# HOW TO SURVIVE ANY NATURAL CALAMITY

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# TIPS ON EARTHQUAKE EMERGENCY PREPARATION

In 1906, the residents of San Francisco, California, had an abrupt change of lifestyle. They learned that almost anything can happen without warning. An earthquake killed about 3,000 people and caused over \$400 million in property damages. In 1920, the Gansu earthquake in China took about 200,000 lives. Then in 1948, the region around Ashgabat in the Soviet Union suffered a powerful quake that claimed over two-thirds of that city's population (110,000 people died).

## **ABOUT EARTHQUAKES**

The most powerful earthquake ever recorded happened in 1960 in Chile. Registering 9.5 on the Moment magnitude scale, it created a tsunami that swept the entire Pacific Ocean. In 1972, 90% of the city of Managua, Nicaragua, was destroyed by a midnight earthquake that killed over 10,000 people. Then in 1985, the Great Mexican Earthquake struck, killing as many as 30,000 people, most of whom were never found. In 1989, San Francisco and surrounding areas experienced the "World Series Quake."

In 2003, the Bam Citadel, the largest adobe structure in the world and built before 500 B.C. was almost completely destroyed, together with 70% of the city of Bam and 70,000 residents.

Most of them happen along what is known as the circum-Pacific seismic belt or the "Pacific Ring of Fire" bounding the Pacific tectonic plate. With high-population cities like Mexico City, Tehran, and Tokyo growing in areas of high risk, it is possible that a future earthquake could take as many as 3 million lives.

It's hard to understand why people insist on living in earthquake-prone areas like San Francisco and the mountains of central and South America. But in fact, earthquakes are a common phenomenon, small ones happening somewhere in the world every day. Characterized by shaking and ruptures in the land, earthquakes also cause dangerous avalanches and landslides, fires like the terrible 1906 San Francisco experience, soil liquefaction where buildings literally sink into the earth, and massive tsunamis. Because the damage they do is

enduring, they also leave high risks for disease in their wake as people try to find potable water to drink and dry, safe places to sleep and live

People who live in high-probability earthquake zones must live each day as it comes, knowing that their fragile lives could be over in an instant. Knowing that tragedy can strike at any time, they prepare for it.

Technology specialist Jason lives near the Marina, the most high-risk area in his city. He accepts graciously the fact that living there is a risk, but he always stores basic supplies for that inevitable crisis. He keeps several gallons of fresh water, portable food packs, extra flashlights and batteries, and several thing-a-magics that would overwhelm the technologically-challenged.

## **EARTHQUAKE SAFETY TIPS**

- \*Duck. Stay off heavy objects that may fall. Find an open area or stand in a doorway.
- \*If you can't get out of the building, seek protection under a heavy table.
- \*If you're driving when the earthquake strikes, stay inside your car.
- \*If you're in a mall or store, move away from shelving and other movable objects.
- \*In theaters and stadiums, duck under your seat and wait until the mob has largely left the area.

Don't get caught up in the panic-filled crowds.

## ANOTHER WORD OF ADVICE

Being well-prepared, having a plan of action, is the best way to prepare to survive an earthquake. Lacking this comfortable knowledge, you are more likely to panic and make deadly mistakes.

Know where strong, stable structures are that may provide shelter. Avoid areas of poor construction or materials. Stay calm. Stay alert. Things change very quickly, and you should be ready to respond.

# EMERGENCY PREPAREDNESS FOR A HURRICANE

Nature's fury is mankind's nemesis. Natural disasters may be one of the only challenges planet Earth has left for us. We've learned to shape the land, modify crops, create new breeds of animals, and tame the wild beasts. But we haven't learned how to stop a natural disaster like a hurricane. There's little we can do when nature decides to release its fury on us. We can't stop it, but we can try to protect ourselves and our property.

The words "hurricane" and "typhoon" describe a meteorological event known as a tropical cyclone. These storm systems are characterized by a zone of low pressure at the center and large thunderstorms that produce high winds and floods of rain.

These systems form almost exclusively in the earth's tropical regions, spinning in a counterclockwise direction in the Northern Hemisphere and clockwise in the Southern Hemisphere.

Scientists have identified seven major basins where these tropical storm typically form. Four major basins are in the Pacific (North Central, Northeastern, Northwestern, and South/Southwestern), three are in the Indian Ocean (Northern, Southwestern, and Southeastern), and one is in the Atlantic (Northern). In 2004, the first documented tropical storm formed in the Southern Atlantic, striking Brazil.

Hurricane seasons vary geographically, appearing in a region's late summer, where the difference in temperatures between the air and sea are at their greatest. The most deadly hurricane on record struck the Ganges Delta in Bangladesh, killing from 300,000 to a million people. The Northern Indian basin has, since the early 1900s, been victim to the most and the most deadly hurricanes. Hurricanes are highly destructive of property. The recent Hurricane Katrina in the United States caused over \$80 billion in property damages.

Local governments tend to take most preventive measures to limit the loss of life and property. Most towns and cities create emergency plans, using sirens to alert citizens of coming danger.

Emergency broadcast systems are in place to keep people informed. And many communities store food, water, and medicines in case of power or water system breakdowns.

Most people who live on or near coastlines will experience a hurricane at least once during their lifetime. For some, it is a frequent occurrence, and they are prepared to board up windows and doors and evacuate almost out of habit. But many of us need to know what to do in the event of a hurricane.

## WHAT CAN I EXPECT IF A HURRICANE IS NEAR MY AREA?

- \*Luckily, hurricanes are easier to spot and prepare for than other natural disasters. With the advent of modern satellites, scientists are able to observe cloud formations and movement and reliably predict the direction and timing of the storm.
- \*As the hurricane nears landfall and it is spotted on radar, meteorologists will let the public know it's coming. At this early stage, many things could change. The storm can change in intensity and direction fairly quickly, so the local weather service can keep tabs and inform the community as the storm moves. During this period, local governments and emergency services begin to activate emergency plans and procedures.
- \*When the know the storm is coming their way, homeowners should begin to board up windows and doors and secure outdoor lawn furniture and equipment. As the storm nears, you and your family should evacuate the area. No sense taking needless chances.
- \*If you can't leave the storm, you should have stocked up on emergency supplies like plenty of fresh water, canned foods, candles and batteries, a battery-operated radio, and fuel for the generator. Water shortages can become life-threatening after a hurricane strikes, so it's a good idea to fill up every container you have including your bathtub with safe drinking water.
- \*The single most important item you will need during and after a major hurricane is a medical kit containing bandages, medical tape, antibiotics, and scissors. This may save your life by preventing serious infections if you or your family are injured.
- \*Long before the storm ever forms, you and your family should work out an emergency plan.

  Decide where to meet if people aren't home. Store essential supplies that can be used or easily moved to the car. Decide in advance where you will take shelter, and who will be responsible for

helping family members unable to care for themselves. Establish clear roles and responsibilities for shutting up the house and securing outdoor items. The better prepared your family is, the less likely they are to be overwhelmed by the hurricane, and the more likely you will all survive with minimal injury or property damage.

### WHAT WILL HAPPEN DURING A HURRICANE?

- \*When it hits land, the hurricane can bring winds over 100 miles per hour that can pick up and throw objects around as if they were toys. Cars, roofs, large pieces of metal or wood, and other flying debris can smash into homes. There is little one can do in this situation, but finding the safest shelter is the best bet. You may not be able to prevent serious damage to your home, but you can protect your life.
- \*Should the incoming hurricane grow a category 4 or 5, you will be advised to seek evacuate or, at the least, seek higher ground. Avoid trying to sit it out in your basement, as you might be trapped in a flood situation.
- \*If you can or must evacuate your community, travel light. Take only those items that you will need over a 24-48 hour period. A change of clothes, drinking water, and food should be included in your evacuation gear.
- \*As you drive to the nearest mass transportation outlet or in your own automobile, drive slowly and carefully. High winds and whipping rains will make it difficult to see, and accidents become very likely. Do NOT panic. This could also cause needless accidents and spread fearful behavior to other people in the same situation.
- \*The hurricane will pass in a few hours, and you will mostly likely be allowed to return to your home. Don't worry: the terrible flooding that kept people from returning to New Orleans after Hurricane Katrina was not the norm. Levees broke down, creating an abnormal situation.

## WHAT ABOUT AFTER THE HURRICANE?

- \*After a hurricane has happened, review your family's actions to see if your plan was reasonable and effective. Hurricanes are a fact of life in coastal areas, and you can benefit from your experience by preparing a better plan for the next time.
- \*Communities can only decide AFTER the hurricane whether their emergency plan and procedures were adequate. One good indicator is low loss of life or injuries being reported. The level of property damage will also be a sign of how effective emergency procedures were.
- \*State, city, and local governments who go through a hurricane should take stock after the event to do what they can to improve their plan and procedures. Citizens should ask government representatives about the results of their performance reviews and insist on necessary improvements.

Emergency preparedness for hurricanes is everyone's business and everyone's responsibilities. While governments are preparing to protect citizens' lives and property, individuals and families must plan their own solutions for personal health and safety and for protecting private property.

## **EMERGENCY PREPAREDNESS FOR A HURRICANE**

There is nothing anyone can do when nature decides to leash out its fury. There is no way to stop it so people should brace for the worse and seek shelter.

In order to minimize the loss of life, most towns and cities have created emergency plans. Sirens are placed in strategic locations to announce a major evacuation; the emergency broadcast system is in place in the event that power and electricity has been cut off as well as stockpiles of food, water and medicine.

Those who live in the coastal communities will usually be battered by hurricanes. This happens between the months of June until November in the Atlantic and from May to November in the northern Pacific Ocean.

When this is first spotted on radar, the forecaster will already inform the public about it. There is no need yet to panic here since the weather conditions may change in the next few hours but if there are no improvements, it is time to activate emergency procedures.

The hurricane may pack winds exceeding more than a 100 miles per hour that can make cars, pieces of metal or wood cause severe damage to the home. Households can board up the windows and doors of the house with hurricane shutters and plywood.

People will rush to the supermarket to stock up on food, water and other essentials. These include candles, batteries for the radio and the flashlight as well as fuel for the generator. All of these things are necessary especially water to prevent dehydration so every possible container must be used including the bathtub.

The most important which must never be forgotten is a medical kit. This should have bandages and some antibiotics to be able to treat anyone who is ill or injured until the person can be brought out to a medical facility for better treatment.

Should the incoming hurricane be classified as a category 4 or 5, residents are advised to evacuate and seek higher ground. It will be a good idea to travel light so only a few pieces of clothing, food and water must be brought into the vehicle.

The citizens are also advised to drive slowly and avoid panicking since this could cause accidents on the road. The hurricane will pass within a few hours. This is the only time that people will be able to go out or return to see how much damage was done.

It is only after assessing the damage that towns and cities can say whether the emergency preparedness procedures that were sent in place were effective or not. One indication that it works is if no casualties are reported. This is because a house or even a building can be repaired but the life of an individual can never be replaced.

The people who live in the household can rehearse the emergency preparedness plan to see if some improvements need to be made. This is because time is off the essence in order to be safe in this type of crisis.

Emergency preparedness is key to ensure the survival of everyone present. People who live through this annually know what to do but those who are moving into the community should learn fast to be able to survive the onslaught of the hurricane.

# PREPARE FOR A FLOOD THE BEST WAY YOU COULD

Did you know that floods are the most common natural disaster in America? The Red Cross reports that, every year, floods take more than 100 lives and cause more than \$4 billion in damages.

Here are some tips everyone should know to prepare for that inevitable flood:

#### \* Anticipate the Expected

You should know what impacts a flood could have on your home and property. The flow of water is easy to predict, and local terrain is a known factor. Try to estimate the damages if a tree was ripped from the ground and into your house or if debris should slide down the hill into your yard.

#### \* Ask Questions

Local planning agencies have very good information about the location of flood plains and water flows throughout the community. Be sure to find out where your property is located relative to flood areas, and find out if there is a history of flooding where you live.

#### \* Educate Yourself

Know the signs of imminent flooding and learn what type of alerts your community uses to warn citizens of impending floods.

#### \* Get with the Plan

It's critical that you know what your community plans do to in case evacuation becomes necessary. Know how they will provide transportation and local emergency travel routes. Find out if there is a step-by-step plan you can follow to best cooperate with the community's effort.

#### \* Insure your Property

Especially for people in flood-prone areas, normal home insurance will probably not cover flooding. But finding and having individual private flood insurance has many benefits:

- it covers specific losses
- it's usually relatively inexpensive
- it covers you even when your area is not declared a formal "disaster area"
- you may not have to repay property or reconstruction loans
- you know you will be paid because the National Flood Insurance Program backs all approved policies
- you may be able to get a partial payment very quickly after the event to begin repairs

#### \* Protect Important Documents

Make sure your passports, birth certificates, insurance policies, deeds, stock certificates, and other important documents are in a secure, waterproof location and container. Also be sure it's in a place where you can get to it easily.

#### \* Consider a Home Reconfiguration

If your fireplace, furnace, electric panel, or water heater is now in your basement or ground floor, consider having them moved to your attic. While this may be costly, it will save you in the long run, especially if you live in flood-prone area.

You should also find out about local building codes and requirements to find out whether you can build retaining walls and barriers to protect your home.

### \* Plug It Up

Check trap sewers in your house with check valves to be sure flood water can't leak into your house from the community's sewer system. During flood emergencies, you may want to use stoppers or corks to plug your tubs and sinks as well.

### \* Protect by Waterproofing

Be sure the walls of your basement and lower floors are watertight. Use waterproof compounds to seal cracks so that water can't get in.

### \* Keep Necessities at Hand

Be sure you have a flood kit by assuring there are a battery-operated radio and other supplies readily available. Set aside some fresh drinking water, canned goods, extra clothing, and blankets in a dry area that won't be flooded. Most important, keep a first aid kit updated and well-supplied.

Careful preparation is the best way to prevent damage and injury from floods. Especially if you live in at low altitudes or in coastal areas, you are likely to have this experience at least once in your life. You'll be much happier if you know what to do and take the proper precautions before a flood washes through your life.

# PREPARE FOR THE WORST HURRICANE IN THE BEST WAY POSSIBLE

USA Today.com reports that, over one century, the United States is likely to be struck by about 280 hurricanes, 81 of those being major storms with winds over 111 miles per hour. On average, one major hurricane lands somewhere on the US coast every year.

Hurricanes are powerful storms, bringing high winds and rain. A category 3 hurricane, considered "extensive" on the Saffir-Simpson scale, can have winds from 111-130 miles per hour and storm surges from 9 to 12 feet. A category 5 hurricane, the "extreme" variety, can contain winds over 155 miles an hour and storm surges over 18 feet.

These tropical cyclones (the term describing both hurricanes and typhoons) are extremely dangerous. During the United States' hurricane season, from June through November, individuals and families who live in coastal areas should be prepared for their onslaught.

There are a few things you can do to protect your family and your property for the threats presented by a hurricane coming your way:

#### \* Stav Aware

Every hurricane has different and unpredictable characteristics. The best bet is to be prepared for the worst, category 5, hurricane.

#### \* Have a Plan and Checklist

While your family plans for their response to a hurricane, take an inventory. Make a list of items outdoors that you will need to bring into the house or other shelter to prepare for a storm. This may be your lawn furniture, gardening equipment and tools, or large toys.

#### \* Give your Lawn a Manicure

Maintaining a healthy yard, including trees and shrubs, will keep it strong to withstand high winds. Keeping trees and plants trimmed and neat will also prevent the weakest branches from being snapped off to land in your bedroom!

#### \* Stay High and Dry

Check your gutters and drains frequently, and be sure they are clear of debris. This will reduce potential flooding in yard and home. Why add through negligence what Mother Nature will bring your way?

#### \* Invest in Hurricane Shutters

Installing permanent shutters for windows and doors is much safer, and more attractive, than relying on plywood or tape over glass. If the storm is predicted to be a category 4 or 5 hurricane, you may want to add plywood over the outside to reinforce indoor shutters.

#### \* Have an Escape Route

Be prepared to evacuate your home should it become necessary. Know where to find emergency information over the radio or through emergency agencies like the Red Cross. Find out where the official emergency travel routes are in your community, and identify nearby shelters.

### \* Prepare to Camp Out

Whether you're on the road or in a shelter, you'll want to have sleeping bags or blankets and a change of clothes. It's a good idea to bring your own fresh drinking water as well.

#### \* Consider Spot and Fluffy

Decide in advance what you'll do to protect and care for your pets. After the experience of Katrina, agencies are more aware that pet owners do not want to abandon their pets. Have a supply of food and water set aside that you can either leave at home for the pet or bring with you.

### \* Set up a Supply Cache

To help you respond quickly, set up supplies that may be needed during the storm, whether you stay at home or evacuate. Include clean water, flashlights, batteries, a transistor radio, food, a can opener, blankets, extra clothing, and the all-important first aid kid.

#### \* Unplug

Unplug appliances and equipment to reduce energy use and fire hazards. You don't know what kind of damages your house will suffer, and you don't want to find a pile of ashes when you return. If you leave your refrigerator plugged in, set it to the highest setting.

#### \* Consider some Reconstruction

If you are in an area that has frequent storms and flooding, you might want to look at elevating your home. If you can't do that, you might develop alternatives for getting furniture off the bottom floors.

Preparing for hurricanes is a fact of life for many Americans that live on our coasts. If you haven't done so in the past, now is a good time to sit down and make a plan to protect you, your family, and your property from the extensive damage a hurricane can impose.

## VITAL STEPS IN PREPARATION FOR AN INDUSTRIAL EMERGENCY

Most large corporations recognize the benefits to emergency preparedness to protect their people and property in the case of an industrial emergency. They don't want to lose important business by allowing interruptions in production and operations due to an industrial emergency.

Effective emergency preparedness planning helps them identify potential hazards and conditions that might not have been recognized in the absence of planning and preparation. Industrial emergencies are not only costly. They can be deadly.

A good emergency preparedness procedure will assure vulnerabilities are exposed and addressed. Just a few examples of the many possible vulnerabilities that could create or exacerbate an industrial emergency include inadequate maintenance of or outdated equipment, insufficient training for personnel, inappropriate supplies, or poor facility design.

By developing a comprehensive emergency preparedness plan, corporations can correct potential problems before an industrial emergency occurs. Such planning can prevent losses of life and property and can protect the corporation from financial collapse.

Companies that follow these basic steps will be more likely to prevent or survive an industrial emergency.

### THE EMERGENCY PREPAREDNESS TEAM

The company should set up a solid planning team that includes both managers and staff with the appropriate set of skills and experience to conduct the emergency preparedness process.

The team should establish a schedule, assign roles and responsibilities, and encourage wide participation in the process to assure buy-in and participation at all levels in the event of an industrial emergency.

## THE EMERGENCY PREPAREDNESS ASSESSMENT

The first step in constructing an effective emergency preparedness plan is to assess current conditions and capabilities, including documenting the organization's current preparedness assets (for example, describe what the company has available today to address power failures and how it handles them when they occur). A complete inventory of equipment, supplies, and personnel would be included, as would a review of the facilities involved.

Emergency preparedness for an industrial emergency should also involve communications with local emergency managers in the community, such as floodplain oversight agencies, fire and police departments, and environmental agencies. This makes it easier to assess the possible impact of industrial emergencies on the community and to arrange for immediate and cooperative responses on the part of emergency responders.

Having gathered exhaustive information about the facility, staff, and established procedures, the team will then develop a step-by-step outline to describe what must be done to respond to industrial accidents and prevent further damage. These step-by-step outlines should be developed for any conceivable problem (such as flooding, fires and explosions, natural disasters, structural damages, etc.).

The team must ensure that the emergency preparedness plan include back-ups for major systems that must continue to operate in spite of an industrial emergency. It is important to assure that alternate power sources are available and that there are alternatives for staffing that will protect health and safety while operations continue.

The plan should include steps to protect and retain important company records, and the team should identify any and all training necessary to prepare staff to respond.

Finally, the plan should address emergency shut-down and re-start procedures should it become necessary to suspend operations during the industrial emergency.

The team will then present their recommendations to management and most likely to staff as well. After a process of review and revision, the final emergency preparedness plan will be adopted and put in place.

## **EMERGENCY PREPAREDNESS PLAN IMPLEMENTATION**

After the plan is approved and adopted, it must be put in operation. Facility alterations, equipment configurations and replacements, emergency supply procurements, and a staff training program will be undertaken.

Implementation should include establishing an emergency operations center and a way to ensure communications with state and local agencies that may be involved.

When these efforts are complete, the company should be in a position to address any potential industrial emergency. If an industrial emergency does occur, the team will be responsible for assessing response effectiveness after the fact and then making necessary modifications in the existing plan. The company should not hesitate to modify current operating procedures to include health and safety measures that become part of the daily routine.

After an industrial emergency, the corporation will have to assess damages and undertake needed repairs and reparations. Depending on the nature of the industry, community involvement and participation may be necessary, and the company should be prepared to work with community leaders and affected citizens who may have been impacted by the emergency. If the emergency preparedness plan has been successful, the company's prompt, capable response should reassure the community that, despite the potential for industrial emergencies, the industry is an asset to the community.

# SAFETY EMERGENCY PREPARATION TIPS WHEN THERE IS A TORNADO

If you've ever seen a tornado, you know what a powerful and terrifying thing this unpredictable natural disaster can be. And if you're a citizen of "Tornado Alley," you'll want to know what to do if a tornado should make its way to your door!

Every year from March to May, Midwest and southern states are plagued by tornadoes. Northern states' risks are slightly later, from late spring to early summer. Tornadoes are unpredictable, sudden, violent columns of rotating air that pick up dirt, debris, and even very large items and toss them like pick-up sticks. The winds of most tornadoes reach speeds of over 100 miles an hour, and some have been clocked at over 300 miles per hour.

What makes a tornado truly dangerous is its unpredictability. It can descend from the clouds without warning and disappear just as quickly. And tornadoes don't follow a predictable path. They can make 90-degree turns without warning. And they are harder to spot and track from satellites.

You can only be sure there's a tornado nearby by seeing it. Or you may hear the sound of a train roaring where no track have been laid. There's not much you can do to protect your home and property from tornado damage.

If it wants your house, it will get your house. But there are certain precautions you can take to protect yourself from the ravages of the deadly tornado.

## HOW CAN I TELL IF A TORNADO IS LIKELY?

- \*A tornado looks like a funnel. Some are long and spindly, and some are thick and wide. The long thin tornado is more unpredictable, acting like a whip across the landscape. But a thick, wide tornado may pack higher winds.
- \*Tornadoes are associated with severe thunderstorms (called supercells), particularly where air temperatures are significantly less than ground temperatures.

- \*Tornadoes may occur right before or after a cold or warm front has passed through the area.
- \*Tornadoes are frequently present when there is heavy rain, hail, and powerful winds during a thunderstorm.
- \*Residents of Tornado Alley report a subtle greenish-tint to clouds that form tornado funnels.

## HOW WILL I KNOW WHEN THE TORNADO WILL HIT MY HOUSE?

- \*Winds and rain may decrease suddenly immediately before a tornado strikes.
- \*Tornadoes are more likely at the leading edge and trailing end of a severe thunderstorm.
- \*There is usually a lot of dust and debris in the air around a tornado, even when you can't see the funnel. Close-up, the tornado may resemble a violent low-lying cloud.
- \*Because the air is rotating at high speeds, you may see debris rotating in a circular whirling path.
- \*Immediately before a tornado hits, you can hear what sounds like an on-coming freight train.

  That is the sound of the high-speed wind.

## WHAT CANIDO TO PROTECT MYSELF?

- \*If you see a tornado, or if the sky becomes suddenly darer and takes on a violet to greenish glow, take cover. While you may not be hit directly by the tornado, you can be severely injured by flying debris.
- \*Tornadoes tend to follow higher ground. If you are outdoors, find a ditch or trench if you can't find cover. Many people find shelter on the highway at underpasses. Do not stay in your car, as it will offer little protection. Lie flat, and cover your head.

\*Storm cellars or basements are the safest place to go during a tornado. But if you don't have one in your house, try to find a central location with few windows or glass doors. If the glass breaks, you could be hurt or killed by severe lacerations.

\*If you are in an apartment or tall building, seek shelter near the center of the building.

Bathrooms and kitchens seem to offer more protection because the pipes make the walls stronger. Sometimes whole structures disappear, but the bathroom or an interior closet remains.

When the storm has passed, it's time to assess the damage and begin to recover. You may find pieces of furniture or personal items miles away, undamaged. You may find a fragile straw implanted through a tree or phone pole. Tornadoes have almost mystical powers and do some very strange things.

Community clean-up and support are tremendously important after a tornado. Coming with little warning and wiping out whole lifetimes leaves victims drained and feeling powerless. If you are a victim, seek support from neighbors and family. If you are, offer your support to those who have suffered.

## TSUNAMI: WHAT TO DO AND HOW TO SURVIVE

Until December 2004, most of us thought of tsunamis as the makings of a good disaster movie, if we knew what "tsunami" meant at all. But with the awful devastation of 2004, we realized how much damage a tsunami can do.

### WHAT A TSUNAMI IS

Tsunamis are not large tropical storms caused by high winds. They are the result of undersea geological events like volcanoes, landslides, or earthquakes that occur with massive tectonic displacements. Earthquakes that reach 6.5 or above (Richter scale) can produce devastating waves that move at up to 300 miles per hour, reach heights of 100 feet, and last from several minutes to several hours from first wave to last surge.

In the open sea, the tsunami may not be noticeable, but when they enter shallower waters, the begins to "pile up" on itself, creating a massive wave that can destroy tall buildings and even travel inland for miles with great power.

## WHERE TSUNAMIS STRIKE

Coastal areas in the Pacific Ocean basin are the most frequent targets of tsunamis, reflecting the greater vulnerability related to the famous "Ring of Fire" where tectonic plates meet to form a great circle on the sea floor. Japan has experienced many tsunamis. In fact, tsunami is a Japanese word. They've also hit Alaska and Hawaii in the Pacific Basin and Puerto Rico and the Virgin Islands in the Atlantic basin.

The Indian Ocean area has experienced many tsunamis as well, the 2004 tsunami taking more than 250,000 lives and destroying billions of dollars in property.

## PREPARING FOR A TSUNAMI EMERGENCY

If you are in the water and feel a strong earthquake, leave the water immediately, getting as far from the beach as you can. Try to go to high ground, or go inland as far as possible if the ground near you is flat.

If you can see the incoming wave, you can't escape it. You simply don't have time. The best thing to do in that case is to get as high as you can as quickly as you can.

If you sense a strong earthquake and you are not at the beach, tune your radio to a local station that broadcasts during emergencies. They will notify the public in case a tsunami watch or warning has been issued, and they will let you know where emergency relief centers are.

At this point, you should know where your family members are. Make sure everyone knows about the alert. You should have an agreed-upon meeting place in case you're not all in the same place when the emergency is announced. Your meeting location should be as far from the shore as possible but not so far that people can't get to it in time.

Be sure to prepare for family members with special needs. If your family includes elderly, ill, or small children, be prepared to have help for them or try to evacuate them early. You may also want to prepare to evacuate your pets as well, bringing emergency food and water for them.

You should have prepared emergency supplies in your home. Bring them with you when you evacuate. At least take fresh water, some food, and extra clothing. Most important, have a first aid kit in case of injuries.

If you have time, you might try to secure your house, but not at the risk of your own life. There is little you can do to protect your possessions from an incoming tsunami, so focus on saving lives first.

## TSUNAMI WATCH OR TSUNAMI WARNING

The two terms have important different meanings. When authorities issue a tsunami watch, it means that a tsunami is possible, but no one has reported seeing one or a sighting hasn't been verified yet. A watch may include estimates for when and where a tsunami may strike.

When they issue a tsunami warning, it means that a tsunami has been reported and confirmed. By the time they issue the warning, the tsunami could be close. The warning will also let you know where to expect it to strike and when.

## **DURING THE WAVE**

If you are unfortunate enough to find yourself at the mercy of an incoming tsunami, climb onto a rooftop or the highest point you can reach. The more stable the building, the safer the support will be. But get as high as you can no matter what. Hold on as tight as you can to any stable and heavy object available. If you must, climb a tree.

If you've already been overtaken by the water, grab something floating that's large enough to support you and hold onto it until you can find stable ground or get help. Grab anything that seems firm and try to get out of the water. The current will be strong, and you could be hurt by debris in the water. If you can get any part of your body out of the water, do so.

You have to accept that tsunamis, like most natural disasters, are uncontrollable. You will have the earthquake warning to give you time to escape.

Keep your head. Remain calm. The better prepared you are, the better your chances of surviving.

## EMERGENCY PREPARATION TIPS FOR TYPHOONS

Almost all countries with coastlines are plagued by typhoons. This tropical cyclone is the same type of storm as a hurricane (in the Atlantic) or cyclone (in the Indian Ocean). Typhoons are massive accumulations of wind and rain rotating around a central low-pressure zone that develop over large bodies of water, more likely oceans. A tropical storm becomes a typhoon when its winds reach 74 miles per hour.

Typhoons form in the Western North Pacific and tend to affect China, Japan, and the Philippines. At the extreme, typhoon wind speeds can reach up to 150 miles an hour, and gusts can reach 300 mph. Along with these strong winds come torrential rains and a devastating storm surge that can reach 20 feet above normal water levels. These tropical storms tend to dissipate when they can no longer get their energy from the warm water. When it moves over land, its energy source quickly disappears, and the storm begins to lose its power.

Unlike tornadoes, typhoons and hurricanes do not form suddenly. It takes several days before a minor storm becomes a major typhoon. Normally starting as a normal thunderstorm, the right conditions can build them into intense weather disturbances. Thanks to modern satellites and communication systems, it is easy to spot and track typhoons. Weather bureaus can, therefore, inform people well before a typhoon event that the danger is approaching.

Most countries subject to frequent tycoons have established safety procedures and plans to help people prepare and prevent injuries and property damage. By the time a typhoon is close, local authorities will already have issued warnings, anywhere from 24-48 hours before the predicted landfall. People in the area should follow these tips to stay safe:

\*Store enough fresh drinking water and food for several days. The typhoon's destructive power may make it impossible to return home right away or to get to groceries or markets. Further, the storm may destroy local water delivery systems.

- \*If you are caught outdoors during the storm, seek high ground and find some type of durable shelter.
- \*If your home is not strong enough to withstand powerful wind gusts and rapid flooding, seek cover at a designated evacuation center or shelter. Don't risk your life by staying in a poorly-constructed building.
- \*If you do stay home, turn off and unplug electric appliances and equipment to avoid possible electrical shorts and fires. Frequently, your local utility will cut off power to prevent additional emergencies.
- \*Make sure you have adequate protective rain gear to keep warm and dry in case you need to flee the area.
- \*If you are indoors during the storm, stay there. Going outside may expose you to fallen power lines or flying debris that is extremely dangerous.
- \*Make sure you have a battery-powered radio to monitor the situation through local news services whether the community's power is on or off.

Man hasn't learned how to prevent typhoons, but we can anticipate their direction and power soon enough to find safety and survive. Being well-prepared will spare you the emotional stress of panic and avoid making possibly deadly mistakes. Fear and panic are responsible for many lost lives, and that is one condition you can control.

## **TSUNAMIEMERGENCY PREPARATION**

In 2004, a powerful tsunami washed over coastal areas in Southeast Asia, extending all the way to Africa's west coast. The tsunami took more than 200,000 lives, and some people were never recovered or identified. Much of this loss might have been avoided had an effective emergency preparedness system been in place.

The 2004 tsunami may have been the most deadly in recorded history, but it was not the first - 25 of them were recorded in the 20th Century alone. And while many of them have happened in the South Pacific, tsunamis have been recorded all over the world, from Japan to Chile, from Italy to the United Kingdom. New Zealand's geologic record documents a tsunami 125,000 years ago, and written history documents these disasters as early as 1580 B.C. (following the Santorini volcano).

Until very recently, scientists have not been able to predict when and where a tsunami will strike, making emergency preparedness very difficult. Caused by earthquakes, volcanoes, and landslides on the sea floor, today we can make and educated guess about when they will happen after such an event.

Today, regions at high risk may use a tsunami warning system to warn people before the wave reaches coastal areas. Computer models are used to predict the time and location of impact Until now, the exact location where tsunamis will strike cannot yet be predicted. But once an underground earthquake occurs, an alert is sent to coastal communities that something could go in that direction. Emergency preparedness efforts are more likely to succeed when these alerts are timely.

The famous "Ring of Fire," where many volcanoes have occurred along the lines where tectonic plates meet in the Asian Pacific, was not adequately protected by an early warning system in 2004. This was a valuable lesson for coastal areas around the world, and scientists are working hard to prepare for future events in that area.

Emergency preparedness for tsunamis begins with early warning systems that include four elements: information, advisory, watch, and warning. When the system detects an underground earthquake, Hawaii's Pacific Tsunami Warning Center releases the news to the effected communities. Because it is too early to predict the size, time, or location of the potential tsunami at this stage, a more general advisory will be delivered to likely targets. It may take hours from the seismic event to the actual tsunami.

Where evidence suggests that a tsunami is likely but hasn't been witnessed or verified, early warning systems issue a watch alerting populations to the likelihood. Emergency preparedness plans dictate that, at this time, people in coastal areas should be alert and watch the sea for signs, like a quick receding of ocean waters that a tsunami is on its way. A siren may be used to alert the people, anywhere from three hours before the event is expected. If the water does begin to recede, a mandatory evacuation will begin.

Once a tsunami has been seen and verified, they issue a warning with more detailed information about where and when the giant wave will it. A siren will again alert people. Once a warning is issued, people should already be moving out of the danger zone. They can go to high ground or try to go farther inland, taking fresh water, food, and extra clothing with them as they go. Part of the emergency preparedness effort includes announcements that will be made over the radio telling them when it's safe to return.

The early warning system continues to work during and after the event. People will remain in the area to monitor the situation and to cancel the warning if the tsunami does not materialize.

World leaders now recognize how important emergency preparedness is to potential tsunami victims. They encourage community leaders to develop plans and conduct exercises so that they know how long it will take to evacuate vulnerable areas. They should also have current estimates on the number of people in the area so that they'll know if people are missing after the crisis has passed.

## DON'T BE BLOWN OFF BY A TYPHOON

Wherever you live, you will probably experience a typhoon. Typhoons, also called tropical cyclones, occur near the equator in the Eastern Pacific and are equivalent to hurricanes and cyclones. Like all great storms, they can destroy property and kill people.

A powerful reminder of Nature's strength, typhoons are characterized by high-speed winds and driving rain rotating around a low-pressure center. Through the modern miracles of weather satellites, meteorologists can observe, track, and predict their strength and movement.

Pacific typhoons have been recorded throughout the year, but they seem to peak from August to October. In the Pacific Northwest, the range is greater - from May to November. Normally, their paths follow one of three directions: a straight westward path, curving paths impacting Japan and China, and northward paths that seem to only affect small islands.

The causes of typhoons are not well-understood, but there are some factors that seem to be common to them. One is warmer water temperature, particularly with rapid cooling in the atmosphere. High humidity is present. They usually seem to form more that 500 kilometers (310 miles) from the equator.

If a the weather service broadcasts a warning that typhoon is nearing your area, there are measures you can take to avoid loss of life and property. Here is a quick run-down of the things you can do before it arrives:

- 1. Repair broken doors and windows, and make sure your exits are free of obstructions in case you need to get out (or in) quickly. Tape over big glass windows that could be shattered by flying debris. If you have time, cover windows with plywood or storm shutters.
- 2. If your area is flood-prone, plan to move to an evacuation center or to higher ground before the water level reaches one meter (or a little over 3 feet). Try to park your car on high ground. Secure your garbage indoors where it won't be carried away by the flood and create more health problems.

- 3. Store enough food and fresh drinking water for a few days. You may well lose power, so stock up on candles, batteries, rain gear, and thick blankets.
- 4. Secure items like furniture in your yard or on your balcony. Better yet, bring them indoors. Also remove anything from your roof that might be easily blown away.
- 5. Clear out gutters and drains around your house to avoid adding to the flood damage problem the typhoon will visit on your area.
- 6. Carry a battery-powered radio with you to listen to the news about the typhoon. Know what's happening in your area. Stay alert for announcements for emergency evacuations, and be sure you know what the evacuation routes are, where shelters are located, and how to get help if you need it.
- 7. Even when the typhoon seems to be over, and the sky is clear, do not leave your home or shelter until the authorities tell you it is safe. You may be in the eye of the storm, where all is peaceful and quiet. But this is deceptive: you still have to go through the other side of the typhoon.
- 8. After the typhoon, check your home and property for potentially dangerous damages. Clear large items from doorways and paths. Be sure to check electrical appliances and outlets for possible shorts that could start fires. Make sure your gas service is being delivered properly for the same reason. Inspect trees for damaged branches that might still fall on your house. And have your car inspected for water damages that may not be apparent until you want to go somewhere!

# WHAT DO YOU DO WHEN A VOLCANO ERUPTS TOMORROW?

Among the most powerful and destructive natural disasters, volcanic eruptions are catastrophic. They can build and destroy mountains. They can wipe out many villages and towns in a matter of moments. They can even cause global changes in the Earth's climate.

In 1883, the famous Krakatoa eruption send more than 25 cubic kilometers of ash, rock, and pumice into the environment. Heard as far away as 2000 miles, it made the loudest sound ever reported. After it was over, over 165 towns and over 36,000 people were destroyed. In the year after the eruption, the world's temperature dropped over one degree Celsius, and normal temperatures did not return for another six years.

Scientists, who study volcanoes are called volcanologists, are learning how to predict the likelihood and severity of eruptions. But they're a long way from being able to tell us when a volcano will blow its top. While there may be some general signs, like tremors or unusual animal behavior, it is important to understand some basic about the event so that you can prepare to response in an emergency to a volcanic event.

1. Become familiar with the terms scientists use to describe volcanoes and volcanic eruptions. That way, you can better understand news reports and information.

Volcanic ash is small dust particles and pieces of rock that are erupted into the air with volcanic gases. These ashes are highly acidic and can decompose fabrics, corrode metals, clog machinery, and block water flows. Volcanic ash kills animals and plants. On roofs, it can build up to weights that will cause the building to collapse. Mixed with water, volcanic ask is like cement. It hardens quickly, making breathing deadly.

Pyroclastic flows are streams of molten volcanic rock, called lava. The speed at which they move depends on the terrain and the composition of the lava. Some pyroclastic flows move very quickly, engulfing everything in their path.

2. Learn the most likely places in your area for pyroclastic flows. Since they are semi-liquid, they'll probably follow low-lying areas like riverbeds and floodplains.

- 3. If a nearby volcano shows signs of erupting, stay away from it. The eruption could happen in the blink of an eye. If you're too close, you won't be able to escape.
- 4. If the government asks you to evacuate, do it immediately. Remember Pompeii. Even if your community isn't flooded by pyroclastic flows, it could be buried in ash. The only way to protect yourself is to get out of the area. While you might find some protection in buildings, they can also become death traps.
- 5. Avoid crossing bridges that could be swept away in a fast-moving mudflow. If you must use a bridge to escape, try to find out what's happening upstream so that you aren't caught unawares in an oncoming river of mud.
- 6. If the volcano is releasing volcanic ask, stay inside and leave your doors and windows closed. Wear a mask to protect your lungs.
- 7. When it is safe to do so, immediately remove volcanic ask from your rain gutters and roof. Volcanic ask is very heavy and can collapse buildings. As noted before, it can also become like concrete if it gets wet and permanently clog your pipes, drains, and gutters. diseases, especially to infants and old people with lung problems.
- 8. If you must drive, avoid places that already have a thick layer of ash or dust. And drive slowly to avoid getting caught in mudslides or pyroclastic flows.
- 9. Be prepared to provide your own necessities to carry you through several days of primitive living. Take spare batteries, heavy-duty dust masks, protective clothing, fresh drinking water, and enough food to keep your energy level up.

If you are in an area near an active volcano, you owe it to yourself to understand how volcanoes behave and the threats they present. Know what to do to preserve your life and protect your property. And if there are any signs of impending eruption, listen to the radio for updates and important life-saving information.

Volcanoes are one of nature's most powerful forces, and much of their damage can't be prevented. Even after the eruption has passed, the event isn't over. There'll be massive cleanup, slow reconstruction, and lingering environmental and health problems. However, the better informed and prepared you are for such a terrible event, the more likely you will be to survive and remain healthy.

# DO YOU STILL DREAM OF SAVING LIVES?

We have all lived and cherished dreams when we were young. Each of us as children have ourselves or at least heard our children proclaim that he/she wanted to be a cop or a fire fighter. Someone who is very close to living this dream is the Emergency Medical Technician (EMT). All of us naturally and normally have a strong urge to save other's life, but sadly this loses focus more and more as we grow up. And once we lose sight of these passions, we tend to forget them forever for the fear that people may label them as pointless or unachievable. Search yourself for such dreams and give it a new lease of life. Analyze them and try to devise ways to make them a reality. Calling up a person and wishing him hello might be enough to save his life if done at the right time. In some occasions, it is more complex and may involve injecting intravenous fluids or helping people who have difficulty in breathing with an airway device. The second category might seem too complex for a layman, but a certified EMT will get to posses these skills through thorough training.

A novice level EMT certificate is one of the requirements for applying for the post of a fire fighter or police officer. This level includes a good understanding of basic first aid and also examining a person and being able to decide the course of action to be taken. The novice EMT is also called "first-responder" EMT because the people who normally take up this certification course are cops or fire fighters who are most often the first people on the scene of the accident. EMT-Basic or EMT-1 is the first level of the official EMT certification. The skills taught at this level include giving first aid, delivering a baby in emergency, treating fractures, handling pathogens that spread through blood, and other skills that may be required by the first responder. When a person gets certified at the Basic level, he will be registered with the National Registry of Emergency Medical Technicians(NMERT). He/she is then ready to take up the next level of courses. EMT-Intermediate or courses 2 and 3 are more tedious to finish than the basic level. They take up more hours to teach and learn. But a person who has finished these two courses will have their skill set greatly increased. A person who manages to successfully complete this level, will be certified as EMT-Intermediate and will be registered at this level at the NMERT. You are allowed to take up Intermediate courses only when you have registered yourself with the NMERT after the Basic course. Note that your responsibilities will be

on the rise too. You will be taught to approach each crisis in the most effective way. When you take up higher levels, your pay scale will go up to taking into account your knowledge and skills.

The highest level of certification is the 4th level or EMT-Paramedic certification level. To achieve this certification, you must have put in 2000 hours in the classroom and over a hundred hours at the emergency ward at a hospital. You will then have to register yourself with the NMERT. On successful completion, you can continue as an assistant to a physician or even higher. When you get registered, your chances of getting a job increases rapidly and also you will be contacted directly in case of any crisis. When you are just a Basic level EMT, you may not be saving lives, but you most certainly will be as you keep taking up higher level courses. They will be given a new lease of life just because of your simple plan of educating yourself. else's.

# THE TRUTH ABOUT EMERGENCY SERVICES

The first thing that you need to keep in mind when you plan to become a worker in the emergency services is that, you must be selfless. Even though you chose this career without any special intention, it needs to be noted that at some point of time, you would have influenced other person's life. I was a technician in a medical emergency camp for about four years. The patients who called me have affected my life in a great manner, knowingly or unknowingly, even when I did not really expect them to. During the training period, you will realize how this profession becomes an integral part of life, and the other emotions and memories involved in the process.

It feels different when your pager rings when you are actually on duty with some other work. The training period actually makes you prepare yourself mentally to take every other call. You may have a clue about the nature of the call, but it might turn out to be completely contradictory to what you actually think. Sometimes, I have attended calls that were made look urgent in spite of the fact that they were not urgent. I have been there when some people breathed last. A worker in the emergency services would be the last face any man would want to see. I just hope that I will be able to comfort people who are going to die any moment, and one must realize and look forward to comforting people when they are facing problems. It is always necessary that any emergency worker must be full of confidence and his confidence must always have a positive effect on the patients that come up to him.

At times, an emergency worker might be the first person who gets to see a kid that is new to the world. I still remember helping during the delivery of a child. This call was not any different from others, but I always wondered as to what that kid would be like now, and what it would be doing. Sometimes, I even start wondering what the other person who came to earth with my help would be experiencing now. These are not subjects in any of the classes that are taken; it is just a thought that is buried deep inside me. Knowingly or unknowingly, I have become a part of a person's life. The passion in this job is another thing that will influence people. With the right confidence, one can even save a person with the bleakest of chances to survive.

Becoming a worker with the emergency service is not fun; it is sheer commitment that one must

Becoming a worker with the emergency service is not fun; it is sheer commitment that one must realize before getting their certificates. One needs to realize that he will be working during the

oddest of hours when others are asleep, just to help someone from dying. Sometimes, a patient leaves a mark in your life, and you might even be deeply touched by the way things have turned out. But, honestly, in majority of the instances, the patients who turn up at the hospital is dead, and no one knows what happens next. So, selflessness and Emergency Services are synonymous with each other.

### EMERGENCY MEDICAL SERVICES AND HOW IT BEGAN

People who are being taken to hospitals are normally given emergency medical care. This is given to them in response to some injury or illness or when a qualified person feels that they need medical care. Rescue squads, Ambulance squads or services are the names by which these people are commonly known. Whatever you choose to call them, the main reason they are out there is to provide immediate medical support or at least transport you to a place where this support is available and you can be treated like hospitals, clinics, emergency rooms or any place where a doctor will be available. Certain EMC units may also be able to find and rescue people who are stuck inside cars involved in accidents, those in water emergencies etc.

The Good Samaritan which is mention in the New Testament of the Bible is probably the earliest reference to emergency services. The ambulance squad was an initiative of the Knights of St. John way back in the middle ages. Queen Isabella of Spain is said to have had an ambulance service for injured troops in 1487. More countries started their own ambulance services taking note of the care shown to the Spanish troops by the queen. There were huge changes in the construction of the ambulance during the late 18th and 19th century. The horse drawn wagon was designed by Dominique Larrey so that services could be meted out faster to the troops and so that they would not die during battles. By 1793, Napoleon started using these ambulances for his army.

The requirements of the ambulance too kept changing as its needs changed. In the 19th century, more advanced ambulance styles were developed. In 1832, the Cholera Ambulance set up by the French, set up a yardstick for how soon a person could be given medical support. Finally in 1865, ambulance services started bringing patients to the hospital for treatment. This type of ambulance was pioneered by Cincinnati General, a part of the city of Cincinnati in Ohio. New York's Bellevue hospital soon followed this strategy by designing an ambulance service which included morphine, splints, brandy, stomach pumps etc right inside the ambulance. This was the dawn of the new era of emergency medical services that we see today. These ambulances have a complete set of emergency tools and medicines to treat a patient during transportation itself.

The invention of the motorized engine led to converting all horse-driven ambulances to motor-powered ambulances. During the world wars, these ambulances came to the lime light and saved more lives than can be counted, revolutionizing ambulances. Nowadays, ambulances have a greater level of care than ever before with complete life support, and highest quality of care. It is not exaggeration to mention that ambulances are just the beginning of emergency medical services. Already, helicopters are being used for large operations and it is only natural to imagine that better services will come up in the near future. If not for the dreams that have transformed the emergency services industry into an unforeseen force, we would have all been still at a stage where we cannot dial for help and have the confidence that the emergency squad will provide their services in minutes.

### CIVIL WAR EMERGENCY PREPARATION GETTING READY FOR A DISASTER

Peace is fast becoming a scarce commodity in all parts of the world. If the threat of war is not from over the boarders it is from within – civil war is what every country fears more than international aggression. The risk of having to face a civil war is an omnipresent risk and people need to need to be educated vis-à-vis what they need to do in times of civil unrest.

There are many countries such as Africa that are no longer affected by a civil war, in fact living in aggression has become a part of their lives, never the less they are well versed with ways of defending themselves and finding food and nutrition for their families. In Africa alone civil war has displaced as many as 5 million families many of them are living in evacuation camps set up by the army and social service organizations like the Red Cross.

Civil war is no different than a conventional war fought between two countries; the only difference is that the army is fighting people within the country. Nevertheless civil war can be a very devastating experience especially for women and children who in most cases are not equipped to fend for themselves. Apart from food, shelter and clothing problems civil war brings with it atrocities in the form of human rights violations – from military as well as civilian forces.

Every family living in a country that is threatened by civil war needs to put in place a contingency plan in case there is any unrest. These people should never live in the hope that their government will provide for them in times of unrest. Government, at most times, will heap atrocities on the people in times of civil war – remember that the government is fighting civilians in their own country. So, civilians are the enemy!

Preparations for civil war should include survival courses where they are trained in the art of self defense as well as the use of fire arms and other weapon training. While training in the use of fire arms adolescents must also be made aware of the dangers of handling a dangerous weapon, not just the adults.

Knowledge of first aid is very important in times of war and so every civilian must be well

versed with the use of various first aid techniques. First aid kits must be prepared and kept ready to deal with open wounds as well as diseases such as diarrhea, malaria and other general contagious infectious diseases.

Families facing the threat of civil war need to prepare to be displaced in the hope of escaping violence. These people must prepare a displacement kit that would necessarily include all necessities such as covering, clothes and shoes. These times will mean living on the road for months without shelter. Your displacement kit will be of great help in these times. Include only the bare necessities in the kit to keep it light.

It is necessary to prepare for an emergency rather than hope it will not happen. So, if you are prepared you will have taken care of a few of your worries at least, and you will have improved your chances of surviving.

# CLIMATE CHANGE EMERGENCY PREPARATION WE SHOULD ACT NOW!

The world is constantly changing but not like in the past few hundred years. Technological advancements are forcing the environment to change in a way that is not at all desirable to human-kind. Though technology has made our lives comfortable to a great extent the same factors of comfort are contributing to making the world a difficult and uncomfortable place to live in.

The machines that cool or heat our homes and offices contribute to global warming that is causing disastrous changes to the climate and the environment as a whole. The climatic changes all around the globe is leading to environmental disasters in almost every country and this should be sounding alarm bells in every home of the world. However, we are still taking things easy hoping for the governments of the world to do something about putting a climate change emergency program in place.

People should learn from the devastating earthquakes, typhoons and tsunamis that are wrecking havoc around the world. The first point in an emergency program should be to educate the people as to the factors that lead to such environmental disasters and how to detect or predict the possible occurrence of one. Then the next step should include lessons on how to prepare for such contingencies.

Knowledge on how to act in times of environmental emergencies will help people improve their chances of surviving and coming out of such a situation with the least amount of damage.

Evidence is pointing to the fact that nature is going to hold man-kind responsible for the degradation of nature and the onslaught of natural disasters is inevitable. Mankind should be prepared to face these disasters if not do something to avert them – if it is not too late already. Greenhouse gases are not just government propaganda. It is a fierce reality and is the main contributing factor to global warming a phenomenon that is likely result in half the globe being submerged under the seas due to the melting of the ice caps at the poles of the globe.

It is believed that no matter what man does now there is no way of averting warming of the globe, it can only be delayed. What is of prime importance now is that man should understand the problems of climate change and how to react in such times. When climate change brings about a rise in the levels of the seas and oceans, forest fires and other disasters man must know the best measures to be taken.

It is important that the governments of every country should set up a contingency plan and a training program to educate the people as to how they should react in the event of an emergency brought on by climate changes. This will contribute to millions of people being in a better position to safe guard their lives and property and will lessen the impact of the environmental disaster.

With the present knowledge acquired by scientists around he world we now have a better chance of surviving –we also have a better choice.

### **HOME EMERGENCY - BETTER BE PREPARED!**

The best way to deal with an emergency situation is to be prepared t deal with it. No one can predict and emergency situation. However, we can sure be prepared FOR an emergency situation at any time. Following are some tips on how to prepare to deal with a contingency at home. If you follow the following tips and advice you will be better prepared to deal with any emergency situation in your home.

Starting with the lifeline of every person – Water. Remember to store at least a gallon of water for each person that resides in the house. A scarcity of water can cause undue hardships to everyone. This is a relatively easy emergency to deal with as overhead tanks are easy to come by and install. The tanks should be cleaned at regular intervals such as once every month or two and someone should ensure that the tanks are filed every day. Water scarcity can strike at any time of the year. In addition you should have water purifier tablets available to make the water worth drinking.

#### Food:

Frozen foods are an easy commodity to store in the refrigerator. Keep consuming the frozen food as soon as you can replenish it. Keeping the fridge well stocked can keep your going for a few weeks until the emergency weans. Food emergencies can strike when you are snowed in or are marooned due to floods. This type of emergency is easy to detect and storing food will not be a difficult task.

#### **Arrange For An Alternative Cooking Source:**

Do not rely on your cooking gas for your cooking needs. In times of emergencies it is certain that cooking gas can be a scarce commodity. It is good to have an oil stove or a wood fire to tide you over during the emergency.

#### **Emergency Lighting:**

Ensure that you have ample emergency lighting like candles, lamps and flashlights. In today's day and age lighting is not such a problem with inverters and stuff that can kick in automatically and last you for days on end without having to be re-charged. So ensure that you can see your

way around in the darkness in case of a blackout.

#### **Keep Prescriptions & Medications Handy**

If you have ailing people in the family it is important to maintain a file with the medical papers including prescriptions from doctors. Yu should also have a first aid kit at hand complete with the prescription medications and solutions for accidents. Insecticides and antidotes for stings and bites should be top priority in the kit. You should also have good knowledge of applying first aid. Preferable some members of the family should take first aid courses just in case.

#### **Keep Some Cash & Gas Stored Away**

It is a good idea to have some cash and some automobile gas stored away in the home just in case you need to take a ride to the nearest health care center or even to get some help in the middle of the night. You definitely do not want to be low on gas especially in a place where the nearest gas station is miles away.

### **HEROES NEED HELP TOO**

When some trouble crops up, there are people employed to help you, no matter in what situation you are in. There are police officers, fire workers and other government bodies that help you in times of crisis and are just a call away. Now, if they are here to help us, then, who will help them when they are in some sort of problem? The lot that is selfless and valiant and comes to your rescue at the times of crisis ends up facing some problem that is really dangerous and even life threatening at times. The death rate of the people working in the fire and police departments are enough to stir your conscience and take a look at them. Apart from the risk involved, the improper schedules spoil their health and there is no one to take care of them.

The facts can be conveniently hidden, but, that does not mean they will just vanish, nor will your conscience let you wipe it off. Some of the most influential government agencies think that the whole issue will disappear into thin air, but it is not so. Something truly has to come up to knock on their conscience. They will push this whole issue out of the frame and behave like nothing happened and will continue in the path of unrighteousness and take this as an advantage. The women and men who selflessly give themselves to the nation are made look like fools by the government. These workers need to get what every other citizen of the great United States gets, and its time for the citizens of this nation to save these heroes from being bullied around by the government.

If you are a citizen who really cares, and thinks that you need to make some difference in their life, just show your support by sending them a card to the local fire station. Just drop by at the police station and appreciate them for the good job that they carry out every day. You can also help them financially for getting the necessary gear to make them safe at work. This is not wastage of money, but it is some sort of an investment to secure your future. These heroes will save your life someday with these equipments some day when you are in trouble. Do not leave it right there, take a step forward and tell the government officials that this is important to you. Write to the higher authorities, say, like to the mayor asking him to help you with what you are doing now. Sometimes, these heroes are not even acknowledged.

We never realize that we are the only person who can help ourselves when we need help. There are many policemen, fire people and EMT's who help you with all that they have when you need it. They do not ask for anything in return and do not take anything for granted. As a citizen of the great nation it is duty to take care of all the heroes who take care of us, when they are in some sort of an emergency. We need to give them the Peace of Mind that they give us every other day.

### UNDERSTAFFING IN EMERGENCY DEPARTMENTS - CAUSES AND WAYS TO OVERCOME IT

Many of us are sure to have had experiences where we have waited for longer than we would have wished for the services of the police. Many people get really wild since it might take hours for these emergency management people to come to the spot of the problem. Some treat them in the most unwelcome way because of this. Sadly, it is not the fault of these selfless people. Much unlike your imagination, these people are not whiling away their time will you call out for them. In 99% of the cases, they would have been at some other emergency location. The greatest reason for the delay is not their negligence but the lack of staff in the police and emergency departments.

While the rate of crime and number of emergencies that occur in most areas is going up, the rate of recruitment of new staff and the number of people in the crime-control and emergency departments is in fact going down. This makes the situation as bad as it can get. There are various reasons contributing to the lack of staff in these departments. Some of these are jobrelated injuries and deaths, and rarely ,misconduct while at work. It is easy for us to shift the blame back to them saying that they ought to maintain pure and perfect lives. We fail to realize that they are too, like us, mere mortals who are bound to err. They would have experience more trauma at work and out of it during their working years than most people would during their entire lifetime. This naturally makes them lose job-satisfaction at times and feel angry for the way life is treating them. The severity of understaffing is shocking on a national scale. Places which have a more rural setting suffer from more severe understaffing than more urban areas. The amount of pay and the way the city treats these officials are some of the contributing factors to this understaffing. Mayors who do not pay heed to the concerns of the emergency department and don't support the actions of the cops also contributes to loss of job satisfaction. They have very low pays and moral support considering the strain of their work. Budget cuts reflect severely in most local police departments and show their ugly face out in the form of insufficient ammunition and pay cuts.

Lack of funds for encouraging people to join these forces by offering better pay packets and incentives also leads to understaffing of local police. There is more to recruiting people than

money, which remains the most important though. These small things, or the lack of it may make a person join or leave these forces. They feel insecure, unloved and unsupported. They are facing legal and moral problems due to lack of support. This makes them become mere puppets and makes them lose emotional contact with the job. If criminals notice this disunity, they might increase the crime rate even more and openly deepening this vicious circle.

To make them feel cared for is in the hands of the state or city government. Spread the word that these people need support. When more of us show appreciation for their life-staking efforts, the governments will slowly begin to do more for these departments. Keep in touch with the city council's workings. Criminals need not be just the ones who are breaking into houses and killing people. They might also be in a thoroughly formal outfit complete with a suit and tie and might have even been elected to their positions. But remember, to help crime rate increase indirectly by cutting down the funds to these emergency departments is a crime unto itself. Understaffing wont go away unless we join our hands to force it to.

# TEACHING YOUR CHILDREN ABOUT POLICE OFFICERS AS COMMUNITY HELPERS

Knowingly or unknowingly, you would have given your child a bias about the women and men who serve as police officers in your town. Just look back and knock at your conscience and ask yourself if you have done the best to teach your kid respect and the appreciation that the police officers deserve in this society? Or, have you created an impression that the police officials are annoying people who expect you to be scared of them? Most of us have actually not learnt how to behave or respect a police officer; this is a big mistake, not done just by us, but by the whole society in not seeing the police officer as one amongst us.

We begin to train our kids early in life by doing simple things like pointing out at the police cars and say, "look there, that's a cop, stay still, or he will put us in the jail". This is when your kid starts associating hatred and fear with police, this is the basic level, but if he constantly keeps hearing things like this, he will obviously think bad about the whole department. The kid must respect the police, not be afraid of them. Many towns let the police interact with the people on a daily basis, like visiting schools to educate children, especially about stranger safety and car safety and a lot more. This time spent with them will let the children think and they will naturally develop some sort of a respect towards the police people who really care. The kids need to develop a positive attitude towards them, and they must approach the policemen in case they have some sort of a problem. One must never let the negative influence dominate the kid, especially when it is related to the people who try to help us. This helps the kids grow up as sensible citizens, and not teaching them the right thing only curbs their future.

It is a parent's responsibility to educate the kid about the duties of a police officer and also tell him how responsible the police people are. They must be taught what to expect from them and what not to. Off late, we are forced to build the negative qualities in the kids by telling them the wrong things about the policemen because we generalize a lot and see all police men as rogues. There are a lot of good officers in the department and they are also seen as bad people because of the activities carried out by several other police people. It is our duty to teach the kids to differentiate between the good ones and the bad ones. By doing this, we are only building the rapport between the public and the police officers, which will help them serve better.

Refer to the nearest police station and talk to them about educating kids that police are good community helpers and not the foes of public. This can be done by arranging a tour in the police department. This is only to educate them, and not to terrify them. The police departments in many towns are really interested in doing such things to build the rapport between them and the public. By doing such things, the public will be able to understand the ideals of the police department.

### POSITIONS IN THE POLICE DEPARTMENT - JOB DESCRIPTIONS

May people are under the false impression that they know all that is there to know about when discussing about police officers and other law enforcers. Their knowledge however may not even cover the basic description of the jobs of these brave men. Few people know the differences among the various posts in the police department. Though most of these departments have a singular objective which is to protect and serve the people, there are a myriad of differences between them. An investigation detective is one who investigates very difficult and high profile cases. Their working hours are very unusual and they need to remain calm and composed to crack the crime. Their work conditions are full of peril and are highly stressful. In spite of all this, these investigators need to keep a clear mind and make the right decisions on and off the spot of crime. Though television has glamorized his role a lot and many investigators are portrayed as heroes, real life is much less glamorous and work is strenuous and tiring.

The community resource and bicycle patrol officers occupy the next two posts. The first, interacts with the general public and fills in the position of the police department's spokesperson. They make appearances at schools and in gatherings. They cement relations of the police department with the public and also communicate the various safety and precautionary measures to the public. Various departments might need varied skill sets for this kind of an official. The bicycle patrol squad needs official with the ability to take quick decision and also with good biking abilities. These people, while enforcing law and order, are also able to strike a personal chord with the general public.

Knowledge of usage of narcotics, their cost, ill-effects are all mandatory for a Narcotics officer. Such an officer should have the ability to interview witnesses and suspects, investigate crimes and appear in both state and federal courts. such an officer might be called for work at any hour and works round the clock to keep the state drug-free. The Gang Crimes Investigator is closely related to the narcotics officer but has different work. This officer will have to manage and prevent gang related crime. The activity of various gangs must be tracked and kept note of by this officer and any dispute must be quickly solved. The Field Training Officer(FTO) helps educating new recruits or officers who have got a promotion, by teaching them various methods

to tackle issues they might face in the future. Since they train the staff, they are responsible for the overall efficiency of the department. The motor and traffic officer who is a part of the unit of traffic safety is responsible for enforcing proper control over traffic. He is also expected to prevent and investigate accidents. Also, this officer patrols along bike paths and connects with the general public and pays heed to their concerns. They are give then power to enforce warnings and issue tickets to the law breakers.

Among the most important posts in the department is the K-9 trainer and handler post. A k-9 officer is responsible for maintenance of his or her dog and tending to their health. They also train the dog. Apart from this, they are supposed to increase the awareness of using dogs in police work among the general public. They also assist any law enforcement squad that need the services of these dogs. These officers maintain a personal and professional bonding to their respective K-9s.

This is by no measure a complete listing of positions in the police department. There are official who wear several and continue to perform all their jobs professionally and efficiently. This indicates their superior abilities and their dedication to serving people in need anywhere. The number of positions they hold is immaterial to them and their sole driving force is their motto, to serve selflessly and protect their fellow citizens.

### **POLICE SEARCH AND SEIZURE**

Search and Seizure procedure is a well known phenomenon in the police department. This procedure is absolutely legal and it allows any official from the law enforcement department to conduct a search on one's individual property in suspicions of any kind of criminal activity or for any crime committed by an individual. There are several rules to be followed when carrying out a search and seizure procedure. Unauthorized search and seizure cannot be carried out by any police official, and it is condemned. Everyone has his right to claim his privacy and can question when it is invaded. Anyone whose property is going to be checked can actually claim a warrant, in which case, a warrant must be submitted before the raid is conducted.

The United States Constitution has put the search and seizure procedure in the fourth amendment act. The violation of the fourth amendment act is pretty common in the society. This act gives the assurance that the any citizen can claim security against the whole idea of seizure. There must be a very valid reason for the search warrant to be issued by the judge in the court. The warrants are not always issued when there is a lack of evidence in the case. Fourth amendment is a weird rule with certain requirements that have to be brought in when the court deals with the search and seizure procedure.

If a search warrant was issued, and if there is a valid reason behind it, there are certain things that can question the fidelity of the warrant. And it's the duty to assure the individual that a proper procedure has been carried over to get the consent of the concerned authorities to carry the search out. In case there is no warrant, a search can be conducted with the consent of the person whose place is being raided. There are no points to state that a search is voluntary. The court decides if the case given is valid or not after looking into the situation. The law enforcement people don't have the necessity to inform the concerned person about the search. In case there is another party involved, who is the owner of the property, then, they have all the right to give a permission to search the house without the present tenant's permission. The search and seizure procedure was instituted in such a way that the government has the maximum hold over the rule, anyone who is suspected can be searched without prior information, all that is required is a proper notice to the concerned authorities as to why the procedure is going to be carried out on that particular individual.

The whole idea behind this search and seizure procedure is to ensure that the community is protected from all sorts of wrong happenings. It is true that ones privacy needs to be respected, and nobody wants to go home with a feeling that his rights have been overstepped, but, this is seen in a more wider perspective as a society, and not as an individual. This is the reason for which the fourth amendment was coined. It is always wise for you to keep yourself aware about all the rights that you have and what can be done to protect it. The best idea to protect yourself from all these hassles is to be a citizen who abides by the law, so that you will stay out of trouble.

# SEARCH AND RESCUE EMERGENCY WORKERS

Search and Rescue workers have the most difficult but also the most underestimated work. Their names are self-describing. The help of these people is sought during times of disasters for their knowledge skill and expertise at handling emergencies. Novice or the beginner, support personal along with the field personnel are the three categories of emergency workers. The requirements for being an emergency worker varies from state to state and a person who wants to serve must consult his state's requirements. Right from the novice search and emergency worker, the common qualifications are not necessarily the same as the duties to be performed by only them. These workers are normally positioned keeping in mind their strengths. The only absolutely necessary qualification is that all these workers need to be in perfect health and must be very fit both physically and mentally. Along with this, they should have sufficient knowledge of the novices in the field. Only then can they perform what they are expected to do.

To become a support-qualified worker which is the next level of personnel in emergency workers, the basic qualifications are almost the same as the novice level but there can be many state-dependent laws and additional qualifications. These people too like the novice are expected to be in the pink of their physical and mental health at all times to be able to complete their job. They should have the ability of understanding the skills of field personnel but need not have the physical abilities of expertise of them. Knowledge of first aid, resuscitation, managing fractures by immobilizing bones, controlling bleeding, protection from foreign elements, protecting from blood borne pathogens are all mandatory. They should also have the knowledge of flying a helicopter or at least its basic operating procedures. This is considered as one of the toughest parts. One can take up a basic course at any emergency management division approved center for this. If operation of the helicopter becomes compulsory, the emergency support worker must be able to demonstrate his/her skills in handling a helicopter. Also the person must take intermediate and advanced EMD approved courses for completing his/her duty.

The last category of emergency workers are the field search and rescue workers. This requires top physical and mental performance of the worker because of the harsh conditions they might have to face. This includes living under extreme conditions outdoors and knowledge of basic

survival techniques. These people also need to have excellent knowledge of first aid and need to know ways of protecting themselves and others from blood borne pathogens. Apart from this, they also need to know handling fractures and cardiopulmonary resuscitation. They must be able to control mild to severe bleeding and also protect themselves from the elements of nature. All this apart, they should have the ability of living in wilderness, knowledge of map and compass reading and know various methods of navigation. Also, these people need to have proper knowledge on flying and controlling helicopters with successful completion of EMD approved basic, intermediate and advanced courses. Search and Rescue methods are a compulsory knowledge for this category. They should be able to handle crime scenes by recognizing it as it is. They must be able proceed along the right track and finish the investigation or at least contain the site till the arrival of additional experts.

As mentioned before, these are not hard and fast rules but merely general requirements. The specific rules are dependent on the state in which the person is working and their needs. In order to completely understand what is required of you to become an emergency worker, research the requirements and guidelines of the state for job requirements in different categories.

# TEACHING THE NEXT GENERATION TO RESPECT

The way in which things are moved plays a major role and creates a lasting impression in the minds of the local law enforcement in accepting opinions from the next generation kids. The agency constitutes members who live right next to you in your locality. How can one have a negative feeling about a neighbor who is trying to serve you? It is necessary that the younger kids are taught how to respect the neighbors. We need to revisit the policies about what we teach the kids of today. Sometimes, we tend to think that the present age children have more chances of becoming criminals than responsible citizens. That is something that none of us want.

A kid who is very young can be easily taught about all these things, as this is the age when they can grasp many good things. It is good to take your kid to the police station nearby and let him meet the officers there. Give the kid a valid reason for which the police will be harsh, and that he need not be scared looking at these people in uniform. Tell them that the police officers are here to set the citizens right when they are doing something wrong. The law enforcers can actually visit schools and give brief lectures about how a kid should behave with strangers, how it should take care of itself while walking home and other things that are really useful. It is our duty to teach the kids that the law enforcers are here to protect us and they will gladly help us whatever the problem is, and that the citizens must feel comfortable when they are around.

All the youngsters must know how the law can help them. It is essential to equip them with law and we must give them a brief idea as to what happens in certain situations. It must be explained to the kids that everyone is equal in front of law and no one gets special privileges. They are not superheroes, so they will act as per the code of conduct and they do make mistakes, so, this gives a more realistic view about them. They need not freak out on looking at a man clad in uniform. Apart from this, they must be informed that what they see on the television bout a larger than life hero is all humbug. They must understand that there is no second chance when it comes to life. Assure them that the presence of these people only

provides a safer environment.

A list of the programs conducted by the law enforcers must be maintained and the kids must be constantly guided by the law so that they don't take the wrong path. The older children must be

taken for a trip to jail so that they get more realistic and stop believing in what they see in cinema. This will also reduce their fear and they will stop being afraid where they don't really need to. This will let them know what will happen if they commit a particular crime. In case a person needs information about the enforcement agencies, just take a look on the internet or visit the library.