



# KILLER ON THE LOOSE

How to reduce the risk of injuries and damage caused by earthquakes



*Most injuries during an earthquake are caused by falling objects. In the United States, over 90% of earthquake damage is to building contents. By securing contents in our homes and offices now, damages will be far less and many injuries will be prevented.*

## STEP 1 – Identify the Hazards:

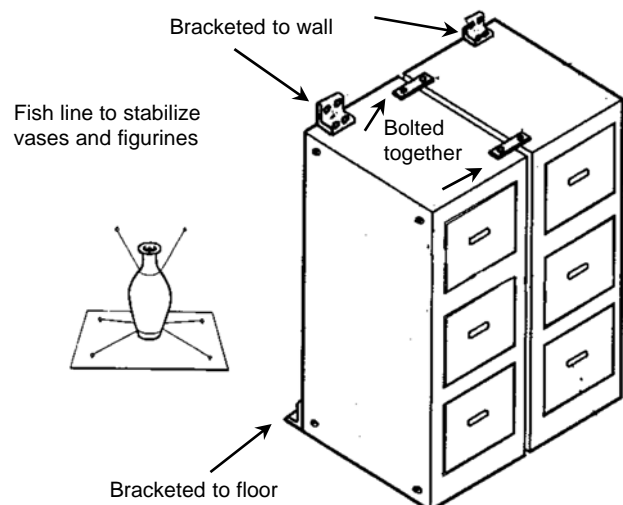
The first step in reducing the risk of damages and injuries is to do a hazard assessment. Complete a survey of your home and other primary environments by looking for the potential hazards that are listed below.

### At home:

- Are there heavy and/or tall items in your home that may move or fall over during an earthquake?
  - If these items moved or fell, would they block exit routes out of a room or out of your house?
  - 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 securely fastened in place (e.g., water heater and clothes dryer) so they won't pull the gas line connections apart?
- Are wall-mounted objects (clocks, pictures, mirrors, etc.) secured against falling?
- Are items on shelves and in display cabinets secured to prevent them from falling out?
- Are televisions, computers, and other electronics secured in place?
- Is your house securely fastened to its foundation?

### At work:

- Are items on shelves and in cabinets secured to prevent them from falling out?
- Are there items that no longer serve a useful function that can be removed?
- Are there incompatible chemicals stored together that should be moved to prevent mixing if the containers break?
- Are free-standing file cabinets, bookcases, vending machines, and other tall pieces of furniture secured to structural support?
- Are heavy or breakable items stored on top of bookcases or cabinets?

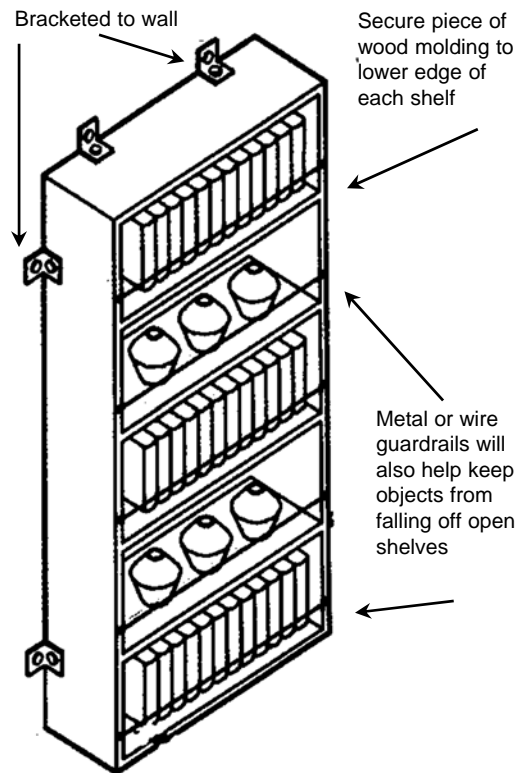


## STEP 2 – Make a Plan:

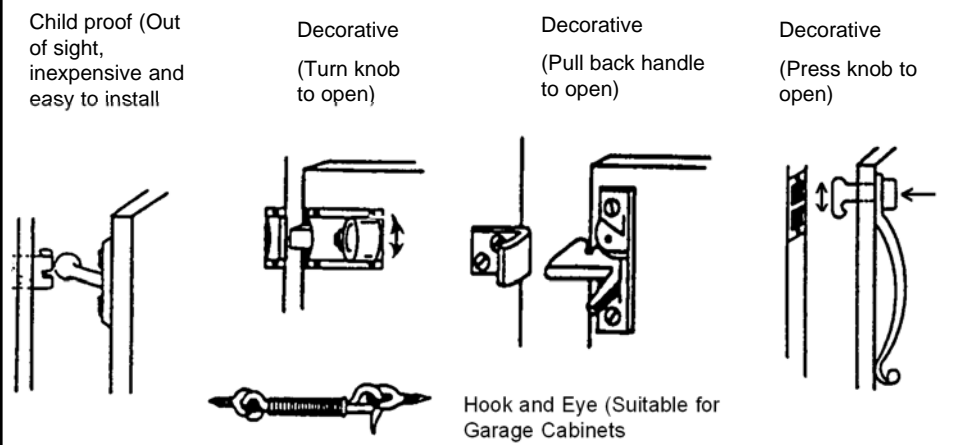
Now that you've identified the hazards, make a plan to correct them. Some problems can be fixed at little or no cost e.g. securing bookcases to walls, closed hooks for pictures and mirrors. Larger problems will require a retrofit, remodel or incremental upgrades as finances allow. When purchasing furnishings, look for strong latches on cabinet drawers and shorter bookcases that don't require securing to the wall to be safe.

## STEP 3 – Roll up your Sleeves:

- Bolt heavy, tall, upright furniture to wall studs
- Lock or remove rollers on beds, furniture, and appliances
- Secure hanging plants and light fixtures with guy wires to prevent swinging into walls or windows and breaking
- Locate beds away from windows and heavy wall-mounted objects
- Secure kitchen and bathroom cabinets with latches
- Secure items on shelves with quake mats, Velcro™, earthquake putty, low shelf barrier, or other restraining devices
- Store heavy and/or breakable items on lower shelves
- Strap water heater and all gas appliances to wall studs
- Use flexible gas connections on gas appliances
- Check chimney for loose bricks and repair as needed
- Check foundation for cracks and repair as needed
- Bolt home to foundation to prevent shifting during an earthquake
- Secure mirrors and pictures to the wall
- For additional information on nonstructural mitigation activities contact your local Emergency Management Office



### Types of positive catching latches for cabinets



### Mirrors and Pictures

