

NATURAL DISASTER SURVIVAL TIPS

FIRE

INDOORS

Kitchen Safety

- Pay attention when you cook.
- Stay in the kitchen when you are frying, grilling, boiling, or broiling food.
- If you must leave the room even for a short period of time, turn off the stove.
- **When you have finished cooking, turn off all burners and ovens.**

Microwaves

- Never use an extension cord for a microwave since it can overload the circuit and cause a fire.
- **Never use aluminium foil or metal objects in the microwave.**
- Remember that even if containers feel warm, the contents themselves may be very hot and can cause severe burns.

Extinguishing Grease Fires

- Cover your pan with a lid.
- Turn off the burner.
- **NEVER pour water on a grease fire.**

- **Extinguish the fire if the fire is minor.** It can be put out fast with a household A-B-C-type **fire extinguisher** or a **fire blanket**. **Ensure you have these easily to hand** and that all family members know where they are and how to use them.

- **Shut off any and all fuel lines, including propane, natural gas, and oil.**

- **Turn on all your cold taps.**

- **Ensure your family is aware of the safest escape route out of the home, and that it's never obstructed.**

- **Stay low.** Smoke rises. To maximise your chances of surviving a fire, remember it's always best to crawl out of the building.

- **Feel if the door handle is hot, *before* exiting.**

- **Close the door behind you** to keep the fire from spreading.

- **If smoke is present in a stairwell, avoid it, and choose another route.** Thick smoke can make it impossible to see and toxic chemicals from smoke can be deadly in MINUTES.

- **If your clothes catch fire: Stop, Drop, and Roll!**

OUTDOORS

- **Stay low to the ground.**

- **Cover your nose and mouth with a wet cloth**, and hold it there until you get to safer grounds. If you are hiking, you should have water and some type of cloth with you, like a bandana. Pour water over the bandana and use it as a makeshift "respirator" until you escape.

- **The most dangerous places to be in relation to the fire are uphill from the flames and downwind from the fire. Try to stay upwind of the fire at all times.**

- **Use the wind as a guide. If the wind is blowing past you and toward the fire, then run into the wind. If the wind is behind the fire and blowing toward you, run perpendicular to the fire** so that you are escaping both the actual flames and the course they will blow towards.

- **Remember that winds can carry sparks** and start new mini-fires up to one mile ahead of the existing flames. **Do not allow yourself to become surrounded by fire.**

- **Look for nearby areas that are free of trees and brush. If you can put a water body between you and the fire, do so.**

- **Places which have already burned are sometimes the safest place to go, if you do not have any other options.** However, you should ensure that the area is completely extinguished before proceeding, as lingering fires could cause burns and breathing problems.

- **Low-lying areas are generally considered safer**, if there is not a lot of vegetation there.

- **Stay away from canyons, natural "chimneys," and saddle-like ridges.** These areas leave very few options if the fire suddenly spreads around you, and a canyon could leave you trapped in a dead end.

IF TRAPPED

- **If at all possible, take refuge in a building. Remove any combustible objects from the yard, especially gas grills and fuel cans**, and discard them as far from your structure and any nearby structures as possible.

- **Move curtains and fabric-covered furniture away from windows and sliding doors.** If the glass breaks, you do not want anything flammable near the window/door.

- **If the building has hoses and running water, saturate the roof of the building, the walls, and the ground immediately surrounding the building.** Fill any large containers present with water (if possible), and surround the perimeter of the building with them.

- **Close all the doors, windows, and vents in the building to prevent a draft from spreading the fire inside.**

- **Do not lock the doors to the building.**

- **Stay away from exterior walls.**
- **Stay inside.** If the fire surrounds the building, you're more likely to survive inside than out.
- **If there is not a building close by, take refuge in a vehicle if possible.** Drive if you can, but not through heavy smoke. **If you cannot drive, roll up the windows and close the air vents. Lie down on the floor of the vehicle and cover yourself with a blanket or coat, if possible.**
- **If you are near a body of water, like a river or pond, seek safety in the water or use it to keep some distance between you and the fire.**
- **If you are near a road or ditch but cannot follow the road to safety due to the width of the fire, you may be safest using the road as a barrier.** If you become trapped, lie face-down on the pavement as far from the fire as you can get. **If there is a ditch on the far side of the road, lie in the ditch face-down.**
- **When you hunker down, try to cover your body with anything that will protect you from the fire. Wet clothing or a wet blanket are useful,** but in a pinch even covering the back of your body with **soil or mud** may help keep you cool in the intense heat.
- **Stay down until the fire passes**

BLIZZARD

INDOORS

In a building:

- **Stay inside.**
- **Close off unneeded rooms to save heat.**
- **Stuff towels or rags in cracks underneath doors to conserve heat.**
- **Cover the windows at night.**
- **Eat and drink to prevent dehydration.**
- **Wear layers of loose-fitting, light-weight and warm clothing.**

Stranded in a vehicle:

- **Tie a coloured cloth to your antenna or door.**
- **Stay inside your vehicle.**
- **Run the motor for ten minutes each hour. Crack the windows to avoid carbon monoxide poisoning.** Make sure the exhaust pipe is not blocked.

- Raise the hood after the snow stops falling.
- Exercise to keep warm and keep your blood flowing.

OUTDOORS

- Prepare a lean-to, wind break, or snow-cave for protection against the wind.
- Ideally, you dig a snow cave into a drift, bank, or slope that's at least six feet deep. Pack the snow down before you dig the cave to make the structure stronger.
- Dig a tunnel, sloping upward, then, hollow out the cave itself. If you are sure that the temperature is below freezing, you can pour water onto the outside to strengthen the cave. **The doorway and the ceiling should be arch-shaped** to take advantage of the arch's natural structural integrity.
- Add air vents by using a stick or ski pole to poke holes through the top of the cave. Cover the entrance with rocks or a tarp, but make sure that fresh air can still get through. Plenty of fresh air is important!
- If you don't have the right conditions for building a snow cave, you can also dig a trench in the snow and cover it with a tarp.
- Use pebbles to mark your path. Make a SOS with rocks in the snow, or put a bright article of clothing tied to a tree. Once you've left some clues, stay where you are if you can. You'll be easier to find if you're not a moving target.
- Build a fire, for heat and attention purposes, by clearing a spot in the snow, all the way down to the wet earth below. Use branches to create a platform, then place any dry wood (from dead tree limbs or a dead tree that's still standing) you can find on top of that.

NOTE: You should learn how to start a fire without matches or lighters. You can find out how to do it in a myriad of ways on this wiki: <http://www.wikihow.com/Make-Fire-Without-Matches-or-a-Lighter>

- Place rocks around the fire to absorb and reflect the heat.
- Do not eat snow straight off the ground, melt it first.

SNOWSLIDE/AVALANCHE

- Don't hesitate: move as quickly as possible to the side of the avalanche slope.
- Let go of your heavy equipment but not survival equipment, such as a transceiver and probe or snow shovel; you'll need these if you get buried.
- Hold on to something. If you're unable to escape the avalanche, try to grab on to a boulder or sturdy tree.

- If there's no object to hold on to or hide behind, **crouch low, turn away from the avalanche, and brace for impact.**

IF CAUGHT IN

- **Start 'swimming' uphill.** This is essential to helping you stay near the surface of the snow. The human body is much denser than snow, so you'll tend to sink as you get carried downhill. Try to stay afloat by kicking your feet and thrashing your arms in a swimming motion **on your back**. This way your face is turned toward the surface, giving you a better chance of getting oxygen more quickly if you get buried.

- **Hold one arm straight above your head.** It should be pointed in the direction of the snow's surface. Spitting out a small amount of your saliva can help with figuring out which way is up because the fluid will run down.

- **Take a deep breath before the snow settles.** Right before the snow settles, inhale deeply and hold your breath for a few seconds. This causes your chest to expand, which will give you some breathing room when the snow hardens around you.

- **Dig a pocket around your face.** Once the avalanche stops, the snow settles in as heavily as concrete. If you're buried deeper than a foot or so when it sets, it will be impossible to get out on your own. Your only hope then is to ward off asphyxiation long enough for people to dig you out.

- **Conserve air and energy.** Try to move once the snow settles, but don't jeopardize your air pocket. If you're very near the surface, you may be able to dig your way out, but otherwise you aren't going anywhere.

- **Stay calm and wait.** Panicking will quickly deplete your limited oxygen supply so remain calm and try to conserve your oxygen use. If you can hear the voices of rescuers close, you can shout, but keep in mind that you will be able to hear them better than they can hear you.

EARTHQUAKE

INDOORS

- The main goal of "**Drop, Cover, and Hold On**" is to protect you from falling and flying debris and other non-structural hazard, follow it.

- **If you cannot hide quickly enough** under a sturdy furniture piece **stand against an inside wall**

- **Do not stand close to windows and doors, fireplaces and appliances (stay away from the kitchen!).**

– **Never use a lift** (elevator)

- If at hand (try to move the least possible inside your home) **protect your head** with a helmet or cushion.

- **Drop to the ground** until the shaking stops, and **as far as possible from buildings, trees, and power lines.**
- **If you're near the ocean, remember: TSUNAMIS; get to high ground fast.**
- Don't go into vehicle, **walk** when possible to a refuge area.

- **Cover your mouth** with cloth, don't move and just tap on a pipe or wall in order to be located, **shouting only as an ultimate resort.**

PRACTICE DRILLS AT HOME: the main reason being that it'll make you more aware of the dangerous spots in your house, which will obviously come very handy at a moment when you'll need to have quick thinking and not succumb to panic. Just those drills could save your life and the lives of your loved ones.

TSUNAMI

- If the **sea suddenly recedes** (draws back), which may be accompanied by a sucking noise, is a **major warning sign** that there is about to be a sudden surge of water inland.
- **Watch for animals leaving the area or behaving abnormally**, such as trying to seek human shelter or grouping together in ways they would not normally do.
- **Move inland, and to high ground or climb high if you are trapped**, choosing a tall, sturdy and solid building and climb.
- **Grab onto something that floats** (tree trunks, doors, fishing equipment...)
- Don't wait for warnings. If you think a tsunami is coming evacuate immediately and stay away from the beach.
- **Never go down to 'see the tsunami' come in. If you can see the wave you are too close to escape it.**

HURRICANE

- **Prepare your house** boarding the windows and strapping the roof.
- **If possible, prepare for evacuation by packing essential supplies in your vehicle and plan evacuation routes.**

- **Stay away from windows and glass doors.**
- **Don't be fooled by the eye of the storm** (the area of apparent calm in the middle of the storm).
- **Stay in a small interior room** or hallway on the lowest level BUT if you are in an area that is in danger of flooding, do not seek refuge below ground level (such as a basement).
- **Never drive through a flooded road or bridge and never stay in a flooded car.** If your car is surrounded by flood water, abandon it and move immediately to higher ground.
- **If your car is swept into the water and submerged, WAIT** calmly for the vehicle to fill with water. **Once the vehicle is full, the doors will open. Hold your breath and swim to the surface.**
- If you are **swept into fast moving floodwater outside of your car, point your feet downstream. Always go over obstacles, never under.**
- **Otherwise do not enter the floodwater,** it'll knock you down or the objects it'll carry will.

TORNADO

Move to any shelter. At the first sign of a tornado, or if a tornado warning has been issued, stop whatever you're doing and seek appropriate shelter immediately. If you are in a vehicle and a tornado is very near you, get out and seek shelter as soon as possible.

An underground tornado shelter or a specially designed tornado safe room is the safest place to be during a tornado. **If a tornado shelter is not available go to the basement of a building.**

INDOORS

- **Turn off utilities,** especially gas and electric.
- **Stay out of elevators,** as you could be trapped in them if power is lost. Instead, use the stairs to descend to the lowest floor.
- Mobile homes, even if tied-down, are unsafe during tornadoes. **Get out of mobile homes immediately and seek appropriate shelter.**
- **In a building with no basement, avoid windows and go to the lowest floor and seek shelter in a small room (a bathroom or closet, for example) that is located near the centre of the house, under a stairwell, or in an interior hallway with no windows.**
- **Bathrooms can be particularly effective** because they are fortified by pipes and you can lie in a bathtub.
- Make note of where very heavy objects are on the floor above you, and avoid the area beneath these, as they could fall through a collapsing floor.

- **Cover yourself with a mattress, cushions, blankets or sleeping bags.**
- If possible, **get under a heavy table, which can protect you from falling debris.**
- Regardless of where you are, **crouch low to the ground or lie down, face down and cover your head with your hands and arms.**
- **Once the tornado danger has passed, if you smell something that is burning or if you see a spark, get out immediately,** it could start a fire.

OUTDOORS

- If you are **stuck on the highway** and know a tornado is coming, and there is no way to find any indoor shelter, **pull over to the side of the road immediately. Go to the side of the road closest to the tornado, and find a low ditch. Lie face-down with your hands over your head and neck.**
- **On the open water. Get out of the water, if possible. If you're in the water** when a waterspout hits, **experts recommend trying to avoid it by sailing at right angles to its path, NOT straight away from it. If a strike is imminent, it's probably best to dive overboard,** as you then have a better chance of avoiding injury from flying debris, if your boat gets torn to pieces.
- **Don't seek shelter under bridges or overpasses.** It's a common misconception that these structures are safe, but research suggests that they are in fact extremely dangerous, as they can act as wind tunnels, actually strengthening the tornado's high winds.
- **Do not shelter under a tree or climb into a car, caravan or tractor. These are easily sucked up by tornadoes.**

FLOOD

Be aware of streams, dry riverbeds, drainage channels, canyons and other areas known to flood suddenly. Flash floods can occur in these areas with or without typical warnings like rain clouds or heavy rain. If it has been raining hard for several hours, or steadily raining for several days, listen to local radio or TV stations for flood information.

Identify where you could go if told to evacuate. Choose several places, such as a friend's home in another town, a motel, or a shelter. Make sure everyone in the family knows where each place is located and how to get there.

When you return to your home, stay away from power lines and electrical wires. Have your electricity turned off by the power company. Some appliances, such as television sets, keep electrical charges even after they have been unplugged. Don't use appliances or motors that have gotten wet unless they have been taken apart, cleaned, and dried. Use a flashlight to inspect for damage. Don't smoke or use candles, lanterns, or open flames unless you know the gas has been turned off and the area has been ventilated.

Be alert for gas leaks.

Look out for animals, especially snakes. Small animals that have been flooded out of their homes may seek shelter in yours, or in debris left on your property. Use a pole or stick to poke and turn things over and scare away small animals.

Look before you step. After a flood, the ground and floors are covered with debris including broken bottles and nails. Floors and stairs that have been covered with mud can be very slippery.

IF CAUGHT INDOORS

- **Make sure you put sandbags against the doors of your house** as they will give you some protection from the flood water.
- **Turn off all electrical and gas lines.** Disconnect electrical appliances. Do not touch electrical equipment if you are wet or standing in water.
- **Move valuables to higher points in your home.**

In a flash flooding:

- **Leave your belongings and get to the highest level possible as fast as you can.**
- **Get out on the roof, if possible.**
- **Don't "wait it out". If someone comes by in a boat or helicopter and offers you a way out – take it.** You can always evaluate your options after you're in a safe zone. Don't try to be a hero and tell them to get other people, they are there now and ready to rescue you now and they'll get to the others as they can - and they'll be glad to have you help once you are safe.

OUTDOORS

- **Keep rope and a stick in the car, and a life hammer if you have one.**
- **Move to higher ground away from rivers, streams, creeks, and storm drains.** Do not drive around barricades. They are there for your safety.
- **Do not ever go around a sign or barricade blocking off a flooded road.**
- **If evacuating in your car, drive through as little water as possible and take the shortest route to your meeting place.** Make sure you have your emergency kit with you.
- Know that **6 inches of water will reach the bottom of most passenger cars causing loss of control and possible stalling. Most vehicles begin to float in just 12 inches of water. 24 inches of water will sweep most vehicles (including SUVs and pick-ups) away.**
- **If your car stalls in rapidly rising waters, abandon it immediately and climb to higher ground.**
- **Shatter the window if your car is sinking and you're trapped.**
- **Never walk through moving water.** The currents in even 6 inches (15 cm) of water can be dangerous. In still water, use a stick or another long object to test the area and make sure it is safe.

- If you do fall and get swept into a current, *don't fight it*. Go with the flow, but twist so you are on your back with your feet together and pointing down-current to give you some steering ability and so you can see and avoid obstacles, like a turtle on its back. Keep your feet up to avoid being pulled under and to keep from whacking your feet on debris – the backs of your thighs can handle the hit better than your ankles.

LANDSLIDE/MUDSLIDE

Recognize a Landslide's Warning Signs

In most cases, landslides do not happen in an instant. There are often **warning signs** that can tell you that a landslide is coming. This gives you precious time to take safety measures:

INDOORS

- Doors or windows stick or jam for the first time.
- New cracks appear in plaster, tile, brick, or foundations.
- Outside walls, walks, or stairs begin pulling away from the building.
- Slowly widening cracks in the ground or on paved areas.
- Underground utility lines break.
- **Consider leaving.** If you are in areas susceptible to landslides and debris flows, consider leaving if it is safe to do so. If you smell gas, leave.
- **If you are near a stream or channel, be alert for any sudden increase or decrease in water flow and for a change from clear to muddy water. Such changes may indicate landslide activity upstream, so be prepared to move quickly.** Don't delay! Save yourself, not your belongings.
- **When you return to your home, walk carefully around the outside and check for loose power lines, gas leaks, and structural damage.** If you have any doubts about safety, have your residence inspected by a qualified building inspector or structural engineer before entering.
- **If you remain or are caught suddenly at home, move to a second story if possible, or move to an interior space in the strongest part of the building.**

OUTDOORS

Changes occur in your landscape:

- **Patters of storm-water drainage on slopes** (especially where runoff converges)
- **Land movement, small slides, flows.**
- **Progressively leaning trees.**

- Bulging ground appears at the base of a slope.
- Water breaks through the ground surface in new locations.
- Fences, retaining walls, utility poles, or trees tilt or move.
- Faint rumbling sounds that are noticed and increase in volume.
- The ground slopes downward in one direction and may shift under your feet.
- Unusual sounds, such as trees cracking or boulders knocking together.
- Collapsed pavement, mud, fallen rocks, etc. on roadside embankments.
- Move away from the slide's path as quickly as possible.
- Stay away from the slide area. There may be danger of additional slides.
- Watch for associated dangers such as broken electrical, water, gas, and sewage lines and damaged roadways and railways.
- If you cannot escape, curl into a tight ball and protect your head.

ERUPTING VOLCANO

It's important to evacuate the area as soon as possible after being told to do so. If you wait too long, you'll have to deal with ash fall, which will muck up your car's engine and make it more difficult to leave.

IF CAUGHT INDOORS

- Close all windows, doors, and fireplace or woodstove dampers.
- Turn off all fans and heating and air conditioning systems.
- Keep machinery and engines off.
- Drink only bottled water until the tap water is said to be clean. If you see ash in any water source, avoid drinking it.
- Remain indoors until you're told it's safe to come out.

OUTDOORS

- Get to high ground if you can't find shelter. Lava flows, laaggards, mudflows, and flooding are common in a major eruption. All of these can be deadly, and all of them tend to travel in valleys and low-lying areas. Climb to higher ground, and stay there until you can confirm that the danger has passed.

- **Avoid areas downwind and river valleys downstream of the volcano.**
- **If caught in a rock fall, roll into a ball to protect your head.**
- If caught **near a stream, be aware of mudflows. Move upslope**, especially if you hear the roar of a mudflow.
- Wear **long-sleeved shirts and long pants.**
- Use goggles to **protect your eyes.**
- **Do not stay low to the ground, as some of the most dangerous gases are heavier than air and accumulate near the ground.**
- **Use a dust mask or hold a damp cloth over your face** to help breathing.
- Stay out of the area defined as a restricted zone, **hot ash flow can reach you even if you cannot see the volcano during an eruption.**
- If you see the **water level of a stream begin to rise, quickly move to high ground.** If a mudflow is approaching or passes a bridge, stay away from the bridge.

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