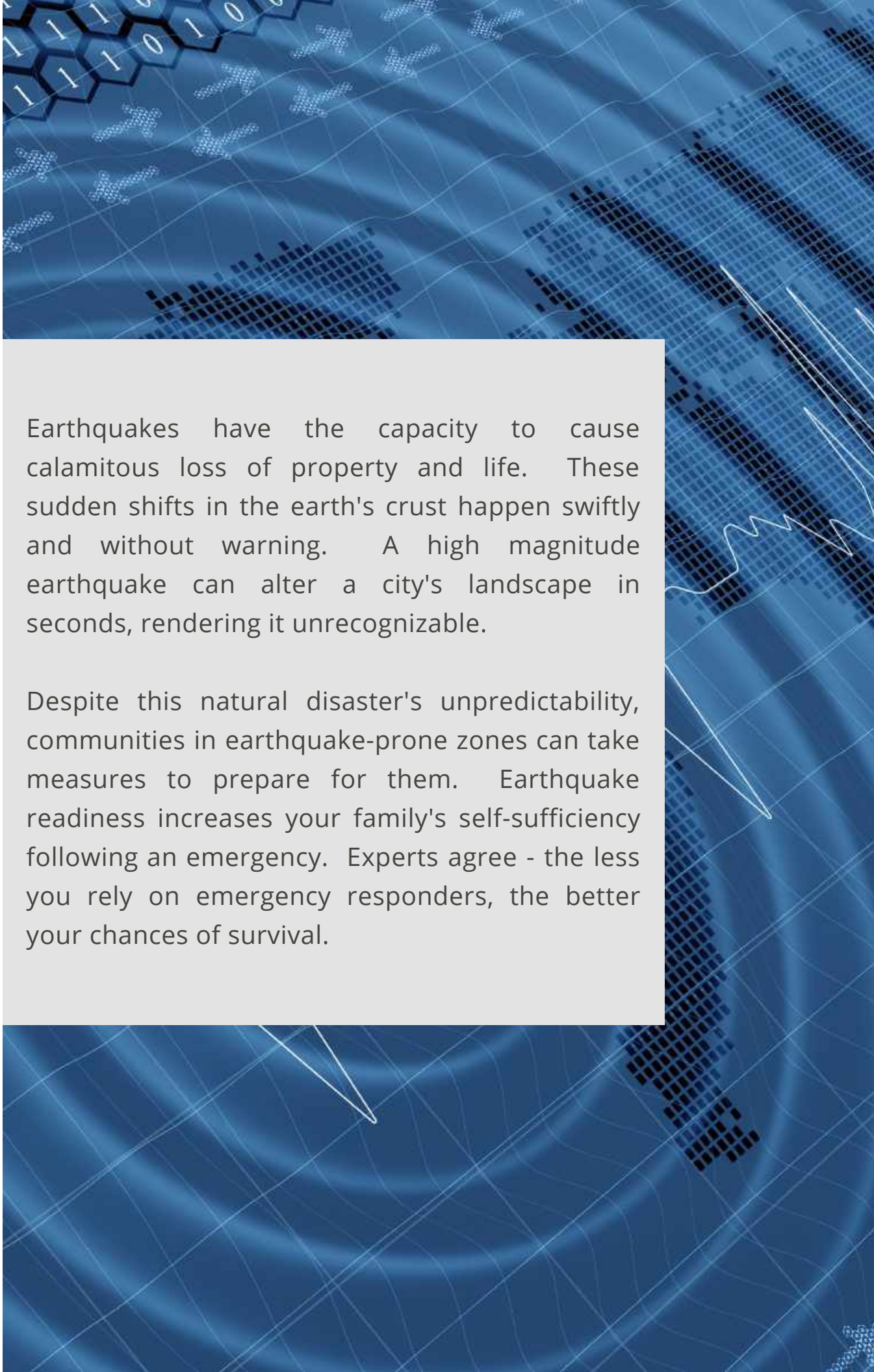
EARTHQUAKES

PREPARING | SURVIVING | RECOVERING

EMERGENCY READY

ER™ Preparedness Guides

www.quakekare.com



Earthquakes have the capacity to cause calamitous loss of property and life. These sudden shifts in the earth's crust happen swiftly and without warning. A high magnitude earthquake can alter a city's landscape in seconds, rendering it unrecognizable.

Despite this natural disaster's unpredictability, communities in earthquake-prone zones can take measures to prepare for them. Earthquake readiness increases your family's self-sufficiency following an emergency. Experts agree - the less you rely on emergency responders, the better your chances of survival.

PREPARING

LEARN ABOUT EARTHQUAKES

The more you understand these powerful forces of nature, the better you can prepare for them.

WHAT IS AN EARTHQUAKE?

The earth's crust is divided into several puzzle-like pieces called tectonic plates. These rough-edged plates continuously drift and slide against each other, creating friction and forming cracks in the earth's crust called fault lines. **An earthquake is the sudden movement or slip of tectonic plates along a fault line.** This unpredictable and abrupt release of energy in the earth's crust has the capacity to create immense damage.

The Moment Magnitude Scale (MMS) measures the magnitude of an earthquake. The Modified Mercalli Scale measures the intensity of the quake based on a scale between 1 and 10.

MODIFIED MERCALLI INTENSITY SCALE:

1 - NOT FELT
2 - WEAK felt by a few people
3 - WEAK may feel like a passing truck
4 - LIGHT dishes, windows, doors rattle
5 - MODERATE felt by all, small objects and pictures fall
6 - STRONG some heavy furniture moved or overturned
7 - VERY STRONG slight building damage
8 - SEVERE severe building damage in non-earthquake resistant structures
9 - VIOLENT considerable infrastructure damage
10 - EXTREME most structures destroyed

KNOW YOUR AREA'S RISK

California: The San Andreas Fault Line in CA extends 10 miles into the ground and runs 650 miles up and down the state. It is one of the most active fault lines globally, averaging over 10,000 earthquakes each year.

Oregon and Washington: The Cascadia Subduction Zone runs 100 miles off the Western Coast of the United States and stretches from Mendocino, CA to Canada's Vancouver Island. Movement along this subduction zone has the potential to create a megathrust quake measuring 30 times stronger than an earthquake generated along the San Andreas Fault Line. The magnitude of this off-shore earthquake has the potential to trigger a tsunami strong enough to wipe out coastal towns and cities up and down the western coasts of Oregon and Washington.

Missouri, Kentucky, Arkansas, and Tennessee: The New Madrid Fault Line extends 120 miles from southeastern Missouri (the "boot heel") into northeastern Arkansas. The fault line crosses five state lines and can generate a 7.5 - 8.0 magnitude earthquake affecting Eastern Missouri, Northeast Arkansas, Southern Illinois, Northern Mississippi, and Western Tennessee, and Kentucky. Cities expected to suffer intense damage include St. Louis, Memphis, Little Rock, and, Evansville.

Oklahoma: Although controversial, the United States Geological Survey (USGS) identifies fracking as the main cause of the uptick in earthquakes impacting Oklahoma.

Alaska: A slip of the Pacific Plate underneath the North America Plate triggered a magnitude 9.2 earthquake that devasted parts of Alaska in 1964 and is considered the largest earthquake to occur in the United States. Alaska experiences the most earthquakes in the United States averaging 12,000 quakes each year.

NON STRUCTURAL HAZARD MITIGATION

Your greatest risk of injury during an earthquake comes from nonstructural hazards such as falling decorative pieces, fixtures, and heavy furniture.

Nonstructural hazard mitigation is one of the least expensive ways to decrease the incidence of injury. Follow the list below to identify and mitigate potential hazards in your home, office, or classroom:

IN THE HOME

- Secure your hot water heater and install an Automatic Gas Shut Off.

- Secure household items and furniture
  - Store breakable, large, and/or heavy objects on lower shelves or in latched cabinets.
  - Install latches on all cabinet doors.
  - Fasten shelves securely to walls.
  - Hang heavy pictures, mirrors, and other wall decor away from beds, couches, and anywhere people sit.

- Inspect chimneys, roofs, and wall foundations for stability issues. Note: If your home was built before 1935, make sure your house is bolted to its foundation. If your home is on a raised foundation, make sure the cripple walls have been made into shear walls. Call a licensed contractor for an inspection.

- Brace overhead light fixtures.

- Repair defective wiring and leaky gas connections.

- Repair deep cracks in ceilings or foundations.

IN THE OFFICE

EQUIPMENT AND FURNISHINGS: Strap rows of multiple file cabinets, racks bookcases, etc., together, then anchor to the floor and the wall. Store computer CPUs on the floor next to their workstations and install latches on cabinet doors.

OVERHEAD: Secure all objects that are above desktop level. Check for diagonal bracing wires suspended in ceilings. Ensure proper restraint of "stem" light fixtures and fluorescent light panels. Securely attach decorative ceiling panels, spotlights, speakers, air conditioning units, etc.

ELECTRICAL EQUIPMENT: Secure any electrically powered equipment to prevent shocks from live wires. Have a back-up power generator for emergency lighting and to protect against data loss. Ensure generators, fuel tanks, battery packs, and fuel lines are anchored.

PLANT EQUIPMENT: Bolt down water heaters, furnaces, boilers, fans, pumps, heating, ventilating, air conditioning equipment, and the ducting or pipes that go with them.

HAZARDOUS MATERIALS: Securely store large containers of production chemicals or cleaning supplies. Ensure that all toxic items are in the correct container and properly labeled. Educate all employees on what to do in case of a spill. Keep all large containers or vats of toxic, hot, or hazardous items covered to prevent spillage in an earthquake.

IDENTIFY AREAS TO SHELTER

Statistics show the majority of earthquake-related injuries occur when people panic and run as debris rains down on them. A safer alternative is to **drop, cover and hold-on**. In your home and office, identify a sturdy piece of furniture you can shelter under such as a heavy desk, dining room table, bed, or coffee table. Store your earthquake survival kit in a garage or closet near an exit.

MAKE A PLAN

Create a written plan that all family members will follow in the event of an earthquake. Your plan should include the following:

- Identify a safe place outside of your home to meet your family or housemates after the disaster.
- Provide all family members with a paper list of important contact phone numbers including an out-of-state contact.
- Identify a place to live if your home is no longer structurally sound after an earthquake.
- Know the emergency plans developed by your children’s school or daycare. Keep your children's school emergency release card current.
- Keep copies of essential documents, including identification, insurance policies, and financial records, in a secure, waterproof container. Include a household inventory (a list and photos or video of your belongings).
- Ask your babysitters, house sitters, neighbors, coworkers, and others about their disaster plans, and share your plan and with them.

FAMILY EARTHQUAKE PLAN

Provide a copy of this plan to all family members and emergency contacts. Practice your plan often.

EMERGENCY READY

☐ IDENTIFY A SAFETY SPOT AND A RENDEVOUS LOCATION

Location of Safety Spot in the Home: _____

Location of Safety Spot in the Office: _____

Location of Family Meeting Place: _____

☐ PURCHASE OR BUILD AN EARTHQUAKE SURVIVAL KIT

Location of Survival Kit: _____

☐ WRITE INSTRUCTIONS ON HOW AND WHEN TO TURN OFF YOUR UTILITIES - ELECTRICITY, GAS, AND WATER.

Electricity: _____

Gas: _____

Water: _____

☐ IDENTIFY AN OUT-OF-STATE EMERGENCY CONTACT

Name: _____

Phone Number: _____

☐ FAMILY MEMBER CONTACT NUMBERS

_____

_____

_____

CONDUCT EARTHQUAKE DRILLS

identify sturdy pieces of furniture you can shelter under then practice drop, cover and hold-on.

BUILD A KIT

Your Earthquake Survival Kit ensures you and your family's self-sufficiency after an earthquake.

Food and Water: a 10-day supply of fresh water and non-perishable food for each person in your family. Include food and water for your pets.

Shelter Supplies: thermal mylar blankets, sleeping bags, portable tents, tarps, and plastic sheeting

Hygiene Items: waterless shampoo and toothpaste, comb, toilet paper, tissue paper, wipes, portable toilet, disposable bags, extra pair of clothing, and closed-toe shoes for each family member.

First Aid: family-sized first aid kit and extra prescription medications

PPE: masks for each family member, sanitation wipes, hand sanitizer

Lighting: hand-crank/solar-powered flashlights, extra batteries, candles

Communication Device: Hand-crank/solar-powered radio with access to the NOAA weather-band emergency alert channels and a whistle to signal for help

Additional Items: shovels and pry bars to perform search and rescue operations, gas/water shut-off wrench, safety goggles, sturdy work gloves, dust masks

SURVIVING

DURING AN EARTHQUAKE

1-STAY IN PLACE

Do not follow your initial instinct to run.

2-DROP, COVER & HOLD-ON

DROP onto your hands and knees. This position protects you from being knocked down and also allows you to stay low and crawl to shelter.

COVER your head and neck with one arm. Be sure to stay on your knees and bend over to protect your vital organs.

HOLD ON under your shelter until the shaking stops. Be ready to move with your shelter as it shifts.

OTHER CONSIDERATIONS

- Stay away from glass, windows, outside doors and walls, and anything that could fall, such as lighting fixtures or furniture.

- Use a doorway for shelter only if it is in close proximity to you and if you know it is a strongly supported, load-bearing doorway.

- If in bed when the earthquake strikes, hold on and protect your head with a pillow, unless you are under a heavy light fixture that could fall. In that case, move to the nearest safe place.

- If you are in a HIGH-RISE BUILDING, and not near a desk or table, move against an interior wall and protect your head with your arms. Stay indoors.

- If you are in a CROWDED STORE OR OTHER PUBLIC PLACE, do not rush for exits. Move away from display shelves containing objects that could fall.

- If you're in a WHEELCHAIR, stay in it. Move to cover, if possible, lock your wheels, and protect your head with your arms.

- If you're in the KITCHEN, move away from the refrigerator, stove, and overhead cupboards.

- If you're in a STADIUM OR THEATER, stay in your seat and protect your head with your arms. Do not try to leave until the shaking is over then evacuate in a calm, orderly manner. Avoid rushing toward exits.

IF YOU ARE OUTSIDE

If you are OUTDOORS, move to a clear area away from trees, signs, buildings, electrical wires, and poles.

Once in the open, stay there until the shaking stops. The greatest danger exists directly outside buildings, at exits, and alongside exterior walls.

If you're on a SIDEWALK NEAR BUILDINGS, duck into a doorway to protect yourself from falling bricks, glass, plaster, and other debris.

If you are DRIVING, pull over to the side of the road and stop. Avoid overpasses, power lines, and other hazards. Stay inside the vehicle until the shaking is over. Stop as quickly as safety permits and stay in the vehicle. Avoid stopping near or under buildings, trees, overpasses, and utility wires. Proceed cautiously once the earthquake has stopped. Avoid roads, bridges, or ramps that might have been damaged by the earthquake.

RECOVERING

AFTER THE EARTHQUAKE

First, assess your own situation.

- Are you trapped? Are you seriously injured? Can you quickly reach an exit?
- If you are able, quickly make your way to an emergency exit. Be aware of aftershocks that may cause additional damage or items to fall.
- If you are trapped by fallen debris, protect your mouth, nose, and eyes from dust.
- If you are bleeding, put pressure on the wound and elevate the injured body part.
- Signal for help with an emergency whistle (if available), a cell phone, or knock loudly on solid pieces of the building, three times every few minutes. Rescue personnel will be listening for such sounds.
- Once you are safe, help others and check for damage. Protect yourself by wearing sturdy shoes and work gloves, a dust mask, and eye protection to avoid injury from broken glass and debris. All these items should be in your home, office, or classroom survival kit.

COMMUNICATE

- Use your cell phone only to call for emergency help.
- Text loved ones, and your out-of-state contact, don't call.
- Listen to the radio for emergency updates and safety advisories.

FOLLOW YOUR PLAN

- Reunite with family members at your designated meeting place.
- Assess your home for structural damage, contact your insurance agent as quickly as possible to start the claims process.
- Connect with your neighbors - communication and cooperation within your community can hasten the recovery period.

DIRECT ASSISTANCE

Direct assistance to individuals and families may come from any number of organizations, including: the American Red Cross, the Salvation Army, and other volunteer organizations. These organizations provide food, shelter, supplies and assist in clean-up efforts.

FEDERAL ASSISTANCE

In the most severe disasters, the federal government is also called in to help individuals and families with temporary housing, counseling (for post-disaster trauma), low-interest loans and grants, and other assistance. The federal government also has programs that help small businesses and farmers.

Most federal assistance becomes available when the President of the United States declares a “Major Disaster” for the affected area at the request of a state governor. FEMA will provide information through the media and community outreach about federal assistance and how to apply.

RESOURCES

ready.gov/earthquakes

https://www.redcross.org/get-help

disasterassistance.gov

fema.gov/assistance


QUAKE KARE
WWW.QUAKEKARE.COM
800.277.3727
EMERGENCY READY