

CREATING A CULTURE OF PREPAREDNESS



SURVIVAL BASICS: EMERGENCY KITS

Readiness Means Having the Essentials at Hand



Photo: David Pereiras, istock.com

Develop an emergency kit for each place you spend time in: at home, at school and at the office.

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Being prepared for what life brings your way — everything from a vehicle breakdown to a natural disaster — means having the items that meet your basic needs at hand. Emergency kits should include essentials that will help sustain you and your family for as long as you need or until help arrives. That could be a few days, a few weeks or even months. Consider what you might need in the event you are isolated in your home without power or utilities, need to evacuate with little notice or are stranded on a roadside.

All emergency kits should contain the basic needs for life: food, water, warmth, first-aid supplies, medications, medical equipment and protection from the elements. You also need alternative lighting and materials for cooking, sanitation and waste management. You will likely need more than one kit. Each kit should contain items for its specific location or use. Make sure your emergency kit meets the unique needs of your family.

One emergency local officials are preparing for is the Cascadia Subduction Zone Event. We do not know when the next Cascadia Subduction Zone earthquake and

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Discover what an earthquake and tsunami are like in OSU Extension's free online training. Preparing for the Cascadia Subduction Zone Event. Videos, virtual reality simulations, interactive maps, a Cascadia checklist and other resources will help you prepare for natural disasters.

FREE at beav.es/Cascadia

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resulting tsunami will occur. Scientists say there is 37% chance that an earthquake with a magnitude of 8.0 or higher will occur along this fault in the next 50 years. People who live, commute and travel through these areas need to consider all the places where they spend time and develop emergency kits for each.

The home

In the immediate aftermath of the Cascadia event, help will not be readily available. Even with all the planning, securing help will take time. Be prepared to help yourself and your family. Neighbors helping neighbors is a good strategy. Plan to share skills and some resources during your response and recovery.

Household

Your home is the primary area where preparedness needs to happen. Emergency agencies agree that we all need to be able to survive without modern conveniences for a minimum of three days. In the case of the Cascadia Subduction Zone event, the suggestion is two weeks, with many local emergency managers suggesting at least four weeks until emergency supplies can be begin to be distributed. This event has the potential of knocking out our entire modern infrastructure, including utilities (power, water, sanitation) and transportation (roads, bridges, fuel, supply chain disruption). It could leave us without the ability to run to the store to purchase what we need or even to live life as we used to.

Go bag

In addition to being prepared throughout the house, develop a grab-and-go kit to store near an exit from the home. As soon as the shaking stops and you can leave the protected spot where you took refuge, leave the home and take the go bag with you.

If you live in the tsunami inundation zone, an area that is at risk of flooding or if your home is severely damaged in the quake, this go bag is what will sustain you until outside help can arrive. Think about what you will need to live on for a minimum of three days. That is what needs to be in this kit.

The primary concern with the go bag is weight. Think of lightweight ways to include water, food, first-aid supplies and shelter from the elements. Water will be hard to include in the amounts needed for three days, so consider a water purifier designed for backpackers that removes 99.9% of all contaminants. These devices allow you to use nonpotable water from ponds, creeks and rivers for drinking, cooking and personal sanitation. Do not drink or clean with floodwaters.

For food, consider weight — perhaps tuna in a foil pouch and chili in a box rather than a can. Also include a soft-sided, comprehensive first-aid kit and a complete



Photo: Patrick Corcoran, © Oregon State University

The essential items of a go bag: outerwear, water, water purifier, food, an emergency blanket, tools, money and a source of light. Remember personal toiletries, and try to minimize weight.

change of clothes. When developing the go bag, consider items used when backpacking — a lightweight, compact camp stove and mess kit; emergency blankets; lightweight sleeping bag; tarp and rope for shelter or a lightweight tent; and a multi-tool that combines a knife, saw, etc., in one tool. Also include wind-up or battery-powered LED flashlights. All of these items will need to fit into a carrier that will allow your hands to be free. Consider using a backpack-style carrier.

The vehicle

Many people spend a fair amount of time in their vehicles just getting to and from work. We also take road trips to visit friends and relatives. The Cascadia earthquake could occur while on the road. In addition, other emergencies such as severe weather, running off the road in a remote location or even getting lost are possible. A car survival kit should include all the same basic survival items already discussed plus additional items.

The focus of this kit is durability and sustainability. It will be subjected to climate changes. Change out the water every six months, especially if you store the water in plastic containers. Extreme weather changes

Ingredients of a home emergency kit

- 1. WATER:** You'll need a minimum of 1 gallon of water per person and pet per day. Store as much water as possible in food-grade, durable, plastic jugs and include a water-purifying system such as a countertop water-filtration system that will remove 99.9% of contaminants, including bacteria and viruses. (See *Survival Basics: Water*, <https://catalog.extension.oregonstate.edu/em9285>.)
- 2. FOOD:** Choose items that are shelf-stable, easy to use and easy to cook, such as canned foods. Remember the manual can opener! Purchase canned foods your family enjoys when they are on sale. Stock your pantry with some home-canned or dried foods. Be sure to use safe, up-to-date recipes. (See *Survival Basics: Food*, <https://catalog.extension.oregonstate.edu/em9331>.) Secure glass jars to protect them from breakage during the earthquake. Remember to include the equipment and utensils needed to prepare your stored food. (See *No Power? No Problem!*, <https://catalog.extension.oregonstate.edu/em9278>.) Develop a system to use your stored foods and replace them with fresh products every six months to a year. Do not eat canned foods contaminated by floodwaters. Listen to broadcasts from your local emergency manager for recommendations and updates.
- 3. PROTECTION FROM THE ELEMENTS:** Check the exterior of your house for damage, making notes and taking photos for FEMA and insurance claims. See *Preparing for the Cascadia Subduction Zone Event*, session 3.4 and Module 3 resources, <https://beav.es/Cascadia>. If your house is deemed safe to stay in, protection from the elements would include ways to stay cool (in the summer) and warm (in the winter). (See *No Power? No Problem!*) However, the home may not be safe to live in, so emergency planning needs to include an alternative shelter such as a tent or RV and whatever is needed to live in the alternative space. Pack sleeping bags and clothing for warm and cold weather, and think of ways to create heat for staying warm. Consider rain or snow gear for your portable kits. If evacuating, grab the laundry basket to ensure that growing children will have seasonally appropriate clothing of the right size.
- 4. FIRST-AID SUPPLIES:** The Cascadia earthquake will cause many injuries, and with the transportation infrastructure disrupted, going to a doctor immediately may not be an option. You need a comprehensive first-aid kit with a first-aid manual. This kit should include sterile bandages of all sizes and shapes, gauzes in multiple sizes, splints, triangle bandages, elastic bandages, first-aid tape, suturing options (such as butterfly bandages) and sterilizing items (such as hydrogen peroxide or rubbing alcohol). With risk of disease, dust and smoke, include at least three washable masks and three N95 or KN95 masks per person.
- 5. MEDICATIONS:** Contact your doctor about prescriptions for an emergency. You may be able to get a few weeks ahead of the usual refill schedule.
- 6. CLEANLINESS AND WASTE MANAGEMENT SUPPLIES:** Our bodies will still need to excrete waste and be kept clean, so consider alternatives for bathroom use. The twin-bucket waste system is a viable option for human waste. Pair it with a hand-washing station with soap. Have an alcohol-based hand sanitizer on hand if clean water is not available. (See *Survival Basics: Sanitation and Waste Management*, <https://catalog.extension.oregonstate.edu/em9334>.)
- 7. COMMUNICATIONS PLAN:** Every family member should have a written copy of the family communications plan. See the Ready.gov website for tools and guidance to help you prepare this valuable document. See the fillable card, https://www.ready.gov/sites/default/files/2020-03/family-communication-plan_fillable-card.pdf. Be sure to pack paper and pencil so you can leave notes for people who may be looking for you.
- 8. IMPORTANT PAPERS:** Store copies of the financial records (paper copies or memory stick) that will be important to receiving aid in a disaster. Include insurance policies, court documents, passports, medical and veterinarian records, etc. Store them in a watertight bag. Without electricity, credit cards won't work — so have some cash (some in small bills) on hand. FEMA and your insurance company will require documentation after the disaster. A small journal will be helpful to document damage. This will help speed up an application for help or reimbursement. Take notes of damage and injuries (include dates and times) and keep your smart phone charged so you can take pictures of damage.
- 9. SOLAR CHARGER:** Cell towers and power may be out for some time, but keeping your smart phone charged provides you with valuable tools — a flashlight, compass, GPS coordinates, camera, etc. — to document damage for insurance or FEMA aid requests. If purchasing a NOAA Weather Radio for your kit, look for one that can charge electronics with the right-sized port with a hand crank and solar power. Portable solar panels with charging ports are available in various sizes and charge devices more quickly.
- 10. EARTHQUAKE UNDER-THE-BED KIT:** In the event that the Cascadia earthquake occurs while you are sleeping, stay in the bed and cover your head with a pillow. Even in areas with moderate shaking expected, glass can break. The first thing you will need to do is get up and move safely. Prepare ahead by packing a small bag or pillowcase with sturdy shoes, clothes, flashlight, water and some first-aid supplies and tie it to one of the legs of the bed. Once the shaking stops, you can get dressed then retrieve your go bag and exit the building to assess damage. Remember to look up, look down and all around before your step over the threshold or exit through a window. Aftershocks can cause additional damage, so don't underestimate in your damage assessment.
- 11. PETS:** Pack applicable supplies from the above list for your pet. In case of evacuation, emergency animal transport and animal shelters may have limited space, so it is important to have a hard-sided pet carrier that can be stacked to speed up rescue and keep your pet safe. Use permanent marker to put identifying information on the outside of the carrier. Inside the crate, tape a sealed plastic bag containing a copy of your pet's vaccination record, contact information for you and your family, a photo of you, and the number of an out-of-state emergency contact.

can affect the quality of the water by allowing free plastics to leach into the drinking water. Consider storing water in stainless steel containers, leaving room for the water to freeze during winter weather. Stainless steel can be placed on a hot motor to warm (or thaw) the water and can be used to heat soup or other ready-to-eat food where plastic and glass cannot.

Consider extreme temperature changes when choosing food. Commercially canned products can safely handle these extremes. In addition, commercially canned soup can be eaten cold or heated in and eaten directly from the can.

Again, remember the first-aid kit and protection from the elements including a sleeping bag or blankets, and a complete change of clothes (including weatherproof jacket, hat, pants and shoes or boots). If possible, use the vehicle as shelter.

Additional items include fire-starting supplies, road flares, SOS signaling devices, flashlights, solar chargers, and notepad and pen or pencil for leaving notes. Keep your gas tank at least half full.

The office or workplace

Every office or workplace should have an emergency plan. Such plans usually consider communication and the health and safety of employees. But often, they do not include emergency food and water. Consider expanding that plan to include food and water in the event employees must shelter in place at work. Then personally add your own “under desk” emergency kit. The desk is often where we take refuge during the earth’s shaking, so a small kit is important. It should include a bottle of water, comfort food and a protein bar, an emergency whistle (in case falling objects render you trapped), a dust mask, a small first-aid kit (the office should have a large, comprehensive kit), and a list of emergency and family phone numbers. Include walking shoes.

School

Schools have plans for keeping students as safe and secure as possible. It is the responsibility of parents or guardians to know the school’s plan and to develop a family reunification plan with the school’s plan in

mind. If you are evacuating to an identified community assembly area along the coast, do not leave this area for 24 hours. Wave surges — some larger than the original tsunami — are expected. Plan ahead to reunite with your loved ones the next day.

Due to the emotional stress involved with disasters, parents should consider creating a small kit for each of their children. A shoebox or simple backpack works well for this, as they are easy to store in cubbies and lockers. The focus of this kit is the emotional well-being of the child. This kit should include a bottle of water, protein bar, small first-aid kit and a copy of the family communication plan, including emergency phone numbers. It should also include a favorite snack, a photo of parents or the family to provide comfort and expedite reunification, and a familiar game or toy such as a stuffed animal for younger kids or a deck of cards for older ones. Keep photos of you with your children and pets to help facilitate reunification if you become separated during the disaster.

We know a catastrophic earthquake will occur sometime in the future, we just do not know when. Ready-to-use emergency kits are key elements of resiliency and survival, ensuring we can meet our basic needs.

Resources

No Power? No Problem: Tips to Help You Thrive in the Face of Disaster, EM 9778, Oregon State University Extension. <https://catalog.extension.oregonstate.edu/em9278>

Survival Basics: Water, EM 9285, Oregon State University Extension. <https://catalog.extension.oregonstate.edu/em9285>

Preparing for the Cascadia Subduction Zone Event. Online learning system. Oregon State University Extension. <https://beav.es/Cascadia>

Survival Basics: Food, EM 9331, Oregon State University Extension. <https://catalog.extension.oregonstate.edu/em9331>

Survival Basics: Sanitation and Waste Management, EM 9334, Oregon State University Extension. <https://catalog.extension.oregonstate.edu/em9334>

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