

What a family needs to know to be prepared

Public Health Emergency Guide



Published for Beaver,
Garfield, Iron, Kane &
Washington Counties

SOUTHWEST
UTAH PUBLIC
HEALTH
DEPARTMENT



PREVENT • PROMOTE • PROTECT
visit us at www.swuhealth.org

*To protect the community's health
through the promotion of wellness and
the prevention of disease.*

Dear Community Member,

One of the key pieces of the Southwest Utah Public Health Department's mission is the protection of the health and well-being of each individual citizen in our community. A large part of this is being prepared as individuals, families, neighbors and friends for any public health emergency.

For this reason, the Southwest Utah Public Health Department has prepared a simple home guide for possible public health emergencies.

We encourage you as individuals, families and groups to go through this guide and understand its contents. Our hope is that everyone in the community will feel confident and informed in their preparedness efforts.

We wish you all a healthy, safe and prosperous future.

David W. Blodgett, M.D., M.P.H.
Director/Health Officer

Table of Contents

Air Quality Page 1

Disease

- Animal Bites & Bat Exposures Page 2
- Bioterrorism Page 3
- Pandemic Influenza Page 4

Earthquakes Page 5

Extreme Weather Page 6

Flooding Page 7

Hazardous Materials Page 8

- Dirty Bomb Page 9

Additional Information

- Carbon Monoxide Page 10
- Disease Prevention Page 11
- Emergency Toilets & Disposal Page 12
- Emergency Water Page 13
- Food Safety Page 14
- Hand Washing Page 15
- Infant Care Page 16
- Shelter in Place or Evacuate Page 17

AIR QUALITY



Poor air quality can affect sensitive individuals.

Before An Emergency

To protect yourself, consider these steps:

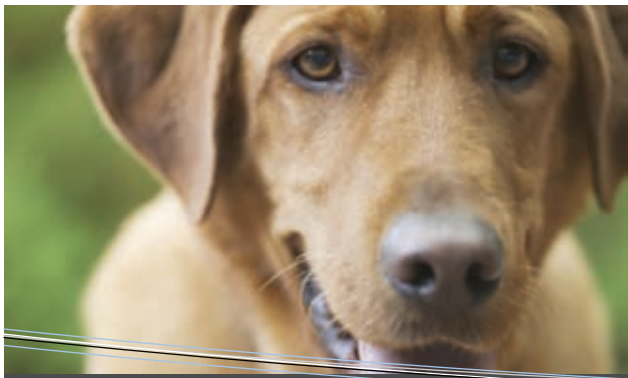
- Know the current air quality conditions by visiting www.airquality.utah.gov
- Have appropriate medication on hand to treat symptoms caused by poor air quality.

Those with diabetes, heart disease, lung problems, older adults and children are more likely to be harmed by unhealthy air.

During Poor Air Quality Conditions

- Reduce time spent outdoors doing activities that make you breathe harder than normal.
- Sensitive individuals, children, older adults and those with heart disease, lung condition or diabetes, should avoid heavy exertion outdoors on “Red Air” days.
- Reduce driving.
- Seek medical attention if breathing problems or chest pain occur.

ANIMAL BITES/BAT EXPOSURES



Before An Emergency

- Keep vaccinations for you and your pets current.
- Keep your pets from roaming and report stray animals to Animal Control through law enforcement.
- Stay away from animals that are sick, unfamiliar or acting strangely.

- Do not touch or handle any wild animals including raccoons, skunks and bats.
- Maintain window screens on windows and seal off openings where bats might enter your home.

If you are bitten or find a bat

- Treat the wound and call your doctor right away.
- Contact animal control for assistance in capturing the animal.
- If you find a bat in your home, contact animal control to capture it.
- Contact the Southwest Utah Public Health Department and report the animal bite or bat exposure at 435-986-2594.

BIOTERRORISM



Before An Emergency

Bioterrorism is the deliberate release of viruses, bacteria or other germs used to cause illness or death by those who want to further their own beliefs. Biological agents can be spread by air, water or in food. They can be extremely difficult to detect and may not cause illness for several hours to several days. Protect yourself by:

- Using good health practices and keeping your family's vaccinations current.
- Know how to evacuate your home or shelter in an emergency.
- Be prepared for emergencies in general - have a family communication plan, a 72-hour kit and an emergency AM/FM radio.

During an Emergency

- Report unusual activity to the proper authorities (suspicious activity, or unusual plant or animal death).
- Wash your hands.
- Do not go to the hospital unless you are sick or injured.

After a Bioterrorism Emergency

1. Listen to the media for updates.
2. Seek medical attention only if you are sick.
3. If medication is available to prevent illness, you will be given information as to how to get it for you and your family.



PANDEMIC INFLUENZA



Before An Emergency

Pandemic Influenza is a new strain of influenza that spreads throughout the world. Humans will have no immunity, and vaccines may not be available. To protect yourself, follow these steps:

- **Get informed.** Visit these websites: www.pandemicflu.gov and www.swuhealth.org
- **Learn the basics for taking care of a sick family member.**
- **Plan for an extended stay at home (i.e. 2 weeks).** Store extra food, water, and medicines, such as pain relievers and fever reducers.

During an Influenza Outbreak

- Practice good hygiene. Cover your coughs and sneezes. Avoid touching eyes, nose or mouth. Wash your hands regularly.
- Avoid crowds. Stay at least 6 feet away from anyone who is ill.
- If you get sick, act responsibly to prevent the spread. Remain at home and stay at least 6 feet away from those who are well.
- Stay informed and support what is going on in the community. **Following health department recommendations will help lessen the spread of the disease.**

After the Outbreak is Over

- Prepare for a second wave. Identify gaps in your initial preparation and make adjustments. Restock supplies.
- Find out what your local health department is asking community members to do. **Listen to the local radio and read local papers.**

EARTHQUAKES



Before An Emergency

Prevention of earthquakes is clearly impossible, but much can be done to prevent the consequences. Harm caused by collapse of structures and helping in the rescue and recovery efforts are a major cause of injury and death. To protect yourself, follow these steps:

- Minimize potential hazards. Anchor items that may fall.
- Identify safe places indoors and outdoors to take cover.
- Properly store emergency water, food and non-cotton blankets.
- Know how and when to shut off the gas to your home.
- Visit www.questargas.com

During an Earthquake

- Drop to the ground, take cover under a sturdy table or other piece of furniture and hold on until the shaking stops.

After the Earthquake

- Check your immediate area for fires and gas leaks.
- Do not touch downed electrical lines or objects that are touching them.
- Locate and care for the injured.
- Follow good sanitary practices (see *Disease Prevention section*).



To minimize potential hazards before an earthquake, anchor items that may fall. These include items such as bookshelves, appliances, water heater, filing cabinets, etc.

EXTREME WEATHER



Extreme cold can lead to severe illness such as hypothermia. Air temperature and wind speed are two factors important in determining dangerous conditions. During extreme heat, physical exertion, inadequate drinking of water and no way to keep cool, may lead to heat-related illnesses such as hyperthermia and heat stroke. Untreated, both of these conditions can lead to death or serious injury.

Before An Emergency

- Be aware of weather conditions.
- Be prepared with safe, alternate light, cooling and heat sources.
- Know food safety fundamentals (see *Food Safety* section).
- Know the symptoms of heat and cold-related illnesses and how to treat them.
- Young children and elderly are more susceptible to heat and cold-related illnesses.
- Store plenty of extra water.

During Extreme Weather

- Store food at proper temperatures.
- Choose appropriate for the weather:

Heat

- Wear a hat and lightweight, light-colored, loose-fitting, cotton clothing.
- Increase fluid intake (16-32 ounces of cool fluids each hour). **Don't wait until you're thirsty to drink!**
- Reduce activity in the heat.
- Protect from sun burn. Wear SPF 15 or higher sunscreen.
- Never leave children, elderly or pets alone in a vehicle.

Cold

- Safely maintain the temperature in your home. Avoid carbon monoxide poisoning, (see *Carbon Monoxide* section).
- Use non-cotton blankets and wear extra clothing.

After An Emergency

- Check food for correct temperature.
- Take people who are overwhelmed by heat to their doctor or the hospital.

FLOODING



Before An Emergency

Flooding can happen after heavy rains or winter thaws. Since 1950, there have been 31 flood-related deaths in Utah. Most deaths have been due to flash floods. Floods have enough power to change the course of rivers and destroy houses.

- Know where floods are likely to occur in your area and know your escape routes.
- Store emergency food and water above anticipated flood levels.

During a Flood

- Avoid low lying areas and seek higher ground.
- Be aware of weather conditions and heed flood warnings immediately.
- Never attempt to walk, run or drive through flood water. If your vehicle stalls, leave it immediately and seek higher ground.

After the Flood

- Maintain good hygiene. Wash hands often with soap and clean water.
- Keep food safe and assure proper disposal of human waste.
- If you have a well that has been flooded, it should be disinfected and tested after flood waters recede.
- When water recedes, there may be mold in homes. Check with the health department for specific clean up information.

HAZARDOUS MATERIALS



Before An Emergency

A chemical emergency occurs when a chemical has been released and has the potential for harming human health or the environment. Chemical releases can be unintentional such as an industrial accident; or intentional, such as a terrorist attack.

- Know the chemical risks in your neighborhood.
- Know how to evacuate your home or shelter in place in case of an emergency.
- Use and dispose of household chemicals and pesticides properly.

During a Chemical Emergency

- Report significant or life threatening chemical spills by calling 9-1-1.
- Follow civil authorities direction when spills affect your neighborhood.

After the Chemical Emergency

- Contact the health department if you have questions about clean up activities in your area.

Report significant or life threatening chemical spills by calling

9-1-1



DIRTY BOMB



Before An Emergency

A dirty bomb is an explosive attached to some form of radiation. It is not an atomic bomb. It is designed to spread radioactive contamination and fear. The major danger from a dirty bomb is from the explosives in it. However, radioactive dust can spread from the blast site so you should know how to protect yourself. Contamination from radioactive materials is not immediately life threatening.

- Understand that the major risk is from the initial blast.
- Have an evacuation plan.
- Know how to shelter in place.

During an Emergency

- Stay indoors if possible.
- Go to the hospital only if you are injured or sick.

After the Emergency

- Wash your hands and face or take a shower if you were in the blast area.
- Eat or drink food or water only from clean, undamaged containers.
- Listen to the news media.
- Avoid contaminated areas.



Listen to the local radio and read local newspapers to find out what experts are recommending that you do in this type of emergency.

CARBON MONOXIDE



Carbon Monoxide (CO) is an odorless, colorless gas that can cause illness and death.

Before An Emergency

Carbon Monoxide is produced by burning any type of fuel (wood, propane, gasoline, diesel, natural gas, charcoal briquettes, kerosene, white gas). CO can build up in enclosed or partially enclosed spaces. People in these spaces can be poisoned and die from breathing CO.

Know How to Recognize CO Poisoning

- Symptoms of CO poisoning include: headache, dizziness, weakness, nausea, vomiting, chest pain and confusion.
- Some people who are poisoned with CO do not notice any symptoms.
- Have at least one working carbon monoxide detector in your home. Check the detector's batteries twice each year.

During & After An Emergency

- Gasoline-powered generators, camp stoves, non-electric heaters, charcoal grills and other fuel-powered devices should never be used inside a home, basement, garage or camper even if the doors or windows are open.
- Never run a gasoline-powered generator close to a home or basement window/door.
- Check your CO detector to make sure it is operational.
- Never use a gas range or oven to heat a home.
- Never leave the motor running in a vehicle parked in an enclosed or partially enclosed space, such as a garage.
- If conditions are too hot or too cold, seek shelter with friends or at a community shelter.
- If CO poisoning is suspected, seek medical care right away.

DISEASE PREVENTION



Germs, such as cold or influenza viruses, are often spread when a person has physical contact with an ill person (shaking their hand, or being close by when they cough or sneeze).

Did You Know...

Germs can also be spread when a well person touches an object that was previously contaminated by an ill person, and then touches their eyes, nose or mouth.

- Some germs can live for 2 hours or more on hard surfaces like doorknobs, desks and tables.
- A good disinfectant that can be used to kill germs on hard surfaces is a mixture of 1 part bleach in 10 parts water.
- Spray or wipe bleach disinfectant on surfaces and then allow to air dry.

- **DO NOT drink or use bleach solution to clean your hands, feet, mouth or other body parts.** This can cause serious chemical burns. Bleach should always be kept away from children.

When You Are Sick

- Stay home, get plenty of rest and check with a health care provider as needed.
- Keep your distance from others to protect them from getting sick.
- Cover your mouth and nose with a tissue when you cough or sneeze.
- If you don't have a tissue, cough or sneeze into your upper sleeve, not your hands.
- Wash your hands after coughing or sneezing. Wash with soap and water or with alcohol-based hand cleaner.

Common Symptoms of Influenza Include:

- Cough
- Sore Throat
- Nausea, Vomiting and Diarrhea
- Fever
- Chills
- Headache
- Muscle Aches
- Runny or Stuffy Nose
- Extreme Tiredness

EMERGENCY TOILETS & SEWAGE DISPOSAL



In extreme emergencies, there may be no water pressure to run your toilet, or the sewage system may not work. During these times, it may be necessary to use a temporary toilet to collect human waste.

Prepare Yourself Now

Store a supply of heavy-duty plastic bags, twist ties and toilet paper for emergency conditions and a designated 5-gallon bucket with a lid.

Emergency Toilets *Five-gallon bucket for outside use*

- Locate the toilet at least 100 feet away from food preparation, eating areas, water sources or campsites.
- Line the inside of a 5-gallon pail or other sturdy container with two heavy-duty plastic bags.
- Place kitty litter or sawdust into the bottom of the bags.
- Keep bucket covered when toilet is not in use to keep out insects and other pests.

If there is no water pressure inside of your house, a regular toilet can be used in the same manner and may be less stressful for some people.

- Flush the toilet to make sure the toilet water tank is empty.
- Remove all of the toilet bowl water and line the toilet bowl with two heavy-duty plastic bags.
- Replace the plastic bags on a daily basis, or more often if needed.
- When the water is back on, do not flush the toilet until the bags are removed.

Never attempt to flush plastic bags down the toilet.

The bagged waste should be securely tied and placed in a protected container for temporary storage until the waste can properly be disposed of.

Always wash your hands with soap and water or alcohol based hand sanitizer after using the bathroom or handling human waste.



EMERGENCY WATER



Before An Emergency

Store emergency water correctly. Be prepared and consider these steps:

- Use clean, sturdy, food-grade plastic containers. Store containers in a cool place and out of sunlight.
- Water to be stored should come from an approved public drinking water system with chlorine residual.
- Store at least a 2-week supply, 2 gallons per day per person (this would be 28 gallons per person for 2 weeks).
- Properly stored water should not need replacement unless it becomes contaminated in some way or the container begins to leak.
- Keep standing water away from wells to prevent contamination. Wells and springs should be sealed and protected from surface water.

During and After an Emergency

Drink, wash and cook only with safe, clean water.

- Use only clean containers for transporting water and use separate water containers for hand washing, cooking, and drinking.
- If you think your drinking water is contaminated, then disinfect it using one of the following methods:

- **Boiling** Heat the water to a rolling boil for one full minute.
- **Laundry Bleach** “Regular” bleach, (**not the scented versions**) may be used to disinfect water in accordance with the following table:

Amount of Bleach Needed to Purify Water		
<i>Quantity of Water</i>	<i>Clear Water</i>	<i>Cloudy Water</i>
1 quart	2 drops	4 drops
1 gallon	8 drops	16 drops
5 gallons	½ teaspoon	1 teaspoon
50 gallons	½ ounce	1 ounce

After the bleach solution is mixed, it should sit undisturbed for 30 minutes before being used.

Other safe sources of water in the home include: water from the water heater, ice cubes, canned fruit, vegetable juice and other canned goods.

FOOD SAFETY



Food that is high in proteins and moisture (meats, dairy, eggs, casseroles, gravy, etc.) must be kept at safe temperatures. When disasters strike, electricity may go out and appliances won't operate.

Before An Emergency

- Store food that has a long storage life and requires little or no cooking, water or refrigeration.
- Keep some ice packs or a block of ice stored in your freezer and keep camp coolers on hand.
- Store food properly, a cool (40-60 F), dry place, free from rodents and insects, at least 6 inches off the floor.
- Purchase a food thermometer. Hot foods should stay hotter than 140 F and cold foods should be kept below 40 F.

During an Emergency

- Ensure that all food is stored at a safe temperature.
- Wash your hands with soap and water before preparing or serving food.
- When the power is out, try to keep appliance doors closed as much as possible. This will retain the cold temperature in the fridge and freezer for a longer period of time.

After an Emergency

- Perishable foods that still contain ice crystals may be refrozen or used.
- Perishable food that has been at an unsafe temperature for more than two hours should be discarded. “When in doubt, throw it out.”

Keep hot food at temperatures above 140 degrees Fahrenheit. Cold foods should be kept below 40 degrees Fahrenheit.

HANDWASHING



One of the best things you can do to prevent the spread of disease during emergencies or at any time is to wash your hands regularly.

When To Wash Your Hands

- Before preparing or eating food.
- After using the bathroom.
- After changing diapers or cleaning a child who has used the bathroom.
- Before and after attending to those who are sick.
- After handling human, animal or other wastes or garbage.
- After blowing your nose, coughing or sneezing.
- Before and after treating wounds.

How To Wash Your Hands

- Wet hands with clean running water. Use warm water if it is available.
- Apply soap and scrub all surfaces.
- Scrub for at least 20 seconds.
- Rinse well.
- Dry with clean paper towel or air dry.
- Use a paper towel to turn off the faucet and open the door.

If soap and water are not available, use alcohol-based hand sanitizer.

Apply product generously to hands and rub over all surfaces of hands and fingers until hands are dry.



INFANT CARE



Breastfeeding is the ideal way to feed a baby in any situation, but especially in an emergency. It provides the best nutrition, antibodies to prevent disease and simplifies sanitation, (no bottles to wash or worries about clean water). It can comfort both mom and baby in a stressful situation, and make the baby feel more secure.

Before An Emergency

- Breastfeed your baby daily to maintain your milk supply.
- Maintain at least a 2-week supply of diapers, wipes, blankets and other baby needs.
- Store a two-week supply of the foods you normally feed your baby.
- Have a 7-day supply of clean water and formula in the event that you need formula to feed your baby.

During An Emergency

- Be sure you and your baby stay together. Do not let anyone separate you.
- Look for other mothers or for breastfeeding experts for help if needed.
- You may be able to produce breast milk again if you have recently stopped.
- Check at the shelter or with the health department for available resources.

After An Emergency

- Continue to breastfeed your baby for optimal nutrition, comfort and good health.

SHELTER IN PLACE OR EVACUATE



Shelter In Place

Some disasters/emergencies are best dealt with by remaining inside the building where you are at the time that the emergency happens. Depending on the type of emergency and instructions from public authorities, consider doing the following:

- Quickly bring family and pets inside.
- Close and lock all doors and windows to the outside.
- Turn off heating & air conditioning systems.
- Close all fireplace dampers and any other place that air can come in from outside.
- Go to an above ground room with the fewest windows and doors.
- Turn on the radio. Keep a telephone close at hand, but do not use it unless there is a serious emergency.
- Remain inside until you are told by authorities that it is safe to leave.

Evacuation

Some kinds of emergencies may make staying put dangerous. In such cases, it may be safer for you to leave the immediate area.

- Listen to your radio or television broadcast instructions about evacuation orders for your area.
- If you are told to evacuate, bring your 72-hour kit and any needed medications.
- Turn off lights (**do not turn off your refrigerator or freezer**) and close and lock your windows and doors.
- Check on neighbors to make sure they have been notified.
- Take only one car to the evacuation site and close your car windows and air vents. Turn off the car heater or air conditioner.
- Do not try to pick your children up at school unless instructed to do so.

Websites

Southwest Utah Public Health Department	www.swuhealth.org
American Red Cross	www.redcross.org
Centers for Disease Control	www.cdc.gov www.bt.cdc.gov
Department of Agriculture and Food Safety	www.fsis.usda.gov
Environmental Protection Agency	www.epa.gov
Federal Emergency Management Agency	www.fema.gov
International Lactation Consultant Association	www.ilca.org
Ready	www.ready.gov
Safe Kids Worldwide	www.safekids.org
Pandemic Flu (Federal)	www.pandemicflu.gov
Pandemic Flu (State)	www.pandemicflu.utah.gov

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