

FAMILY EMERGENCY PLAN CHECKLIST

The next time disaster strikes, you may not have much time to act and local first responders may not be able to reach you right away. **PREPARE NOW** for a sudden emergency and discuss these ideas with your entire family to create a **Family Emergency Plan**.

Even though this checklist looks long and scary, it is easy to do and can help you make a plan. We suggest you and your family review this list, then read the *entire* Manual since there are many tips mentioned in various topics and Sections that could help develop your plan.

PLEASE make some time in your busy lives to prepare for a disaster... a few minutes now could possibly save a life when a disaster hits!

Remember - be aware... be prepared... and have a plan!

LEARN ABOUT RISKS & EXISTING PLANS:

(See Section 4 for phone numbers of State & Provincial Emergency Management and Red Cross offices - or check city/county white pages)

- [] Find out which disasters could occur in your area.
- [] Ask how to prepare for each disaster... but read this Manual first!
- [] Ask how you will be warned of an emergency.
- [] Learn your community's evacuation routes.
- [] Ask about special assistance for elderly or disabled persons.
- [] Ask your workplace about Emergency Plans.
- [] Learn about emergency plans for your children's school(s) or day care center(s).

TIPS ON MAKING YOUR FAMILY PLAN:

*(Review all and complete **Family Emergency Plan** on pages 16-17):*

- [] Meet with household members to talk about the dangers of fire, severe weather, earthquakes and other emergencies. Explain how to respond to each using the tips in this Manual.

- [] Find safe spots in your home for each type of disaster that affects your community. (*see Section 2 for explanations of each disaster*)
- [] Talk about what to do when there are power outages and injuries.
- [] Draw a floor plan of your home then, using a black or blue pen, show location of doors, windows, stairways and large furniture. Mark locations of emergency supplies, disaster and first aid kits, fire extinguishers, smoke detectors, collapsible ladders, and utility shut-off points. Next, use a colored pen to draw a broken line charting at least two escape routes from each room.
- [] Show family members how to turn off water, gas and electricity at the main switches when necessary.
- [] Post emergency telephone numbers near telephones.
- [] Teach children how and when to call 9-1-1, police and fire departments (*see Section 3*).
- [] Make sure household members understand they should turn on the radio for emergency information.
- [] Pick one out-of-state and a local friend or relative for family members to call if separated during a disaster. (It is often easier to call out-of-state than within the affected area.)
- [] Pick two emergency meeting places in case you can't go home.
 1. A place near your home.
 2. A place outside the neighborhood
- [] Teach children emergency phone numbers and meeting places.
- [] Put **ICE** before a name and number in cell phone address books so First Responders would know who to call “**In Case of Emergency**”.
- [] Take a basic first aid and CPR class. (*see Section 3 for some Red Cross programs*)
- [] Practice emergency evacuation drills with all household members at least two times each year.
- [] Keep family records in a water- and fire-proof container. Consider keeping another set of records in a safety deposit box offsite.
- [] Check if you have enough insurance coverage. (*see Section 2 for more information on lood insurance.*)

WILDFIRE MITIGATION

As our population continues to grow, more and more people are building homes in places that were once pristine wilderness areas. Homeowners who build in remote and wooded areas must take responsibility for the way their buildings are constructed and the way they landscape around them.

Use Fire Resistant Building Materials

The roof and exterior structure of your home and other buildings should be constructed of non-combustible or fire-resistant materials. If wood siding, cedar shakes or any other highly combustible materials are used, they should be treated with fire retardant chemicals.

Landscape wisely

Plant fire-resistant shrubs and trees to minimize the spread of fire and space your landscaping so fire is not carried to your home or other surrounding vegetation. Remove vines from the walls of your home.

Create a “safety zone” around the house

- Mow grass regularly.
- Stack firewood at least 100 feet (30 m) away and uphill from home.
- Keep roof and gutters free of pine needles, leaves, and branches and clear away flammable vegetation at least 30 to 100 feet (9 to 30 m) from around structures.
- Thin a 15-foot (4.5 m) space between tree crowns and remove limbs within 10-15 feet (3 - 4.5 m) of the ground.
- Remove dead branches that extend over the roof.
- Prune tree branches and shrubs within 10 feet (3 m) of a stovepipe or chimney outlet.
- Remove leaves and rubbish from under structures.
- Ask power company to clear branches from power lines.
- Keep combustibles away from structures and clear a 10-foot (3 m) area around propane tanks, boats, etc.

Protect your home

- Install smoke detectors, test them each month and change batteries once a year.
- Install protective shutters or fire-resistant drapes.
- Inspect chimneys twice a year and clean every year.
- Cover chimney and stovepipe flue openings with 1/2 inch (1 cm) or smaller non-flammable mesh screen.
- Use same mesh screen beneath porches, decks, floor areas and home itself. Also screen openings to attic and roof.

- Soak ashes and charcoal briquettes in water for two days in a metal bucket.
- Keep a garden hose connected to an outlet.
- Have fire tools handy (ladder, shovel, rake, ax, etc.)
- Put address on all structures so it can be seen from road.

WINTER STORM & EXTREME COLD MITIGATION

Severe winter weather causes deterioration and damage to homes every year. There are many things you can do to prepare for the bitter cold, ice and snow in advance to save you money and headaches in the long run. Some of these tips should be used by apartment dwellers too!

“Winterize” your home

- Insulate walls and attic.
- Caulk and weather-strip doors and windows.
- Install storm windows or cover windows with plastic film from the inside to keep warmth in.
- Detach garden hoses and shut-off water supply to those faucets.
- Install faucet covers or wrap with towels and duct tape.
- Show family members the location of your main water valve and mark it so you can find it quickly.
- Drain sprinkler water lines or well lines before the first freeze.
- Keep inside temperature of your home at 68 degrees Fahrenheit (20 degrees Celsius) or higher.
- Wrap pipes near exterior walls with towels or heating tape.
- Change furnace filters regularly and have it serviced.
- Make sure you have good lighting from street and drive-ways to help others see snow and ice patches and try to keep paths clear of drifts.
- Remove dead tree branches since they break easily.
- Cover fireplace / stovepipe openings with fire-resistant screens.
- Check shingles to make sure they are in good shape.

Preventing “ice dams”

A lot of water leakage and damage around outside walls and ceilings are actually due to “ice dams”. Ice dams are lumps of ice that form on gutters

or downspouts and prevent melting snow from running down. An attic with no insulation (like a detached garage) or a well-sealed and insulated attic will generally not have ice dams. But if the roof has peaks and valleys, is poorly insulated, or has a large roof overhang, ice dams usually happen.

Some tips to prevent ice dams:

- Keep gutters and downspouts clear of leaves and debris.
- Find areas of heat loss in attic and insulate it properly.
- Wrap or insulate heating duct work to reduce heat loss.
- Remove snow buildup on roof and gutters using snow rake or soft broom.
- Consider installing roof heat tapes (electric cables) that clip onto the edge of your shingles to melt channels in the ice. (Just remember - cables use a lot of energy and may not be pretty but could help on older homes with complicated roofs.)

Preventing frozen pipes

- Keep doors open under sinks so heat can circulate.
- Run a slow trickle of lukewarm water and check water flow before going to bed and when you get up. (First sign of freezing is reduced water flow so keep an eye on it!)
- Heat your basement or at least insulate it well.
- Close windows and keep drafts away from pipes since air flow can cause pipes to freeze more often.

MITIGATION TIPS SUMMARY...

Take responsibility...

Basically, no matter where you live, YOU should take personal responsibility and prepare yourself, your family and your property BEFORE disasters or natural hazards strike.

...and learn more!

After reviewing the remainder of this manual, please contact your local emergency officials or your local building department to learn about all the risks in your area and what to expect if disaster strikes.

Or visit FEMA's Mitigation Division at www.fema.gov

Remember ... it's not a matter of IF but rather WHEN a disaster of some type will affect you or a loved one. The best thing you can do to deal with ANY type of disaster is...

BE AWARE... BE PREPARED... and... HAVE A PLAN!

If you do these 3 things, the life and property you save could be your own... because what you don't know CAN hurt you!

Now we are going to explain what to do **BEFORE**, **DURING** and **AFTER** specific types of natural and man-made disasters (sorted alphabetically).

Then we'll cover some tips on **RECOVERING FROM A DISASTER** (includes many "AFTER" tips that apply to most every type of disaster) and on **SHELTER LIVING**.

We then offer some tips on **USING HOUSEHOLD FOODS, WATER PURIFICATION**, and **SANITATION OF HUMAN WASTE** followed by tips for **HELPING OTHERS** at the end this Section.

Section 3 covers a variety of basic First Aid topics (sorted alphabetically) that may be necessary to use during a major disaster or just for the minor injury at home.

Section 4 contains many helpful telephone numbers of organizations in America and Canada.

And finally, we ask you please take some time to review the topics, resources and web sites near the back of this manual.

As mentioned in the Introduction, a majority of this data was compiled from various publications provided by the American and Canadian Red Cross, U.S.'s Department of Homeland Security and FEMA, Canada's PSEPC and others to assist you in preparing for various disasters.

We realize you may not experience every type of disaster or emergency in your part of the world but, if you ever travel away from home, you could potentially be placed in a disaster situation so please educate yourself and your family. Knowledge is power and can help reduce fear and anxiety.

What are YOU gonna do about...

AN EVACUATION?

Evacuations are quite common and happen for a number of reasons – fires, floods, mudflows, hurricanes, or chemical spills on the roads or railways.

When community evacuations become necessary, local officials provide information to the public usually through the media. Government agencies, the Red Cross and other disaster relief organizations provide emergency shelter and supplies. But, as we have said before, you should have enough food, water, clothing and emergency supplies for at least 3 days - or longer in a catastrophic disaster - in case you cannot be reached by relief efforts.

The amount of time to evacuate obviously depends on the type of disaster. Hurricanes can be tracked and allow a day or two notice to get ready, but many types of disasters happen without much notice... so prepare NOW!!

BEFORE AN EVACUATION:

Ask & learn - Ask emergency management officials about community evacuation plans and learn the routes that should be used. Also learn the signs used for your area - and, if you're traveling, make a mental note what evacuation signs look like in case something happens while on the road.

Make a plan - Review Section 1 and develop a **Family Emergency Plan** (so you know where to meet if separated, know what schools or day cares do with kids, have a **Disaster Supplies Kit** ready to go, etc.) If you don't have a car, make arrangements with friends, neighbors or local officials so you have a way to evacuate.

Where do we go? - Talk with your family members and decide in advance where you would go in case you can't return home for weeks or months. If your home is damaged or destroyed or you're forced to leave your home due to on-going threats (like mudslides or flooding), you will need to find temporary or permanent living quarters. This could mean staying in a public shelter or hotel, living with friends or relatives, or renting a home or apartment in the middle of all the chaos, so discuss several options. Then, write down your various options and share them with relatives and friends.

Paperwork & money - As discussed in Section 1, put important paperwork (wills, photo I.D.s, insurance policies, list of bank and credit card numbers, etc.) in a portable fireproof container (and have copies in an off-site safety deposit box) so you have identification to get access to your bank or to set up new accounts if you have to relocate long-term to another town.

Fill 'er up - Keep car fueled up if evacuation seems likely since gas stations may close during emergencies.

Learn to shut off - Know where and how to shut off electricity, gas and water at main switches and valves -- ask local utilities for instructions (and keep a wrench handy).

Review tips on basic needs - Please review TIPS ON SHELTER LIVING, TIPS ON USING HOUSEHOLD FOODS, TIPS ON WATER PURIFICATION and TIPS ON SANITATION OF HUMAN WASTE near end of this section to prepare yourself and family for what to expect.

DURING AN EVACUATION:

Listen - Keep up on news reports for the latest information.

Grab & Go - Grab your **Disaster Supplies Kit** (has water, food, clothing, emergency supplies, insurance and financial records, etc. ready to go).

What do I wear? - Put on protective clothing (long sleeve shirt and pants) and sturdy shoes - may even want to grab a jacket, hat or cap.

Shut off utilities - Turn off main water valve and electricity (if authorities tell you to do so).

Secure home - Close and lock doors and windows, unplug appliances, protect water pipes (if freezing weather), tie down boats, etc. (*See specific types of disaster for additional tips on securing home.*)

Alert family / friends - Let others know where you are going (or at least leave a message or note in clear view explaining where you can be found).

Things to avoid:

- **bad weather** - leave early enough so you're not trapped
- **shortcuts** - may be blocked -- stick to the recommended Evacuation routes
- **flooded areas** - roadways and bridges may be washed-out
- **downed power lines**

Review tips on basic needs - Make sure you review tips on SHELTER LIVING, USING HOUSEHOLD FOODS, WATER PURIFICATION and SANITATION OF HUMAN WASTE at end of this section to prepare your family for the unexpected.

Typhoon - used in Northwest Pacific Ocean west of the dateline - **Guam, Marshall Islands, Japan, Philippines, Hong Kong, coastal Asia**

Tropical cyclone - used in Southwest Pacific Ocean west of 160E or most of Indian Ocean - **Australia, Indonesia, Africa, Middle East**

Hurricanes are classed into five categories based on wind speeds, central pressure, and damage potential. The chart below is called the Saffir-Simpson Hurricane Scale with examples of damage provided by FEMA:

Scale # (Category)	Sustained Winds	Damage	Storm Surge
1	74-95 mph 119-153 km/h	Minimal: Untied mobile homes, vegetation & signs	4-5 ft 1.2-1.5 m
2	96-110 mph 154-177 km/h	Moderate: All mobile homes, roofs, small crafts, flooding	6-8 ft 1.8-2.4 m
3	111-130 mph 178-209 km/h	Extensive: Small buildings, low-lying roads cut off	9-12 ft 2.7-3.6 m
4	131-155 mph 210-249 km/h	Extreme: Roofs and mobile homes destroyed, trees down, beach homes flooded	13-18 ft 3.9-5.4 m
5	> 155 mph > 250 km/h	Catastrophic: Most bldgs and vegetation destroyed, major roads cut off, homes flooded	> 18 ft > 5.4 m

BEFORE A HURRICANE:

Prepare - Review WIND, FLOOD, and LIGHTNING MITIGATION at beginning of this Section.

Learn the buzzwords - Learn the terms / words used with hurricanes...

- **Hurricane/Tropical Storm Watch** - hurricane/tropical storm is possible within 36 hours so listen to TV and radio updates
- **Hurricane/Tropical Storm Warning** - hurricane/tropical storm is expected within 24 hours -- may be told to evacuate (if so, do it) and listen to radio or TV for updates
- **Short term Watches and Warnings** - warnings provide detailed information on specific hurricane threats (like flash floods and tornadoes)

Listen - Keep local radio or TV tuned in for weather forecasts and updates. (Some other radios to consider are Environment Canada's Weatheradio and

NOAA's Weather Radio with battery backup and tone-alert feature that automatically alert you when a Watch or Warning has been issued.)

Be ready to evacuate - Listen to local authorities and leave if you are told to evacuate. (*see EVACUATION*)

Make a plan - Review Section 1 to develop a **Family Emergency Plan** and **Disaster Supplies Kit**.

Learn to shut off - Know where and how to shut off electricity, gas and water at main switches and valves -- ask local utilities for instructions.

Batten down - Make plans to protect your property with storm shutters or board up windows with plywood that is measured to fit your windows. Tape does not prevent windows from breaking. (*see WIND MITIGATION*)

Get insurance...? - Talk to your agent and find out more about the **National Flood Insurance Program**. (*see FLOOD MITIGATION*)

Put it on film - Either videotape or take pictures of home and personal belongings and store them in a safe place (like a fireproof box or a safety deposit box) along with important papers.

DURING A HURRICANE THREAT:

Listen - Have a battery-operated radio available to keep up on news reports and evacuation routes.

Evacuate? – If you are told to evacuate - do it! (*see EVACUATION*) And if you have time also...

- Secure your home - close storm shutters or put up boards on windows, moor your boat, and secure outdoor objects or put them inside since winds will blow them around.
- Turn off utilities at main switches or valves, if instructed.
- Fill up your car with fuel.

Food & water - If you prepared ahead, you'll have your **Disaster Supplies Kit** handy to GRAB & GO... if not, gather up enough food and water for each family member for at least 3 days!

IF INDOORS – Stay inside!

- Find a **SAFE SPOT** - get to small interior room, closet or hallway ... or lie on the floor under a heavy desk or table.
- Move away from windows and glass doors.

What is Electromagnetic Pulse (EMP)?

If a nuclear device is detonated above North America, the radioactive fallout would be much less than an impact on the ground, however it would create a high-density electrical field called an electromagnetic pulse.

An EMP creates a split-second energy burst (like a stroke of lightning) that could fry electronics connected to wires or antennas like cell phones, cars, computers, etc. Unless electronics are grounded or encased in a metallic shield (hardened), North Americans could experience anything from minor interference to crippled power, transportation and communications systems. According to FEMA, most electronic devices within 1,000 miles of a high-altitude nuke could be damaged by EMP but battery powered radios with short antennas would be okay. Most people wouldn't be harmed by an EMP but folks with pacemakers or other implanted devices could be.

Community Planning for Emergencies (U.S. and Canada)

Local, state and provincial governments, Federal agencies and utilities have developed emergency response plans in the event of a nuclear power plant accident.

United States' plans define 2 "emergency planning zones" (EPZs)

(Per FEMA's RR&R Radiological Emergency Preparedness Program)

- **Plume Exposure EPZ** - a 10-mile radius from nuclear plant where people may be harmed by radiation exposure
NOTE: People within a 10-mile radius are given emergency information about radiation, evacuation routes, special arrangements for handicapped, etc. via brochures, phone books, and utility bills.
- **Ingestion Exposure EPZ** - about a 50-mile radius from plant where accidentally released radioactive materials could contaminate water supplies, food crops and livestock

Canada's Provincial Nuclear Emergency Response Plans define 3 "zones"

(Per Ontario Ministry of Public Safety & Security EMO PNERP Backgrounder)

- **Contiguous Zone** - approximately 3 kilometres from nuclear facility where evacuation and sheltering may be ordered
- **Primary Zone** - approximately 10 kilometres from the nuclear facility where evacuation and sheltering may be ordered
- **Secondary Zone** - approximately 50 kilometres from the nuclear facility where radioactive contamination could cause monitoring and/or bans on some food and water sources
NOTE: Public Education brochures are available to residents and businesses within the Primary Zone (10 km) of each nuclear facility.

BEFORE A NUCLEAR EMERGENCY OR INCIDENT:

Learn the buzzwords - Know terms used in both countries to describe a nuclear emergency: U.S. / (Canada)...

- **Notification of Unusual Event / (Reportable Event)** - a small problem has occurred at the plant. No radiation leak is expected. Federal, state/provincial and county/municipal officials will be told right away. No action on your part will be necessary.
- **Alert / (Abnormal Incident)** - a small problem has occurred, and small amounts of radiation could leak inside plant. This will not affect you and you shouldn't have to do anything.
- **Site Area Emergency / (Onsite Emergency)** - a more serious problem... small amounts of radiation could leak from the plant. If necessary, officials will act to ensure public safety. Area sirens may be sounded and listen to your radio or TV for information.
- **General Emergency / (General Emergency)** - the MOST serious problem... radiation could leak outside the plant and off the plant site. In most cases sirens will sound so listen to local radio or TV for reports and updates. State/Provincial and county/municipal officials will act to assure public safety and be prepared to follow their instructions!

Learn signals - Ask about your community's warning system and pay attention to "test" dates to learn if you can HEAR it. Nuclear power plants are required to install sirens and other warning devices to cover a 10-mile area around the plant in the U.S. (If you live outside the 10-mile area you will probably learn of the event through local TV and radio, but just be aware winds and weather can impact areas as far as 200 miles [320 km] away!!)

Learn risks - Ask the power company operating the nuclear power plant for brochures and information (which they or government sends automatically to people within a 10-mile [10-km in Canada] radius of the plant).

Make a plan - Review Section 1 to develop a **Family Emergency Plan** and **Disaster Supplies Kit**. Double check on emergency plans for schools, day cares or places family may be and where they'll go if evacuated.

Be ready to leave - Listen to local authorities and leave if you are told to evacuate.(see *EVACUATION*)

DURING A NUCLEAR EMERGENCY OR INCIDENT:

Stay calm - Not all accidents release radiation - may only be power plant!

Until recently, most terrorist attacks involved bombs, guns, kidnappings and hijackings, but some other forms of terrorism involve cyber attacks, biological or chemical agents, radiological or nuclear devices (the last 4 considered weapons of mass destruction [or “disruption” in some cases]).

Cyber attacks - computer-based attacks from individuals or terrorist groups causing severe problems for government, businesses and public in general (sometimes causing or leading to injury and death)

Biological agents - infectious microbes (tiny life forms), germs or other substances that occur naturally or are “designed” to produce illness or death in people, animals or plants -- can be inhaled, enter through a cut in the skin, or swallowed when eating or drinking

Chemical agents - poisonous vapors, liquids or solids that can kill or slow down or weaken people, destroy livestock or crops -- can be absorbed through the skin, swallowed or inhaled

Radiological threat or device - a “dirty bomb” or RDD uses conventional explosives to spread radioactive materials over a general or targeted area

Nuclear device - a bomb or missile using weapons grade uranium or plutonium (*please note, we covered nuclear-related incidents on pages 74-79*)

Weapons of mass destruction (WMD) - chemical, biological, radiological, and nuclear devices are now all classed as WMDs

Terrorism is quite an extensive topic now -- below we are listing some basic things to do before ANY type of terrorist attack followed by several pages explaining the **Homeland Security Advisory System** (color-codes).

Then we will cover specific types of potential terrorist attacks shown above in red - including what to do BEFORE, DURING and AFTER each and where to find more information. We also threw in some tips for handling “bomb threats” or “suspicious packages”.

Keep in mind, the best thing you can do about terrorism is prepare yourself and your family for the unexpected, so please review this topic and the previous one on “nuclear” threats. By learning about potential threats, we are all better prepared to know how to react if the unthinkable happens.

BEFORE ANY TYPE OF TERRORIST ATTACK:

BE AWARE! - You should always be aware of your surroundings and report any suspicious activities to local authorities.

Stay current on threats - Both U.S. Department of Homeland Security www.dhs.gov and Canada's PSEPC www.ocipep.gc.ca post alerts online

Learn "Threat Levels" - Review below **Homeland Security Advisory System** to see what your family or business should do at each color.

Know the targets - Terrorists usually prefer to pick targets that bring little damage to themselves and areas that are easy to access by the public (like international airports, military and government buildings, major events, schools, etc.) Some other high risk targets include water and food supplies, utility companies (esp. nuclear power plants) and high-profile landmarks.

Things to watch out for:

- **unknown packages** - DO NOT accept a package or case from a stranger
- **unattended bags** - report unattended bags or backpacks to authorities and don't ask strangers to watch your stuff or leave bags or purses alone (esp. when traveling)
- **emergency exits** - always be aware of where Emergency EXITS are... just casually look around for the signs since most are marked well in public places

Make a plan - Review Section 1 to develop a **Family Emergency Plan** and **Disaster Supplies Kit**. And Appendix B has plans & tips for **businesses**.

Get involved - Join a local Citizen Corps or CERT. (*see pages 217-219*)

ABOUT THE HOMELAND SECURITY ADVISORY SYSTEM

In March 2002, the **Homeland Security Advisory System (HSAS)** was implemented using color-coded "Threat Conditions" that increase or decrease based on reports from the Intelligence Community.

HSAS's "Threat Conditions" or "Threat Levels":

SEVERE = RED (Severe risk of terrorist attacks)

HIGH = ORANGE (High risk of terrorist attacks)

ELEVATED = YELLOW (Significant risk of terrorist attacks)

GUARDED = BLUE (General risk of terrorist attacks)

LOW = GREEN (Low risk of terrorist attacks)

Alerts and threat conditions can be declared for the entire nation, or for a specific geographic area or industry. The public should stay current with news and alerts issued by officials ... and be aware, be prepared, and have a plan at all threat levels.

The **District of Columbia Emergency Management Agency (DCEMA)** developed and contributed the following “Terrorist Threat Advisory System” that mirrors the national Homeland Security Advisory System. The DCEMA’s suggested precautions provide general guidance only to help organizations and families take actions best tailored for their needs. *Please note, there are some protective measures for federal departments and agencies per DHS included here too.*

LOW (Green) - a **low risk** of terrorism. Routine security is implemented to preclude routine criminal threats.

Residents are advised to:

- Continue to enjoy individual freedom. Participate freely in travel, work, and recreational activities.
- Be prepared for disasters and family emergencies.
- Develop a family emergency plan.
- Keep recommended immunizations up-to-date.
- Know how to turn off power, gas, and water service to your house.
- Know what hazardous materials are stored in your home and how to properly dispose of unneeded chemicals.
- Support the efforts of your local emergency responders (fire fighters, law enforcement and emergency medical service).
- Know what natural hazards are prevalent in your area and what measures you can take to protect your family. Be familiar with local natural and technological (man-made) hazards in your community.
- Volunteer to assist and support community emergency response agencies.
- Become active in your local Neighborhood Crime Watch program.
- Take a first aid or Community Emergency Response Team (CERT) class.

Business owners and managers are advised to:

- Develop emergency operations and business contingency plans.
- Encourage and assist employees to be prepared for personal, natural, technological, and homeland security emergencies.
- Conduct emergency preparedness training for employees and their families.
- Develop a communications plan for emergency response and key personnel.
- Conduct training for employees on physical security precautions.
- Budget for physical security measures.

Federal departments and agencies should consider:

- Refine and exercise planned Protective Measures.
- Ensure emergency personnel receive proper training on HSAS measures.
- Assess facilities for vulnerabilities and take measures to mitigate them.

What are YOU gonna do about... AN EMERGENCY?

Everyone should know what to do in an emergency. You should know who to call and what care to provide. Providing care involves giving first aid until professional medical help arrives.

The Emergency Medical Services (EMS) is a network of police, fire and medical personnel, as well as other community resources. People can help EMS by reporting emergencies and helping out victims until EMS can arrive.

During a major disaster, EMS groups will become swamped so if the public is prepared to handle some types of emergencies then we can help some of the victims until EMS arrives.

Your role in the EMS system includes the following things:

- BE AWARE...** Realize this is an emergency situation -- you could be putting yourself in danger!
- BE PREPARED...** Know how to handle the situation.
- HAVE A PLAN!** Check **ABCs...**, call 9-1-1 (or call for an ambulance) and help victim, if possible.

TIPS ON THE ABCs... AIRWAY, BREATHING & CIRCULATION

In an emergency, you need to check the victim for **ABCs...**

- Airway.** Open the airway by tilting the head back, gently lifting the jaw up, and leaving mouth open.
- Breathing.** Place your ear over victim's mouth and nose. Look at chest, listen, and feel for breathing for 3 to 5 seconds.
- Circulation.** Check for a pulse using fingertips (not your thumb) in the soft spot between throat and the muscle on the side of the neck for 5-10 seconds.

Staphylococcus aureus or MRSA) and occur most often in hospitals, nursing homes and facilities where people have weakened immune systems.

Things to watch for (staph)...

Possible symptoms - skin infection that may look like a pimple or boil and can be red, swollen, painful, or have pus or other drainage

Severe - pneumonia, bloodstream or wound infections

How infectious diseases spread...

Most infectious diseases are spread by close person-to-person contact primarily by touching people or things contaminated with bodily fluids (like droplets from coughing or sneezing) -- then touching your eyes, nose, or mouth. Body fluids (sweat, spittle, pee, etc.) from people or critters may be infectious and some bacteria or viruses can survive on objects for days.

What to do to reduce the spread of infectious diseases...

- Wash hands often or use hand sanitizer (with at least 60% alcohol in it) to reduce the spread of germs.
- Sick people should cover mouth and nose with tissue when coughing or sneezing, wash hands often, and wear a surgical mask around others (if extremely ill).
- Keep cuts and scrapes clean and covered until healed.
- Clean counter or tabletops, doorknobs, bathroom fixtures, phones, etc. often with bleach and wear gloves when cleaning or changing soiled linens.
- Don't share silverware, razors, clothing, towels, or bedding and wash objects with soap and hot water.
- Wear mask and wash often if you work at a poultry farm.
- Follow doctor's instructions and limit activities outside home until fever and symptoms have gone away.

For more information, visit the CDC, Public Health Agency of Canada, and the World Health Organization's web sites ...

Influenza / Flu: www.cdc.gov/flu/ www.phac-aspc.gc.ca/influenza/

Avian flu: www.cdc.gov/flu/avian/ www.phac-aspc.gc.ca/influenza/
www.pandemicflu.gov www.who.int/topics/avian_influenza/en/

SARS: www.cdc.gov/ncidod/sars www.sars.gc.ca www.who.int/csr/sars/en/

Staph: www.cdc.gov/ncidod/dhqp/ar_mrsa.html

Or call the CDC's Public Response Hotline at 1-800-CDC-INFO or 1-888-232-6348 (TTY).

What are YOU gonna do about...

A STROKE?

According to the American Stroke Association, about 700,000 Americans suffer strokes each year and almost 1/4 of those victims die making stroke the #3 killer in the U.S. Canada reports about 40,000-50,000 new strokes annually killing about 16,000 Canadians making it the 4th leading cause of death according to the Heart and Stroke Foundation of Canada.

A stroke (or “brain attack”) occurs when oxygen and vital nutrients carried by blood are cut off causing brain cells to die. It’s cut off because...

...a blood vessel is blocked in the neck or brain (by a blood clot or narrowing of an artery) -- called an **ischemic** [is-KEM-ik] stroke (*causes about 83% of strokes*)

... or ...

...a blood vessel bursts or leaks -- called **hemorrhagic** [hem-o-RAJ-ik] stroke or bleeder (*causes 17% of strokes*)

NOTE: You only have 2 - 6 hours maximum to stop permanent brain damage from a stroke - so get to a hospital as quickly as possible (within 3 hours is best!)

Things to watch for...

Sudden confusion, trouble speaking or understanding

Loss of muscle control on one side of the body

Loss of balance, stumbling, dizziness or fainting

Different sized pupils (one pupil small / one enlarged)

Severe headache

Blurred or double-vision in one or both eyes

Shock (pale, cold or clammy, weak or rapid pulse, etc.)

Transient ischemic attack (TIA / mini-stroke) - a minor or warning stroke - risk of major stroke is high

What to do...

- Call 9-1-1 for an ambulance.
- Get victim to lie back with head raised (put pillows or blankets under head and shoulders so partially sitting up).
- Loosen any tight or restrictive clothing.
- See if there are any other injuries.
- If victim is drooling or having problems swallowing, place them on their side to keep the airway open.
- Stay with victim until medical help arrives.

APPENDIX B

Business Continuity (Plan for the Unexpected)

WHAT IS BUSINESS CONTINUITY?

Basically the concept we're focusing on means how quickly your business can reopen and function following a flood, fire, windstorm or terrorist attack. By planning in advance with managers and employees, the odds of a company surviving and recovering from a disaster increase dramatically.

According to the Department of Homeland Security's *Ready Business* site, America's businesses form the backbone of the nation's economy; small businesses alone account for over 99% of all companies with employees, employ 50% of all private sector workers and provide nearly 45% of the nation's payroll. And, according to the American Red Cross Disaster Services' Business & Industry Guide web page: while reports vary, as many as 40% of small businesses do not reopen after a major disaster like a flood, tornado or earthquake. They were unprepared for a disaster; they had no plan or backup systems.¹¹

A commitment to planning today will help support employees, customers, the community, the local economy and even the country.

TIPS ON DEVELOPING YOUR BUSINESS PLAN

No matter what size your business is you should plan in advance to manage any type of emergency. Obviously, a large company's plan will be much more complex than a small home office or a Mom & Pop shop, but the following tips may help you get started.

Please note, we are only covering some key issues here extracted from DHS' *Ready Business* site then listing some resources and links at the end, but realize there are many other resources available to business owners including professional consultants who can come in and develop a business continuity plan for your company.

[Learn risks](#) - Ask your local emergency management office what types of natural and man-made disasters are common in the places where you have offices or buildings and review those topics in this book.

[Learn "Threat Levels"](#) - Review the District of Columbia Emergency Management Agency's **Terrorist Threat Advisory System** for tips on

what business owners and managers should be doing at each color code. (see pages 82-89)

Make a plan - Visit www.ready.gov/business and click on “Download Materials” to find Sample Plans, Checklists, Forms, etc. Also ...

- Find out which staff, materials, procedures and equipment are needed to keep your business operating.
- Create a list of suppliers, shippers, and key contacts you use daily.
- Decide where you would go if your building, office or store is not useable. (Known as a continuity of operations plan or COOP.)
- Plan for payroll continuity.
- Define who will help develop your company’s emergency plan.
- Make sure everyone involved knows what to do and have backup staff trained and ready to fill in, if needed.
- Share your plans with others in your building or complex and talk to local First Responders, vendors and others to exchange ideas, experience and knowledge.
- Update and review plans at least once a year if not more often.

Keep employees in mind - A good plan includes your most important asset.

- Keep lines of communication open both ways with newsletters, alert systems through email or voicemail, Q & A sessions with management and key personnel involved with planning, etc.
- Ensure you have plans for disabled employees and assign “buddies” to help during an emergency. Visit www.nod.org for tips.
- Update employee emergency contact data often and keep a current copy with other important papers off-site or in Grab & Go kits.
- Practice, practice, practice -- make sure all employees do drills and know what to do and where to go during and after a disaster.

Make or get Grab & Go kits - Review Section 1 for tips on assembling a **Disaster Supplies Kit** for your people. Share ideas with employees too since they may want to make their own small “Office Kit” with personal items. Many companies sell pre-stocked or customized Corporate Kits based on number of employees and days needed - check online or Yellow pages for “disaster products” or call your local Red Cross.

Stay or go..? - Plan in advance how staff should **shelter-in-place** versus **evacuate** the building. (see *THINK ABOUT SHELTER* in Section 1 and *EVACUATION* topic in Section 2)

Things to plan for if instructed to “Shelter-in-place”:

- Listen to local authorities and tune in radio or TV for updates.
- If possible, know who’s in the building if there is an emergency.

Measuring radiation - Radiation is measured in units called roentgens (pronounced “rent-gens” and abbreviated as “R”) ... or “rads”. Radiation detection devices measure the amount of radiation at a specific location or display the total amount of radiation you’ve been exposed to over a period of time. Exposure limits vary from person to person. Some people can handle higher amounts of rad exposure than others, but the key thing to remember is the less radiation you are exposed to the better.

How many rads are bad? - High doses of radiation in a short span of time can cause radiation sickness or even death, but if that high dose is spread out over a long period of time, it’s not as bad. According to FEMA, an adult could tolerate and recover from an exposure to 150R over a week or 300R over a 4-month period. But 300R over a week could cause sickness or possibly death. Exposure to 30R to 70R over a week may cause minor sickness, but a full recovery would be expected. But ... radioactive fallout decays rapidly so staying in a shelter with proper shielding is critical!

The “seven-ten” rule - An easy way to estimate the decay of radioactive materials is to use the “seven-ten” rule. For every sevenfold increase in time after the initial blast, there is a tenfold decrease in the radiation rate. Per FEMA’s “Preparedness Planning for a Nuclear Crisis” handbook, the below table shows how fast it drops from a level of 1,000 rads per hour:

<u>Hours after detonation</u>	<u>Fraction Remaining</u>	<u>Level of Radiation</u>
1	-----	1000 R / hr
7	1/10	100 R / hr
49 (2 days)	1/100	10 R / hr
346 (2 weeks)	1/1000	1 R / hr

In other words, if you have shelter with good shielding and stay put for even just 7 hours ... you’ve really increased your chances of survival!

Protect your thyroid - Slow down the absorption of radioactive iodine by taking **potassium iodide (KI)**. KI can be purchased over-the-counter and is known to be an effective thyroid-blocking agent. In other words, it fills up the thyroid with good iodine that keeps radioactive iodine from being absorbed into our bodies. However, KI cannot protect the body from radioactive elements other than radioactive iodine. (*Learn more about KI on page 75.*) A few other options to protect your thyroid include taking KIO₃ or applying an iodine solution to your skin.

Radiation sickness - Exposure to high levels of radiation (especially gamma rays) over a short period of time can cause severe illness or death.

- First symptoms - sick to stomach (nausea), puking and diarrhea can start within minutes to days after exposure. (Note: Keep in mind ... fear can cause similar symptoms.)

- More serious symptoms - person may look and feel healthy for a short time, then become sick again with loss of appetite, fever, nausea, puking, diarrhea, fatigue and possibly seizures and coma. This seriously ill stage may last from a few hours up to several months.
- Skin - damage can start to show up within a few hours after exposure and include swelling, itching, and redness of skin (like a bad sunburn). Complete healing may take several weeks to a few years depending on dose received.
- Hair - serious exposure could cause temporary hair loss

Please note, radiation sickness is not contagious so will not spread person to person. Consider storing immune-boosting supplements in your Disaster Supplies Kits to help strengthen immune system and rebuild any possible cell damage in the event you are exposed to radiation.

Nuke versus dirty bomb - A nuke creates a massive blast and dangerous radiation that could spread for hundreds of miles. A radiological dispersion device (RDD or dirty bomb) uses explosives (like dynamite) to spread low-level radioactive materials over a small, targeted area. The bomb blast itself may cause more damage than the radiation. (*see pages 112-116*)

TIPS ON SHELTERING AND SHIELDING

Some communities provide 2 types of shelters for local citizens, but not all cities have them plus you may not be able to get to one during a crisis.

- **blast shelter** - specifically constructed to offer some protection against blast pressure, initial radiation, heat, and fire (but realize it can't take a direct hit from a nuke)
- **fallout shelter** - can be any protected space that has walls and materials thick and dense enough to absorb radiation given off by fallout. (*Note: we are mainly focusing on these types of shelters in this section.*)

Basic requirements - Whether you build a shelter in advance or throw together an expedient last-minute shelter during a crisis, the area should protect you from radiation and support you for at least 2 weeks. Some basic requirements for a fallout shelter include ...

- shielding
- ventilation
- water and food
- sanitation and first aid products
- radiation monitoring devices, radio, tools, etc.

INDEX

A

- activated charcoal, first aid uses for, 21, 153
- air pollution, ozone alerts, 54
- air quality
 - improving with HEPA filter, 34, 225
 - mitigation tips, 34
- American Red Cross. *See also* Canadian Red Cross
 - about, 202
 - assistance following disasters, 136
 - business continuity information, 227
 - FEMA partner, 210
 - first aid services and programs, 146
- amputation, emergency measures, 161
- anthrax (biological agent)
 - about, 92
 - how spread, 92
 - signs and symptoms of exposure, 92-93
 - treatment, 93
- asthma attack, first aid treatment, 162
- avalanches. *See also* landslides
 - basics, 40, 41-42
 - facts and figures, 4
 - safety information, 42-44
 - types of, 40-41
 - typical victims, 41
- avian flu (bird flu). *See also* infectious diseases
 - about, 189
 - symptoms and reducing the spread of, 189, 190
 - where to get more information, 190

B

- baking soda
 - first aid uses for, 21
 - paste for insect bites or stings, 153
 - paste for rash, 193
 - paste for sea critter sting, 156
 - soak for sunburn, 167
 - use to put out small grease or oil fire, 56
- biological agents, 81. *See also* terrorism
 - about, 91-101
 - basic groups of, 91
 - how used in an attack, 91-92
 - safety information, 81, 91-101
 - after an attack, 101

Copyright © 1999-2007 by W. L. (Bill) and Janet Liebsch. All rights reserved. Unauthorized reproduction, in any manner is prohibited without Fedhealth's permission (but we're easy ~ please call!)

Published by Fedhealth • Tucson, AZ • www.fedhealth.net
Prepress by Jeremy Wesanen, U.S. Press & Graphics • www.uspress1.com
Printed by CDS Publications • www.cdspubs.com

4th Edition: December 2006 (Revised May 2007)
ISBN 978-1-930131-22-4

Library of Congress Catalog Card Number: 2006938576

ABOUT THE AUTHORS

Bill and Janet Liebsch are the founders of Fedhealth, a publishing and marketing company formed to help the public focus on preparedness and health-related issues. They consider themselves "social entrepreneurs" dedicated to developing and marketing programs that primarily benefit First Responders, schools, and volunteers. Fedhealth books and eBooks are continually updated on preparedness and safety-related topics.

DISCLAIMER

The authors of this Manual are not licensed physicians, and the enclosed suggestions should not replace the advice of trained medical staff and officials. This information is not intended as a substitute for a first aid course, but reviews basic first aid measures that could be used when professional medical assistance is delayed or temporarily unavailable due to a major disaster or crisis. All data compiled here is for informational purposes only and neither the authors nor Fedhealth can accept responsibility for any injury, loss or damage arising from the use of this information. During a time of crisis, citizens should heed the advice of local officials over the data contained in this book.