TIP:** if you're moving into a new residence, it's a lot easier to properly secure items at the outset, rather than after you're settled in.

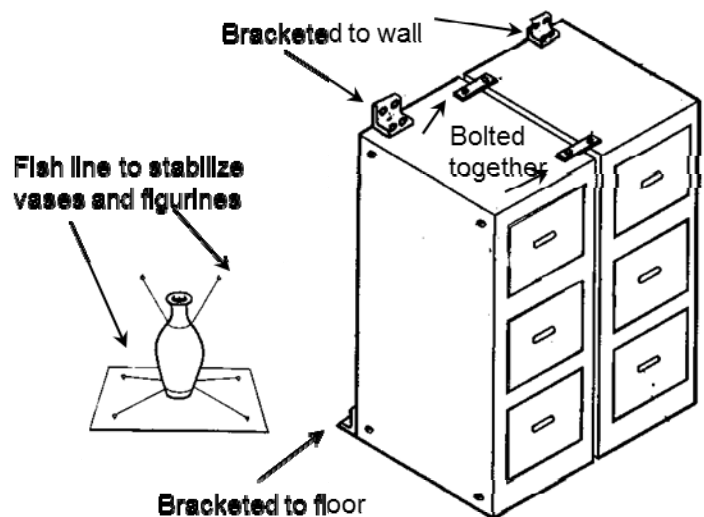
For more information, contact TVF&R or your local emergency manager.

#### AT HOME:

- Are there heavy/tall items in your home that could move or fall during an earthquake?
  - ◆ Could these items block exit routes out of a room or out of your home?
  - ◆ Can these items be secured to structural support (i.e., wall studs)?
- Are hanging plants and light fixtures secured to prevent them from swinging free, breaking against walls or furniture, or breaking windows?
- Are gas appliances (e.g., stove, oven, water heater and clothes dryer) securely fastened in place so they won't pull gas connections apart? Are gas lines and connections flexible?
- Are wall-mounted objects (clocks, pictures, mirrors, etc.) fastened to the structure (as opposed to wallboard)?
- Are items on shelves and in display cabinets secured to prevent them from flying out?
- Is your house securely fastened to its foundation?

#### AT WORK:

- Are items on shelves and in cabinets secured to prevent them from flying out?
- Are there heavy items that can be removed or replaced?
- Are there incompatible chemicals stored together that should be moved to prevent mixing if the containers break? Do your shelves have lips to keep items in place?
- Are file cabinets, bookcases, and other tall pieces of furniture secured to the frame?

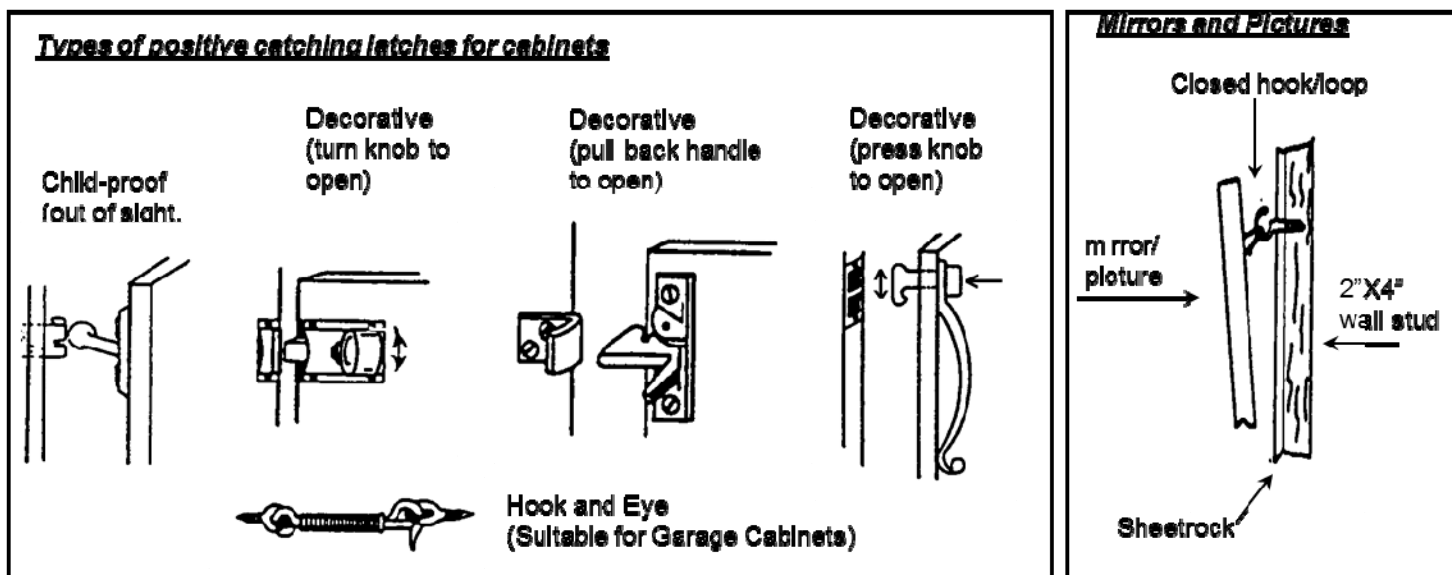
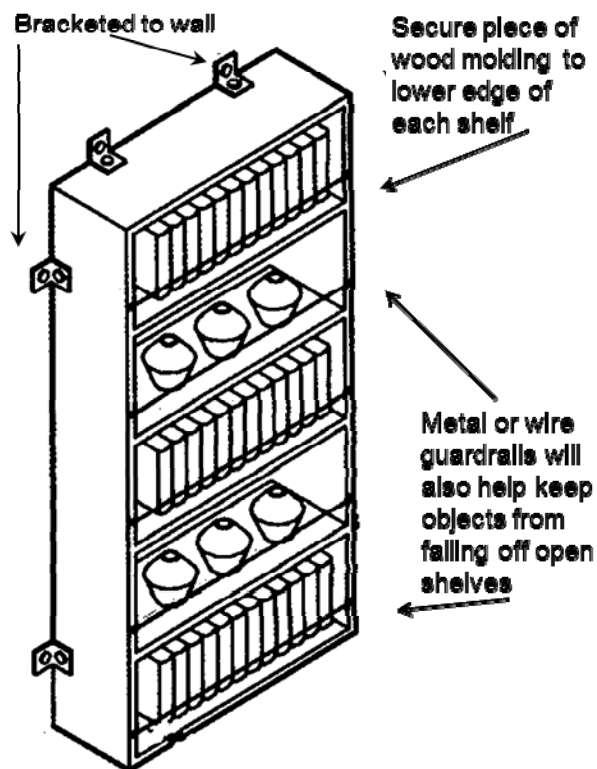


## STEP 2: Evaluate

- Identify which mitigation activities will most reduce your risk of injury and damage.
- Determine which activities can be accomplished at little or no cost (e.g., securing bookcases to walls, closed hooks for pictures and mirrors).
- Determine the best method for correcting larger problems (retrofit, remodel, or incremental upgrades).
- In the future consider purchasing only items that are considered “seismic-safe” or “earthquake-resistant” (e.g., file cabinets with strong latches on the drawers and wall or floor attachments).
- Routinely check any protective measures you have already taken to confirm that they are still effective.

## STEP 3: Take Action

- Attach heavy, tall, upright furniture to wall studs.
- Store heavy/breakable items on lower shelves.
- Secure kitchen and bathroom cabinets with “positive” (self-closing) latches or strong magnets.
- Secure items on shelves with quake mats, adhesives, low shelf barriers, or other restraining devices.
- Lock or remove rollers on beds, furniture, and appliances.
- Locate beds away from windows and heavy wall-mounted objects (e.g., large-framed art).
- Secure mirrors and pictures to walls or hang with heavy wire looped through eye screws or tongue-in-groove hangers.
- Secure hanging plants and light fixtures with wires to prevent swinging into walls, windows, or people.
- If you have a gas water heater, strap it to wall studs.
- Use flexible connections on gas appliances.
- Check chimney for loose bricks and repair as needed.
- Attach home to foundation so it won't shift in an earthquake.



For additional safety information visit [www.tvfr.com](http://www.tvfr.com)