

Major Earthquake



PALM DESERT
CALIFORNIA



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Plan and Be Prepared

The staggering magnitude of recent earthquake disasters around the world serves as a sobering reminder of the importance of planning and being prepared for a major quake in our area. This brochure is full of useful tips and important checklists that will help you be ready when the earth starts shaking.



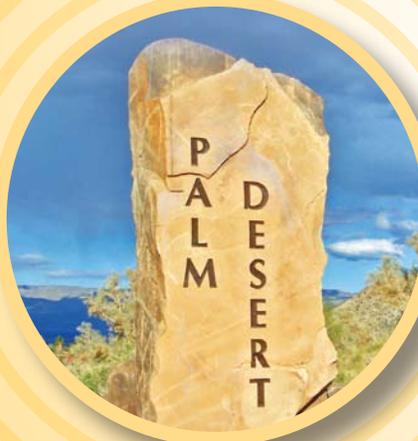
Earthquakes strike without warning and can happen any time. Preparation must be an ongoing process. The City of Palm Desert, Riverside County, and California have spent time and money preparing for a disaster, but there are limits on what government can do to help you. The City's Emergency Operations Center (EOC) at Palm Desert Civic Center will be activated in the event of an emergency, but its function will be to serve as a place where government agencies can receive and process information, establish recovery priorities, and coordinate relief efforts.

The primary source for water, food, and other necessities in the days immediately following a disaster will be you. Palm Desert residents and businesses will need to be self-sufficient for up to a week or longer after a major earthquake. The only way to accomplish this is to take two immediate actions: **1) Plan and 2) Prepare.**

Planning involves taking steps to imagine what it will be like when the earthquake hits, and deciding ahead of time what to do before, during, and after the quake.

Preparation is assembling the necessities to be self-sufficient before a quake strikes and to make sure your supplies are easily accessible in the days that follow.

The good news is that planning and preparing are not difficult. Review the tips and checklists in this newsletter, then make your plans and stock your supplies. Once you are done, all you have to do is regularly refresh your supplies and fine-tune your plans. You might find that being prepared gives you added peace of mind and makes living in earthquake country easier.



Be Ready – Before, During, & After

BEFORE

When an earthquake strikes, it is too late to prepare. By planning now, identifying potential hazards, and preparing emergency supplies, you can help yourself and others survive a disastrous earthquake.

- Stock emergency supplies at home, at work, and in your car.
- Maintain enough emergency food, water, and other supplies, including medicine, a first aid kit, cash in small bills, and clothing to last at least a week. Include a manual can opener and a battery operated radio or television.



- Secure water heaters and appliances that could shift enough to rupture utility lines.
- Learn how to shut off gas, water, and electricity and know when it's appropriate to do so.

- Prepare duplicate financial and identity papers and store them in airtight plastic bags.

- Store extra food and water for pets. Pets will not be allowed at emergency shelters. However, the City is working with Animal Samaritans and the Coachella Valley Animal Campus on an emergency pet care plan.



- Relocate breakable, heavy objects, and chemical or paint containers to lower shelves, especially in garages.
- Decide where your family will reunite if separated during the day or at night.
- Choose an out-of-state friend or relative whom family members can call to check-in with after the quake.
- If your children are home alone after school, have a plan for what to do and where they will stay until you can arrive.



- Always know the possible exits at home and work.
- Know the safe spots in each room, such as

under sturdy tables, desks, or against inside walls.

- Know the danger spots including windows, mirrors, hanging objects, fireplaces, and tall furniture. Keep breakable and heavy objects on lower shelves.
- Ensure that beds are clear from bookcases, mirrors, pictures, and other objects that might fall.
- Secure furniture to wood studs inside walls.
- Secure hanging plants, heavy picture frames, and mirrors.
- Install latches on cabinet doors, especially in the kitchen, to keep them closed during shaking.

- Conduct practice drills. Show children where to “drop, cover, and hold on.”
- Learn first aid and CPR.
- Organize a neighborhood preparedness program. Identify neighbors with special needs.
- Every homeowners association should have an emergency plan.
- People who require electricity for medical equipment should contact their utility provider and consider a portable generator.
- Prepare the same at home and at work. Have a change of clothes and a comfortable pair of shoes available.



DURING

When the earth is shaking, there are ways to improve your chances of survival. Practice the following tactics at home, the office, and other places so that you will be ready.

- DROP, COVER, and HOLD ON – The Federal Emergency Management Agency (FEMA) reiterates its long-standing advice to DROP to the ground; take COVER by getting under a sturdy table or other piece of furniture; and HOLD ON until the shaking stops.
- Stay away from heavy furniture, appliances, large panes of glass, shelves holding heavy objects, and masonry veneer (such as the fireplace). A hallway is one of the safest places if it is not crowded with objects. Kitchens and garages tend to be the most dangerous.



- Know your environment. The most likely ways to be injured in an earthquake are to have heavy objects fall on you or to be cut by broken glass.
- Know the safest place in each room, as it will be difficult to move around during a severe earthquake.
- If indoors, do not run outside.
- If you are outside, move to a clear area free of power lines, trees, signs, buildings, vehicles, and other hazards.



- If you are driving, pull over to the side of the road, stop, and set the parking brake. Avoid overpasses, bridges, power lines, signs, and other hazards. If a power line falls on the car, stay inside until trained personnel remove the wire.

AFTER

You survived the shaking, but what do you do now? First, take care of your own situation and remember your emergency plans.

- Check yourself and those around you for injuries, then check on your neighbors.
- Use first aid. If a person is bleeding, put direct pressure on the wound and elevate it. Use clean gauze or cloth if available. Get medical help for serious injuries.
- Keep pets in a secure place at home.
- Check your home for significant damage, the smell of gas, water leaks, and smoke. Protect yourself by wearing sturdy shoes and work gloves and if possible, a dust mask and eye protection.
- Cracks in walls and ceilings do not necessarily mean your house is unsafe. If you feel your building is unsafe, leave slowly and carefully. If possible, take your emergency supplies with you.
- Do not automatically shut off the gas unless you smell it or hear it leaking; it may be weeks before the gas company can restore your service.
- If there is damage to your home's electrical wiring, shut off power at the main breaker. Leave power off until damage is repaired.
- Unplug broken lights and appliances. They could start a fire when energy is restored.
- If your water is off or unsafe, use melted ice cubes and your stored water. Do not drink water from swimming pools and spas, use it for hygiene.
- Check your phones. Direct plug in phones may work without an external power source.
- Clean up spilled chemicals, medications, and glass as quickly as possible.
- Listen to battery operated radios or televisions for alerts to find out information on shelter, first aid, medical care, and police and fire service activities. Remember your car radio is battery operated too.
- Open cupboards, closets, and medicine cabinets cautiously as contents will have shifted.



- Do not use portable generators or charcoal and gas grills inside.
- Do not use candles.
- Never touch downed power lines or any objects or liquids in contact with them.
- Do not use elevators, even if the power is on. Use stairs after checking that they are safe.
- The Red Cross will set up distribution centers for food and water as soon as possible after the quake. The exact locations of these facilities will be announced on the radio.
- Expect aftershocks. Some may be as large as the original quake.
- If you have earthquake insurance, contact your agency as soon as possible to begin your claims process.

Business Emergency Planning

Businesses of all sizes must plan and prepare for a major disaster. This can be simple for small businesses and more complex for larger ones. Businesses that are part of national or regional chains need to ensure that corporate headquarters understands the potential for an earthquake disaster at its Palm Desert store/office and provides resources accordingly. The basics for businesses:



Direction and Control: Develop a chain of command. Know who is in charge and organize employees into teams and evacuation groups. Make sure to have alternates because not everyone will be present.

Communications: Assess communications from two key points of view: business continuity communications and emergency response communications.

Life Safety: Assess the facility for special safety or environmental issues with chemical storage or process risks. Educate employees on how to protect themselves during the quake. Make sure everyone knows how to search and rescue, perform first aid, evacuate safely, and maintain a presence without electricity, phones, or outside water supplies.

Property Protection: Establish procedures for fire fighting, water, process control, orderly shutdowns, control of chemicals, and secure closure. Identify sources of back up equipment and supplies. Do not forget protection for both electronic and paper records.

Community Outreach: Businesses are often asked to assist local governments because businesses have resources including people, supplies, transportation, and shelter. Plan to provide whatever assistance could be feasible and establish mutual aid agreements with local agencies. Contact the City before the disaster to coordinate efforts.

Recovery and Restoration: Plan ways to keep the business running, protect the assets and data, work with suppliers and customers, and operate with limited resources.

Administration and Logistics: Make arrangements for food, water, and shelter for employees. Establish back up communications and records. Document exceptional costs and anything else that would assist in running the operation after a disaster.

For a detailed Business Emergency Planner, visit www.fema.gov/pdf/library/bizindst.pdf or contact City Hall: (760) 346-0611, ext. 318.

Local Emergency Operations

The City of Palm Desert's Emergency Operations Center (EOC) will be activated in the event of an emergency. It is located at City Hall and is staffed by City employees who work in conjunction with Riverside County, and if necessary, state and federal governments. The activities that occur in the EOC are setting overall priorities, receiving and processing information, coordinating between departments and agencies, and establishing recovery priorities.

The EOC and Palm Desert City Hall will not be a source for food and water. Red Cross distribution centers will be announced on the radio. Everyone needs to be self-sufficient for at least a week.

For more information visit the following websites:

California Integrated Seismic Network (CISN):
www.cisn.org

California Office of Emergency Services:
www.oes.ca.gov

Citizens Emergency Response Teams and Training:
www.citizen corps.gov/cert/about.shtm

City of Palm Desert:
www.cityofpalmdesert.org/Index.aspx?page=270



City of Palm Desert's Emergency Operations Center.

Coachella Valley Emergency Managers Association:

www.cvema.org

FEMA disaster publications list:

www.fema.gov/plan/prevent/earthquake/publications.shtm

FEMA information on earthquakes and preparation:

www.fema.gov/areyouready/earthquakes.shtm

Southern California Earthquake Center:

www.earthquakecountry.info

US Geological Survey:

<http://earthquake.usgs.gov/>

Emergency Supply Checklist

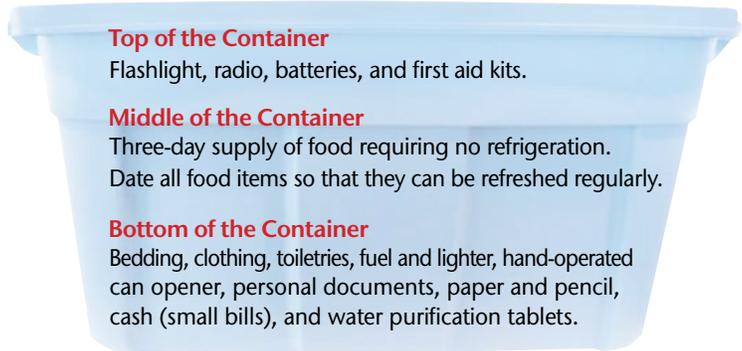


- Food** – Nonperishable, canned, or dehydrated as well as food for infants and pets
- Water** – A minimum of two gallons per person per day for drinking and a half-gallon per person per day for cooking and hygiene
- First aid kit and manual**
- Flashlight and spare bulbs**
- Portable radio**
- Spare batteries for flashlights and radios**
- Fire extinguisher** – ABC multipurpose type
- Extra prescription medicines**
- Manual can opener**
- Waterproof matches**
- Pocketknife**
- Tools** – Pliers, screwdriver, crescent wrench, shovel, wire, broom, etc.
- Plastic bags with ties** – For waste disposal, storage of personal items, etc.
- Rope**
- Heating fuel** – Sterno or other type for food preparation. Fumes from charcoal are especially deadly. Use outdoors only.
- Blankets**
- Work gloves**
- Extra eyeglasses**
- Pet Supplies** – Food, medicines, and a carrier
- Cash** – Small bills

Storing Emergency Supplies

Proper storage of emergency supplies is as important as having the right supplies. Choose a place or places that would be relatively safe in an earthquake, such as a closet or under a bed. The perishable supplies will remain stable longer if stored in a cool, dark location.

Emergency supplies can be stored in a large, covered trash container. Plastic containers are durable, come in all shapes and sizes, and are water and rodent proof. Be sure the container comes with a securing lid. Listed below are some helpful suggestions on how to store emergency supplies.



MOBILE SURVIVAL KIT

In every vehicle, keep a survival kit containing blankets, drinking water, a change of clothes, fire extinguisher, first aid kit, a manual emergency signal device, flashlight, prescription medicines, toilet tissue, whistle, and tools. Also keep a kit at work.

WATER

Each person needs at least one gallon of water per day. Because of the desert environment, it is suggested to store up to ten gallons per person in a cool dry place. Do not forget that pets need water too. Pre-packaged bottled water can be stored for two years if it remains sealed. Water that you have bottled should not be stored more than a few months before it is replaced. If you require additional emergency water, the water in your hot water heater tank or the top tank of toilets can be used. Do not drink swimming pool water. Purifying your own water should be used as a last resort.

To Purify Water: Boil it vigorously for one to three minutes, or add any household bleach solution that contains 5.25 percent of sodium hypochlorite and let it sit for 30 minutes. The following table shows the proper amount of 5.25 percent solution to add to water.

<i>Amount of Water</i>	<i>Amount of solution to add to:</i>	
	<i>Amount of water</i>	<i>Clear water</i>
1 quart	2 drops	4 drops
1 gallon	8 drops	16 drops
5 gallons	1/2 teaspoon	1 teaspoon

Apartment & Mobile Home Plan

A major earthquake can damage apartment complexes and mobile home parks, and can injure or kill residents. The following steps should be taken by owners or managers.

- Consult local building codes to ensure that your building meets current seismic safety standards.
- Develop a specific emergency plan. Include measures for storing water and food, obtaining first aid training, appointing floor or area leaders, conducting drills, and other such activities.



- Encourage mobile home residents to better secure their homes by leaving the wheels on rather than removing them, installing structural support bracing systems, and securing the coach's awnings. (A list of state certified bracing systems is available from the State Department of Housing and Community Development.)
- Provide tenants with information on how to secure furniture and other household items and on what to do during and after an earthquake.
- Encourage tenants to develop individual family plans for shutting off damaged utilities, reuniting family members, and evacuation, if necessary.



- Identify residents with special needs such as mobility impaired, non-English speaking, elderly, or hearing and sight impaired. Make sure their needs are addressed in the emergency plans.
- Organize teams that are responsible for first aid, search and rescue, communications, and firefighting. Compile a list of tenants' resources and skills.
- Practice earthquake drills in the complex or park.
- Organize a meeting at which a local emergency and disaster planner can provide detailed information on earthquake preparedness.

Fact or Fiction

Assistance from police, fire, or other government or utility services may not be available for three or more days

Fact: Unfortunately you need to take this fact into account when preparing for an earthquake. You may also be without power, phones, water, and/or transportation.

Standing in a doorway during an earthquake is safest

Fiction: In modern frame buildings, the doorways are not stronger than any other part of the house. It also increases your chances of being hit hard by a swinging door. However, the doorway is the safest place in unreinforced masonry buildings.

"Triangle of Life" method of protection

Fiction: This is a dubious concept created by a discredited publicity seeker amplified by the Internet. All earthquake authorities agree that "drop-cover-hold" is the best protection in an earthquake.



The fault cracks the earth open

Fiction: The earth may shake up and down or side to side, the ground may settle (subside), and sections drop, making it seem like cracks opening. The earthquake is caused by friction on the sides of the fault; if it splits apart, there is no friction.

Animals sense earthquakes before they happen

Partial Fiction: While there is no conclusive scientific data, some animals may sense the first shock wave that travels faster than the shaking waves. This shock wave arrives a few seconds before the shaking starts.



Earthquakes happen in early morning and during hot and dry weather

Fiction: The geology of the Earth does not "know" what time it is, and earthquakes can happen at any time of the day or night. Weather does not affect the geology in the ground.