

## Home Safety Checklist Summary

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# Home Safety Checklist - After an Earthquake

## Gas

OK

Needs Attention

Resolved

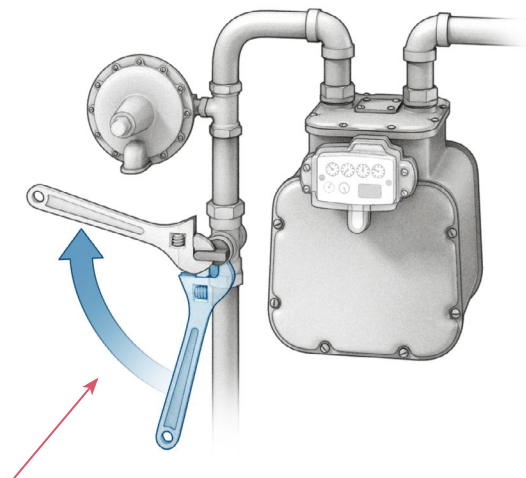
Check for the smell of gas (should have a noticeable odor) that might indicate a broken gas line. Check at gas meter and in vicinity of gas-powered appliances (such as water heaters, furnaces, stoves, and gas fireplaces). If your home has a crawlspace, check for gas odor at the crawlspace access openings and vents.

**Note:** If the crawlspace walls have noticeably slid relative to the foundation (about an inch or more of sliding) or are visibly leaning (top of wall has moved about two inches or more relative to bottom of wall), immediately turn off gas at the meter and request a home safety evaluation (See [Home Safety Evaluation on page 74](#)). Do not reoccupy the home until the home safety evaluation has occurred.

### If Occurs:

Turn off your gas at the meter. If gas smell appears to be from beyond your property, notify the local authorities (call 911) first and then notify the gas company.

### TURN VALVE CLOCKWISE TO SHUT OFF GAS



Turn valve clockwise from vertical (aligned with piping) to horizontal (perpendicular to piping) to shut off gas.

## Propane or Other Fuel Tanks

OK

Needs Attention

Resolved

Check above-ground tanks for shifting, falling off their supports, damaged anchorages, or other visible damage. Check for visible damage to fuel piping and controls.

### If Occurs:

Turn off fuel flow from the tank to the home. Barricade the area around the tank and contact qualified professionals to make needed repairs.

## Home Safety Checklist - After an Earthquake

### Masonry Chimneys

OK

Needs Attention

Resolved

Check for masonry chimneys that have cracked, shifted, or dislodged. Common locations for damage are at the roof line and where the chimney narrows, but damage at other locations can occur.

#### If Occurs:

Do not occupy areas in immediate vicinity of the damaged chimney, either inside or outside of the home. Request a home safety evaluation (see [page 74](#)). Note that chimneys that have entirely fallen all the way to the ground will generally no longer pose a safety hazard. A check should be made that there are no remaining loose bricks that could still fall. Do not push on a chimney that you suspect is damaged, as pushing could cause collapse.

Regardless of whether or not there is visible damage, do not use the fireplace until a chimney inspector has determined that it is safe to use.

Note that vents from some appliances, such as furnaces and water heaters, are sometimes routed through the chimney. Where damage to the chimney is suspected, do not operate appliances that vent through the chimney until the vent is determined to be functional.

#### Damaged Chimneys

Regardless of whether or not there is visible damage, DO NOT use the fireplace until a chimney inspector has determined that it is safe to use.



Shifted chimney.

PHOTO COURTESY OF KELLY COBEEN



Earthquake damaged chimney.

PHOTO COURTESY OF JANIELE MAFFEI

## Home Safety Checklist - After an Earthquake

### Masonry Walls and Parapets

OK

Needs Attention

Resolved

Where the home has brick or stone masonry exterior walls, check on the ground around the entire perimeter of the home for fallen bricks or stones, check the wall (particularly near the roof level) for shifted or dislodged bricks or stones, wall leaning, or other indications that the wall has pulled away from the building.

#### If Occurs:

Do not occupy areas in immediate vicinity of the masonry wall. Block or barricade the area if possible. Request a home safety evaluation (see [page 74](#)).

### Solar Panels

OK

Needs Attention

Resolved

Check for rooftop solar panels that have been damaged or shifted, creating a possible falling or fire hazard.

#### If Occurs:

If solar units or wiring appear damaged or units have moved significantly, switch off solar electricity feed to the home when possible. Contact qualified professional to make needed repairs. If necessary, take steps to stabilize inadequately supported units or barricade area where they could fall.



Masonry parapet separation.

PHOTOS OF DAMAGE TO URM BUILDING FROM 2016 OKLAHOMA EARTHQUAKE, COURTESY OF EZRA JAMPOLE, AVAILABLE AT [WWW.EERI.ORG](http://WWW.EERI.ORG), LAST ACCESSED 11/13/19



## Home Safety Checklist - After an Earthquake

### Manufactured (Mobile) Homes

OK

Needs Attention

Resolved

In addition to items previously discussed for all home types, check to see if the home has fallen off one or more support piers. This may be obvious from a distance if the home has clearly dropped down towards the ground. If there is no clear indication of the home dropping, open up the skirting and look for rotated or toppled support piers. Where the home has shifted, check utility hookups for damage, especially those for natural gas. Check also for damage to attached porches, carports, and other miscellaneous structures.

#### If Occurs:

Shut off utilities if hookups are damaged. Request a home safety evaluation (see [page 74](#)). The home will need to be reinstalled and utility hookups repaired, if required.



Manufactured home that has fallen off of support piers.

PHOTO COURTESY OF KELLY COBEEN



Manufactured home rotated and fallen support piers.

PHOTOS COURTESY OF KELLY COBEEN

## Home Safety Checklist - After an Earthquake

### Electrical

OK

Needs Attention

Resolved

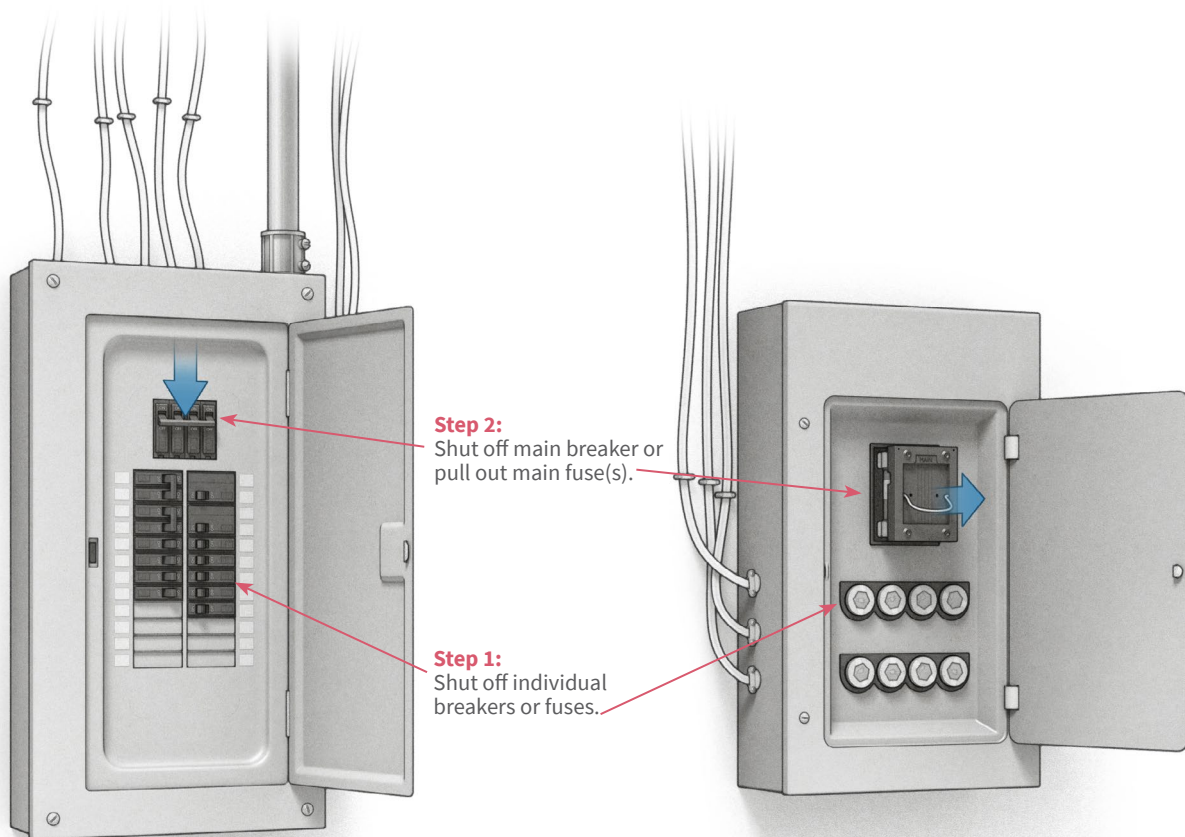
Check for damaged electrical lines. Start with the exterior line hookup to your home. If electrical lines are underground, check the exterior main electrical panel. Look for signs of damage or dislodgement and for circuits that may have tripped.

### If Occurs:

Turn off electrical power to the home at the main electrical panel. When possible, turn off each breaker switch or fuse (**Step 1**) before turning off the main incoming power breakers (**Step 2**). This helps avoid causing an electrical surge while turning power off. If the situation is judged to be an emergency, proceed immediately to **Step 2**. Contact electrical utility for damage to hookup and incoming lines. Contact a qualified professional regarding electrical damage at the interior of the home. When unsure about location of potential damage, contact the electrical utility.

### TURNING OFF ELECTRICITY AT THE MAIN ELECTRICAL PANEL OR FUSE BOX

When time permits, turn off individual breakers or fuses first (**Step 1**) and then main breaker or fuse (**Step 2**). When there is an immediate hazard, go directly to **Step 2**.



## Home Safety Checklist - After an Earthquake

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### Water Leaks

OK

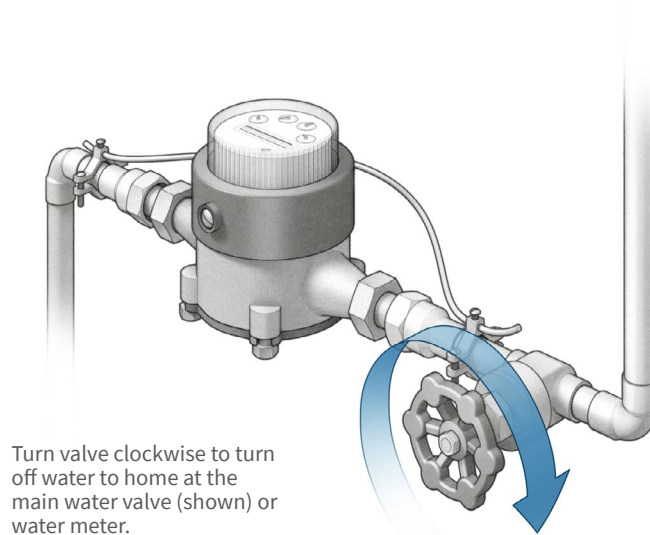
Needs Attention

Resolved

Check for liquid dripping or puddling that could be a sign of damaged water pipes. Look in vicinity of kitchen and bathroom fixtures, and other appliances using water. If water pipes enter the house through a crawlspace, check in the crawlspace.

### If Occurs:

Water can be turned off at a particular fixture, or if necessary, for the entire home. The valve to turn off water to the entire home may be outside of your home in warm weather climates. In other places, it may be where the water pipe enters the home. A second valve is often found in the immediate vicinity of the water meter.



Turn valve clockwise to turn off water to home at the main water valve (shown) or water meter.

### Masonry Veneer Detachment

OK

Needs Attention

Resolved

Check interior and exterior brick or stone wall finishes for signs of shifting, detachment from wall, or falling. One common place to find veneer is surrounding a fireplace. Stone and brick veneer can separate from the wall supporting it. If you push (gently) on the brick or stone and it visibly moves, there is potentially damage and the possibility of the veneer falling down.

#### If Occurs:

Request a home safety evaluation (see [page 74](#)). Block the surrounding floor or ground areas so no one will be injured if the veneer falls.



Brick masonry veneer fallen off of home exterior.

PHOTO COURTESY OF RONALD GALLAGHER



### Racked and Leaning Walls, Gaps, Stuck Doors and Windows

OK

Needs Attention

Resolved

Check for walls that are visibly racked or leaning (see illustration below) or doors and windows that are stuck. Check for portions of the home that appear to have moved, fallen down, collapsed, or where gaps have opened up between portions of the home.

#### If Occurs:

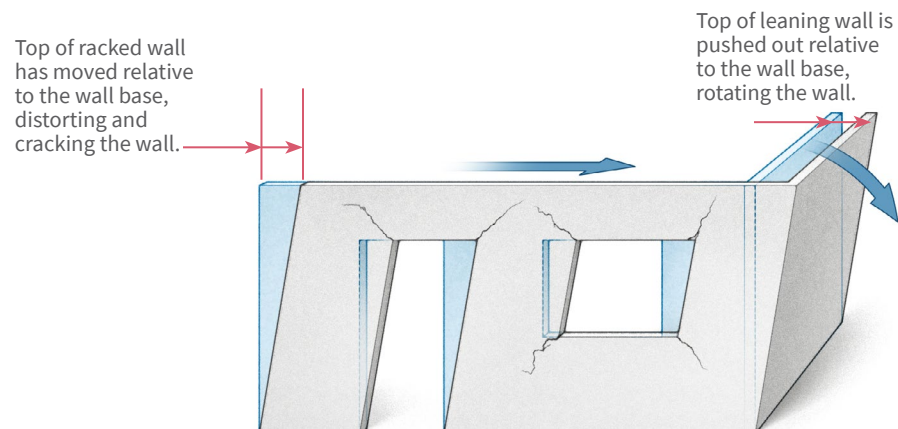
Request a home safety evaluation (see [page 74](#)). Where any of the following are found, do not occupy the home until the home safety evaluation has occurred:

- Walls are significantly racked or leaning (top of the wall has moved approximately one or more inches relative to the bottom of the wall), or
- Gaps between portions of the home are approximately an inch or more, or
- Portions of the home appear to be falling down, or
- Exit doors are stuck so that it may be difficult to exit in an emergency.



Examples of significant earthquake damage—portions of homes that appear to be leaning or have fallen down.

PHOTO COURTESY OF RONALD GALLAGHER



Wall racking (deformed in its plane) and leaning (out-of-plane) due to earthquake loading.

## Home Safety Checklist - After an Earthquake

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### Sewer Lines

OK

Needs Attention

Resolved

Check for damage to sewer lines. This would most likely be seen in the crawlspace or basement (where exists), at a clean-out immediately outside the home, or by smell. Significant leakage of damaged sewer lines can lead to health hazards.

#### If Occurs:

Refrain from putting kitchen, toilet, shower, and bath waste water into the drains and sewer system until sewer damage can be repaired.

### Glass

OK

Needs Attention

Resolved

Check for broken glass on the ground or still in place in door and window frames.

#### If Occurs:

Clean up already fallen glass, cover with plywood or similar panel or barricade (with furniture or similar) around area with glass remaining in window or door frame until it can be safely removed and replaced. Care should be taken to avoid injury while removing broken glass, and particularly glass that might still be hanging in the window or door opening but could fall during clean up. When glass panels have cracked but otherwise remain in place, they are often best left in place and covered with plywood or cardboard until replacement glass is available for installation.

## Home Safety Checklist - After an Earthquake

### Water Heaters

OK

Needs Attention

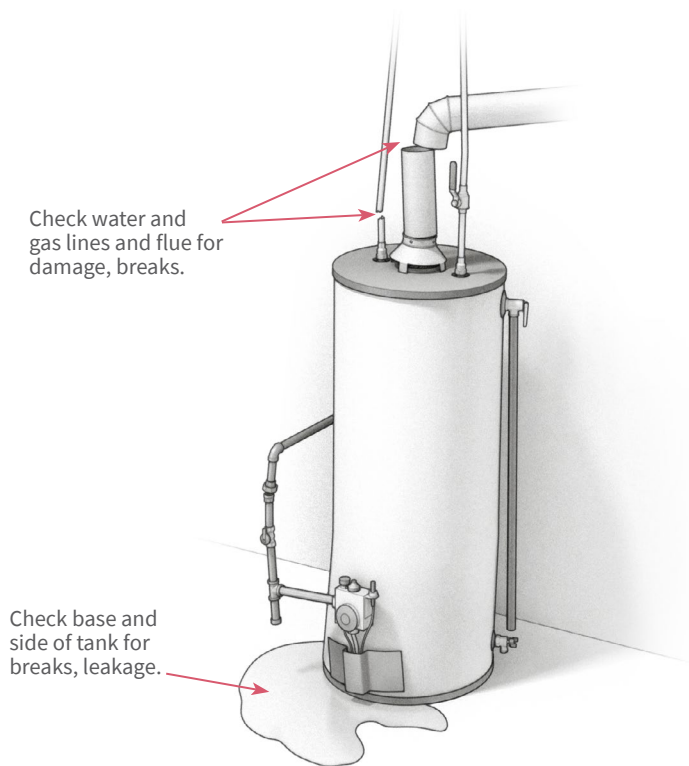
Resolved

Check for damage to the water heater, including broken gas and water supply lines, breaks or anchor failures at existing straps, fractures to the tank, water leakage, and dislodging of vent pipes.

#### If Occurs:

Shut off gas and water lines immediately. If the water heater is electric, shut off power. If the tank is fractured and leaking, steps should be taken to drain water and dry wet areas as soon as possible because water retained inside of wall and floor cavities can lead to mold damage. Drained water can be saved for later use if it is clean and practical to save. Information on how to strap your water heater can be found on [page 28](#).

#### SAFETY CHECK OF WATER HEATER



### Small Appliances

OK

Needs Attention

Resolved

Check small appliances for damage due to power surges during the earthquake. Look for scorch marks around appliances or electrical outlets. Look and smell for signs of smoldering or excessive heat. If outside your home, you might be able to look in through a window for any initial signs of danger before entering your home.

#### If Occurs:

Unplug all small appliances. If there are signs of damage, dispose of or repair appliances before using. If there are no signs of damage, plug them back in when you have time to observe whether each is functioning normally.

### Furniture and Home Contents

OK

Needs Attention

Resolved

Check for hazards from leaning or toppled furniture, food service items, and mixed cleaning chemicals.

#### **If Occurs:**

Stabilize furniture. Clean up broken glass and chemicals using proper tools, ventilation, and protective measures. Mixed cleaning products can be dangerous to touch and can create fumes that are dangerous to breathe.



## Home Safety Checklist - After an Earthquake

### Wall Damage

OK

Needs Attention

Resolved

Check interior and exterior wall finish materials, such as stucco, gypsum board, and plaster, for cracks greater than 1/8-inch wide and several feet long. Check for bulging or buckling finish material, or detachment of finish material from the walls (finish material moves when pushed on or gaps between framing and finish material are detectable).

#### If Occurs:

Request a home safety evaluation (see [page 74](#)). Where none of the exterior doors are operable, do not occupy home until doors are made operable and the home safety evaluation has occurred. Where one or more doors remain operable, the home can be occupied, but damage and required repairs should be evaluated by an insurance professional or design professional (architect or engineer). This finish material damage is an indicator that repair of damage may require more than just patching and painting.



Significant cracking of wall finish materials.  
PHOTOS OF DAMAGE TO WALL FINISH MATERIALS FROM  
ANCHORAGE EARTHQUAKE. COURTESY OF JANISE RODGERS,  
AVAILABLE AT WWW.EERI.ORG, LAST ACCESSED 8/3/19