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## **DISASTER PREPAREDNESS**

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There are many different kinds of disasters: earthquakes, fires, floods, chemical spills, and explosions, to name a few. Santa Barbara seems to have seen them all in recent years. The following information is taken from a number of publications and condensed to help you be better prepared for what comes next. After all, as volunteers in emergency service and disaster relief, we will be unable to help others if we have failed to take sufficient precautions to minimize injury and damage to ourselves, families, and property. While the following is based on earthquakes, it will help you through other disasters.

### **Preparation**

Have periodic family meetings to discuss and update your plans for disaster preparation, evacuation actions, drills, etc. Be sure everyone knows how and where to shut off utilities and the location of first aid supplies. Everyone in your family should have the name and phone number of several friends or relatives living out of the area because local phone service may be out but long distance calls often go through. The out of state contact can collect information on your family and forward it to other relatives who may be concerned.

Know your children's schools' policies. Explain to your children that you may not be able to get to them right away but they will be taken care of at school. You might have a friend in walking distance of the school who could pick your children up with proper pre-planning with the school and your children.

As part of your disaster plan, select a place where you will all meet if, for some reason, the family is scattered and can't get home. A beach or park for example.

Inspect your home room by room. Pay special attention to bedrooms, where people are most apt to be in an earthquake. Things are going to fall or fly off shelves and counters. Are the beds under windows, pictures, or shelves? Secure pictures to the wall and place only soft objects over the head of the bed (teddy bears, not books!). Is tall furniture secured to the wall? Are computers, stereos, TV sets, and similar appliances secured? Keep breakables, heavy objects, flammable or hazardous liquids in secured cabinets or on lower shelves. Water heaters, refrigerators, tall and heavy furniture, etc., should be fastened to wall studs. Secure cabinet doors and loose objects, especially heavy ones, that could fly around in an earthquake. Hardware stores carry special fasteners and straps for this purpose.

Consider installing gas shut-off valves on your gas lines. There are systems that will activate automatically on an earthquake but allow you to reset the service yourself. If you shut the valve off yourself with a wrench, you will need to know the proper procedures and precautions for

turning it back on, or have the gas company reset it, which may be days or even weeks later.

Buy a 32 gallon trash barrel and locate a place in your yard where it will be out of the way, preferably in the shade, and secure it to a fence or wall with straps. Fill it with tap water and add about 3 teaspoons of bleach. If you need to drink the water, you can purify it further at the time of use by adding 2 drops per quart (4 drops for cloudy water). This water can also be used for hygiene, dish washing, etc. In addition, you can store plastic bottles of water outside in a storage shed or container; recycle it every 3-6 months. Figure on 2 quarts of drinking water per day per individual; additional purified water will be needed for cooking. With sanitation requirements, 1-2 gallons per day per person may be required.

Start a cache of food to be stored outside in a shed or container. Recycle yearly (a good way to remember is when the Thanksgiving food drives take place). Be sure insects or rodents can't get to it. And remember to include a can opener!

Plan for cooking and heating. Cans of Sterno can supply come cooking heat, as can cook stoves, barbecues, etc. Do NOT use charcoal grills or camp stoves inside because of the danger of carbon monoxide poisoning. The fireplace can be used for cooking and heating, but check thoroughly for cracks and damage before use.

It is unlikely your house will be uninhabitable, but you can plan for the situation by placing in your outside storage area a small tent, sleeping bags, cook stove, and other items you will need to "camp out" in the back yard for a few days (or if you have to evacuate the area).

You can take a trash barrel and put food and water on the bottom. Layered on top of this place tarps, bedding, clothing, personal supplies, etc. At the top place items that would be of immediate need, such as first aid kit, flashlight, radio, etc.

Several members (if not all) of the family should have first aid and CPR training. Make sure you have a thoroughly stocked first aid kit.

Have a flashlight in every room, preferably kept where family members can get to it without getting out of bed or a chair. Rechargeable night lights that plug in to the wall outlet and go on automatically when the power fails are good choices.

Have fire extinguishers in your kitchen and garage and one other area of the house, such as the computer room.

During a power outage, keep the refrigerator door closed as much as possible. A full fridge will keep colder longer. If you have a deep freezer, keep a couple of bags of ice or several plastic bottles of water in it. Put them in your refrigerator in an emergency so they will help keep food cool. It will also provide you with extra water.

### **During an Earthquake**

Most structures in this area are very earthquake safe. Those that are not bolted to their foundations have “soft” first stories (a room over a garage), or with weak or unbraced cripple walls (short walls and studs between the foundation and floor) are the most hazardous.

A majority of injuries are caused by falling, flying, and sliding objects; that’s why it’s important to fasten things down. If you’re indoors, get under a table, desk, or bed, against interior walls, or brace yourself in a strong doorway (careful the door doesn’t swing shut on your hands). Stay away from windows, mirrors, hanging objects (ceiling fans, chandeliers), fireplaces, and all, unsecured objects. Don’t run outside.

If you are outdoors, move to an open area away from buildings, trees, power poles, brick or block walls, and other objects that could fall. Most injuries are caused by falling debris.

If you’re in a vehicle, stop and stay in it until the shaking stops. Avoid stopping near trees and power lines and on or under overpasses.

If you’re in a high-rise building, get under a desk or other cover until the shaking stops. Stay away from exterior walls and filing cabinets. Don’t use the elevator.

If you’re in a store, get under a table or other sturdy object, or in a doorway. Avoid stopping under anything that could fall in a grocery store or other place with many loose items; try for the end of the aisle. Don’t dash outside; choose your exit carefully.

### **After a Disaster**

DO NOT DIAL 9-1-1. Yes, we had an earthquake! Emergency lines are always jammed by people with such dumb questions!

You’re own your own for a while, even if your house is on fire or people are injured. Emergency service of any nature is unlikely to be available.

Make sure all phone handsets are on the cradle. If one is “off the hook,” you will not be able to make or receive calls. Have at least one phone that plugs directly into the phone jack in the wall because cordless phones won’t work if the power is out.

Cell phones will be unavailable or unreliable for several days or even weeks. Be sure your family doesn’t rely on them to keep in touch; have a backup plan.

Put on clothing and shoes immediately. There will be a lot of glass and debris around. Wear work gloves and safety goggles when cleaning up debris.

Check for injuries to yourself and others and administer first aid.

If your home is structurally damaged and someone is trapped or needs medical attention, place a HELP sign where it can be seen from the street or the air then return to the injured person. In a major quake with lots of damage, put an OK sign up if everyone is all right.

Check for fires and fire hazards. Don’t shut off gas at the main unless a leak or emergency exists. You can turn off appliances at their connections to the gas service if you wish. Leaks can be determined by listening for a hissing sound, smelling for the distinct odor, looking for a rapid movement of any of the hands on the gas meter, and looking for obvious structural or appliance damage. Turn off the gas before you turn off the electricity.

Turn an AM radio station to the Emergency Broadcast Station for advisory information. Store batteries in the radio with a slip of paper between the battery and the contact to keep them from discharging.

Be prepared for immediate evacuation at any time as the situation changes. (Keep your cars’ gas tanks at least half full at all times.) DO NOT GO SIGHTSEEING; LEAVE ROADS CLEAR FOR EMERGENCY USE.

If you have a generator, be sure all gas and electrical hazards are identified and mitigated before starting your generator.

Fill the bathtub so you will have extra water. If water is not flowing, turn off the water at the street or the house service line. This will avoid contaminated water entering the house lines.

If electrical system is damaged, turn off the main breaker. Stay away from downed lines and items they are touching. Do not turn electricity back on if you smell gas. Do not use candles for emergency lighting unless absolutely necessary. It is much safer to use chemical “light sticks” or battery-powered lanterns.

Check that sewage lines are intact before flushing toilets. Fill a sink then release the water. If it flows freely, the house lines are OK. Go outside and check for obvious wet areas, etc. If everything seems OK, it is probably safe to flush a toilet, but plug the bathtub and sink drains first to prevent sewage backup into them. If the water is off or pressure limited, use the water in the bathtub or other sources like the hot water heater to flush the toilet.

Clean up debris and hazards. Open closets and cupboards carefully.

Check on neighbors. Render help if needed. Take stock of supplies that can be pooled.

Check structure for damage, including roof and chimney. Be prepared to move outside or to a shelter.

Be prepared, and be sure children are prepared for aftershocks.

### **Water**

We mentioned a few things about water earlier. In addition to water in your hot water heater and bath tub, pool and waterbed water can be used but not for drinking or cooking.

Keeping your body hydrated is critical. Figure on one quart of water per day per person. Alternate sources of water are soda (preferably decaffeinated) and beverages (not alcohol), liquid from canned foods, etc. If you have

elderly persons or small children in the family, keep some sports drinks on hand to replace electrolytes.

Dysentery, infectious hepatitis, and typhoid fever are diseases that are caused by contaminated water. Don't assume water coming through water lines is pure. Disinfect all water by boiling for five minutes, filtering through special material, using water purification tablets per directions, or using 10-16 drops of household bleach per gallon of water and let stand 30 minutes.

### **Food**

Grocery stores may be closed for days. For your home supply, choose foods that store well without refrigeration and don't require cooking. Most families have a reserve supply in their pantries of foods the family likes. Keep about a two-week supply on hand as you rotate food. Store staples such as crackers and cereal in plastic containers. Buy foods low in sodium so you won't deplete your water supplies digesting them. Rotate foods once or twice a year to avoid spoilage. If power fails, first eat food from the refrigerator. Next, freezer food (which should last several days if the door is kept closed). Your non-perishables can be consumed last.

Military and survival rations store for long periods of time but remember they are very different from the foods you normally consume and may cause digestive disturbances. They are also high in fat and sodium. If you keep them, periodically serve some to get used to the taste and see how you tolerate them.

Make sure your emergency food and water supplies are stored where they will not be damaged (fall off shelves and break) and you will be able to get to them. (If they are in the garage and something blocks the door and the power's off so you can open the garage door, how will you get to them?)

### **Medicines**

If family members take medicines regularly, either prescription or over-the-counter, have about three days' supply in your emergency kit. Rotate them at least twice a year. An alternative, though not as desirable, is to have meds in a single location so you can scoop them up if you have to evacuate. Renew prescriptions in time to have about a week's lead time.

### **Children and Pets**

Be sure you have at least a three-day supply of diapers, canned formula, and baby foods. If the infant is breast-fed, be sure to allow extra calories for mother. Include a few toys, games, and books to keep the smaller children amused. Children take their cues from you about the disaster. If you are calm and quiet, they will be comforted; if you're hysterical, they will be frightened.

Keep some pet food, litter, medicines, carrying cases, and other necessities for your animals.

### **Sanitation**

If the sewer system isn't working, a portable camp toilet, a sturdy bucket, or small trash can be used. You can also use the toilet without flushing it. Line with a heavy duty plastic bag and use twist-ties to secure it. A large receptacle with a double bag liner can store the smaller bags. Be sure it has a tight-fitting lid. Powdered chlorinated lime, household disinfectants (bleach), deodorants, and insecticides may be added to sewage.

Keep toilet paper, soap, disposable wipes, diapers, etc., in your emergency container.

### **Money and Documents**

Include an adequate supply of cash on hand. ATMs won't be working, nor will most electronic cash registers; merchants may not accept checks. If you plan ahead and keep plenty of food, water, and fuel in the automobiles, you should not need a large amount of cash.

Documents should be kept in a fireproof safe, safe deposit box, or freezer in a plastic bag. Copies of documents could be kept with a friend or relative, at the office, or even in the tool shed. Include insurance policies, household inventory, Social Security cards, birth and marriage certificates, drivers' licenses, credit cards, deeds, savings and checking account information, wills, health history, recent photos, etc.

### **Emergency Kits**

Each family should have an emergency kit at home. In addition, each vehicle should have an emergency bag, such as a backpack, that will enable occupants to be self-sufficient for a day should they become stranded.

Emergency blankets are very thin and reflect body heat back. A 56 x 84" blanket folds to fit in the palm of your hand.

Your emergency kits should contain personal items (extra clothing, personal hygiene supplies, etc.), first aid supplies, shelter supplies (tent, sleeping bags, etc.), cooking supplies (paper plates, plastic utensils, Sterno, cook pots, etc.), Sanitation (soap, toilet paper, towels), food and water, safety equipment (flashlight, gloves, dust mask, goggles), and a tool kit with basic small tools.

The following list will give you some ideas of things you might put in your emergency kits at home, at work, and in the vehicles.

**Personal Items**

Baby powder  
Cash & quarters for phone  
Dental floss (also use to tie)  
Deodorant  
Eyeglasses/contacts (spare)  
Facial tissue  
Feminine hygiene items  
Hairbrush/comb  
Important phone numbers  
Insect repellent  
Jacket/sweater  
Mirror  
Mouthwash  
Pants  
Poncho/rain suit  
Razor and blades  
Sewing kit  
Shampoo  
Shirts  
Shoes  
Socks (wool & cotton)  
Sunglasses  
Sunscreen  
Toothbrush/paste  
Vaseline/hand lotion/body oil  
Wool cap, visor hat/cap  
Wool gloves  
Underwear

**First Aid Supplies**

Advil or Nuprin (anti-inflammatory, pain)  
Alcohol  
Anti-acid/anti-gas  
Anti-bacterial wipes  
Anti-diarrheal  
Antiseptic cream with anesthetic  
Aspirin (pain, anti-inflammatory, fever)  
Band Aids  
Burn cream  
Cloth tape  
Cold packs (instant)  
Cotton Swabs  
Cough drops  
CPR mask  
Dust/Bacteria mask  
Elastic wraps  
First Aid book  
Gauze pads, 4"  
Gloves, latex/vinyl  
Hand sanitizer  
Heat Packs (instant)  
Hydrogen peroxide  
Laxative  
Mirror  
Nail clippers  
New Skin  
Prescription meds  
Scissors

Throat lozenges  
Tweezers  
Tylenol (fever, pain)

**Cooking Supplies**

Aluminum foil  
Can opener (manual)  
Cook pans  
Bottle opener  
Hibachi, fuel  
Paper/plastic plates/bowls  
Paper/plastic cups  
Plastic wrap  
Plastic utensils  
Sterno stove/fuel  
Swiss Army knife  
Zip-Lok bags

**Sanitation**

Baby wipes  
Bleach  
Diapers  
Pet litter  
Soap, antibacterial  
Soap, hand, liquid  
Toilet paper (Zip-Lok bag)  
Towels, cloth  
Towels, paper  
Water purification tablets

**Food/Water**

Canned food (meat, fish, vegetables, fruit, soup, macaroni, spaghetti, beans, baby formula, pet food)  
Cheese spread  
Dried fruit  
Drinking water (1qt/person/day)  
Jelly  
Juice  
MREs  
Peanut butter  
Powdered milk, creamer  
Pudding  
Salt, pepper  
Snack, candy, nutrition bars  
Sports drinks/concentrate  
Sugar, sweeteners  
Survival rations  
Trail mix, granola, nuts

**Safety Equipment**

Batteries  
Dust mask  
Flashlight  
Gloves, leather  
Goggles  
Headlamp  
Knife  
Light sticks  
Safety helmet  
Whistle

**Tool Box**

Crowbar  
Electrical/duct tape  
Flares, highway  
Hammer  
Jumper cables  
Pliers/Needlenose pliers  
Rope  
Screwdrivers, slot/Phillips  
Super glue  
Soldering iron/solder  
Wire cutters  
Wrenches, Allen  
Wrenches, socket