## HERE ARE SOME LITTLE-KNOWN FACTS ABOUT THE NEW MADRID SEISMIC ZONE AND THE GREAT NEW MADRID EARTHQUAKES:

- The Great New Madrid Earthquake was actually a series of more than 1000 earthquakes that occurred during the winter of 1811 − 1812. The most recent USGS research estimates the four largest to have been between 7.0 and 7.7.
- Other than the west coast, the New Madrid Seismic Zone is the highest area of earthquake risk in the continental United States.
- The 1811 1812 earthquakes represent one of the greatest known releases of seismic energy anywhere in the world, ever.
- As a result of the 1811 1812 earthquakes, Congress passed America's first disaster assistance bill (which offered arable land to farmers in exchange for their ruined cropland), the initiation of a federal disaster policy that continues to this day.
- Since they happened prior to the discovery of plate tectonics, the great earthquakes of 1811 – 1812 were blamed at the time on things such as underground cavern collapses, electricity, & volcanoes.



#### MYTHS and MISCONCEPTIONS

#### MYTH: EARTHQUAKES ARE PREDICTABLE.

**FACT:** There is currently no way of predicting when and where a particular earthquake will occur, or how powerful it will be. There are reliable Earthquake Early Warning Systems available, but these systems simply detect an earthquake that is occurring and send notifications to locations farther away before the shaking starts. It's not a lot of warning, but it might be enough for a train engineer to shut down before crossing a bridge, or for a doctor in an operating room to put down the scalpel.

### MYTH: EARTHQUAKES CAUSE FAULTS TO "BREAK" OR MOVE.

**FACT:** It is the failure or "break" of the fault that *causes* the earthquake, not the other way around.

#### MYTH: Animals can predict Earthquakes.

**FACT:** Some animals are able to detect the very slight, early-arriving P-waves from an earthquake before people can (much like dogs can hear sounds that people cannot), but this is more "perception" than "prediction." The earthquake would already have begun in order for these waves to be generated.



### EARTHQUAKE PREPAREDNESS GUIDE

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## BEFORE AN EARTHQUAKE

DEVELOP A FAMILY EARTHQUAKE PLAN. PREPARE YOURSELF AND YOUR HOME.

- Decide how and where your family will reunite if separated.
- Choose an out-of-area friend or relative who separated family members can call after the earthquake to report their locations and conditions.
- Know the safe spots (against interior walls, under sturdy furniture, etc.) in each room of your home.
- Know the danger spots as well: windows, mirrors, hanging objects, fireplaces, tall/unsecured furniture, etc.
- Conduct practice drills.
- Keep a list of emergency phone numbers.
- Learn how to safely shut off gas, water, and electricity in case the lines are damaged.
- Secure water heaters and other appliances that might move enough to damage lines.
- Prepare for long periods of time without power, water, telephone service, and other basic utilities.
- Secure heavy furnishings, hanging objects, heavy pictures, mirrors, etc.
- Keep flammable/hazardous liquids in secure cabinets or on lower shelves. Keep them out of reach of or inaccessible to small children and pets.
- Maintain emergency food, water, and other supplies (flashlights and extra batteries, first aid kits, clothing appropriate for the weather, medications, etc.)

# DURING AN EARTHQUAKE

- If indoors, stay there and take cover. Under sturdy furniture, in a doorway (without a door), or against an interior wall are all acceptable shelter locations.
- Face away from windows and glass doors.
- Protect yourself from falling and flying objects.
- Remain where you are until the shaking stops. Think first; then move.
- If outside, move to an open area away from tall buildings, trees, power lines, walls, overpasses, etc.
- Lie down or crouch low to keep your balance.
- If driving, stop safely as soon as possible. Stay inside your vehicle until the shaking stops.
- Do NOT stop your vehicle underneath bridges or overpasses.
- Stay below window level in your vehicle. Turn off the engine and turn on the radio.
- If you feel you must leave your vehicle, move to an open area.
- Stay in your vehicle if power lines have fallen across it. Do not touch anything metallic.

# AFTER AN EARTHQUAKE

- Check for injuries and render first aid. Do not move seriously injured victims unless they are in immediate danger.
- Do not use the telephone unless it is to report injuries, fires, structural damage, or similar emergencies.
- Check for other hazards (spills, fires, etc.) and control them if possible.
- Check utilities (gas/water/electricity); turn them off at the source if there is damage.
- Check your home for structural damage, but only if you can do so safely.
- Verify food, water, medication, and other emergency supplies.
- NEVER use any open flame indoors.
- Turn on the radio and listen for announcement, information, and instructions.
- Do not use your vehicle unless there is an emergency; keep the roads clear for emergency responders.
- Prepare for aftershocks. The first jolt you feel may not be the last or the strongest.
- Help your neighbors lend a hand where you can.
- Plan for evacuation have a home emergency evacuation kit prepared. Leave written notes for family members or search teams.