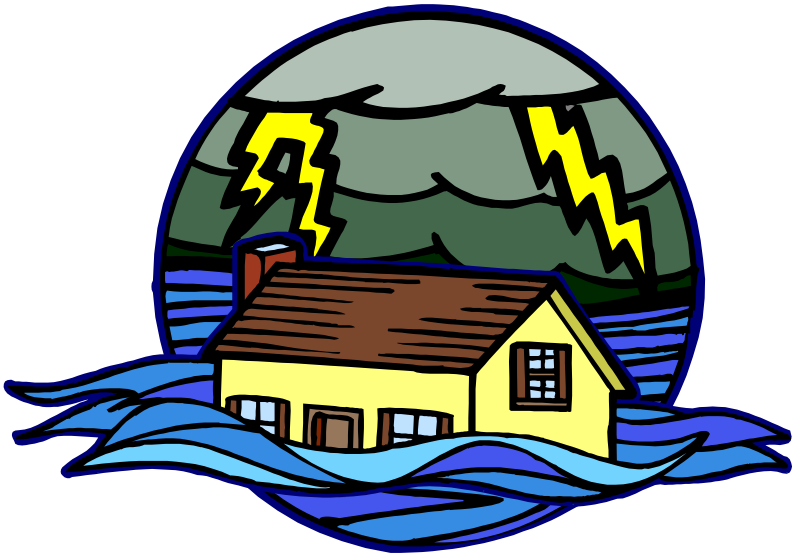
Severe Weather Preparedness Guide

SOUTH DAKOTA OFFICE OF EMERGENCY MANAGEMENT

April 21—25, 2014

Are You Prepared for a Disaster?

Disasters can strike quickly and without warning. You could be anywhere - at work, at school, or in a car. What would you do if basic services - water, gas, electricity or telephones were cut off? Families can cope with disasters by preparing in advance and working together as a team. Knowing what to do is your best defense against the burden of a disaster. Being prepared and understanding what to do can reduce fear, anxiety, and losses that accompany disasters. You should know how to respond to severe weather or any disaster that could occur in your area. Each disaster has lasting effects - people are seriously injured, some are killed, and property damage runs into the billions of dollars.



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Statewide Tornado Drill

The National Weather Service will be conducting a state wide tornado drill on Wednesday, April 23, 2014.

Test Watch
10:00 am CDT/
9:00 am MDT

Test Warning
10:15 am CDT/
9:15 am MDT

Statement Issued (Test Over)
10:30 AM CDT/
9:30 AM MDT

Severe/Hazardous Weather Terms

Watch - A National Weather Service (NWS) product indicating that conditions are favorable for the development of a particular severe weather event. A watch is normally issued for several hours and indicates a need for planning, preparation and an increased awareness of changing weather conditions. Typical watches include:

- Tornado Watch
- Severe Thunderstorm Watch
- Flood Watch

Warning - A product issued by NWS local offices indicating that a particular weather hazard is either imminent or occurring. A warning indicates the need to take action to protect life. Typical warnings include:

- Tornado Warning
- Severe Thunderstorm Warning
- Flash Flood/Flood Warning
- Excessive Heat Warning

Cold Air Funnels - A funnel cloud or rarely a small relatively week tornado that can develop from a small shower or thunderstorm when the air aloft is unusually cold. Much less violent than other types of tornadoes.

Downburst - Intense gust of wind or downdraft that exits the base of a thunderstorm and spreads out horizontally at the earth's surface as a strong wind which often causes damage.

Flash Flood - A flood that can occur very rapidly. Flash floods occur as the result of very heavy rainfall in a short period of time, generally over a relatively small area.

Flood - The condition that occurs when water overflows the natural or artificial confines of a stream or body of water or accumulates by drainage over low lying areas.

Funnel Cloud - Violently rotating column of air that is not in contact with the ground. A tornado passes through the funnel cloud state during it development and dissipation.

Gust Front - The leading edge of a mass of cool gusty air that flows from the base of a thunderstorm and spreads along the ground in advance of the thunderstorm.

Lightning - Generally, any and all of the various forms of electrical discharge produced by thunderstorms.

Severe Thunderstorm - A thunderstorm producing a tornado, damaging winds of 58 mph or higher and/or hail 3/4" in diameter or larger.

Straight Line Winds - Thunderstorm winds that may produce damage which typically exhibits a lack of a rotational damage pattern. Straight line winds are most often produced by a thunderstorm gust front originating from a downburst.

Thunderstorm - In general, a local storm produced by a cumulonimbus cloud and accompanied by lightning and thunder, usually with strong wind gusts, heavy rain and sometimes hail.

Tornado - Violently rotating column of air in contact with the ground, descending from the base of a severe thunderstorm. They are usually funnel-shaped, with a narrow end nearest the ground.

For an extensive list of weather terms, visit *http://www.erh.noaa.gov/er/box/glossary.htm*

Enhanced Fujita Scale (EF Scale) - A scale of wind damage intensity in which speeds are inferred from an analysis of wind damage:

F0 (weak)- 40-72mph, light damage

F1 (weak)- 73-112mph, moderate damage

F2 (strong)- 113-157mph, considerate damage

F3 (strong)- 158-206mph, severe damage

F4 (strong)- 207-260mph, devastating damage

F5 (strong)- 261-318mph, (rare) incredible damage.

Emergency Supply Kit

Emergency supply kits should be individually tailored to meet the basic survival needs of your family for three days to a week. Most families prefer to store their emergency supplies in one location that is relatively safe, yet easily accessible if evacuation is required. Items may be stored in a 32-gallon trash can, suitcase, duffle bag, footlocker or individual pack.

Emergency Needs

- Battery powered radio
- Water (1 gallon per person/per day)
- First aid kit and manual
- Sleeping bags and blankets
- Utility knife
- Emergency candles
- Manual can opener
- "Special needs" items for family members (infant formula, eye glasses, medications, etc.)
- Waterproof/windproof matches
- Non-perishable foods*
- Flashlight
- Extra clothing
- Whistle

Sanitation Kit

- Plastic bucket with tightly fitted lid
- Plastic trash bags and ties
- Disinfectant
- Improvised toilet seat
- Paper cups and plates
- Plastic utensils
- Personal toiletries
- Baby supplies
- Toilet paper
- Aluminum foil
- Paper towels
- Personal hygienic needs
- Soap

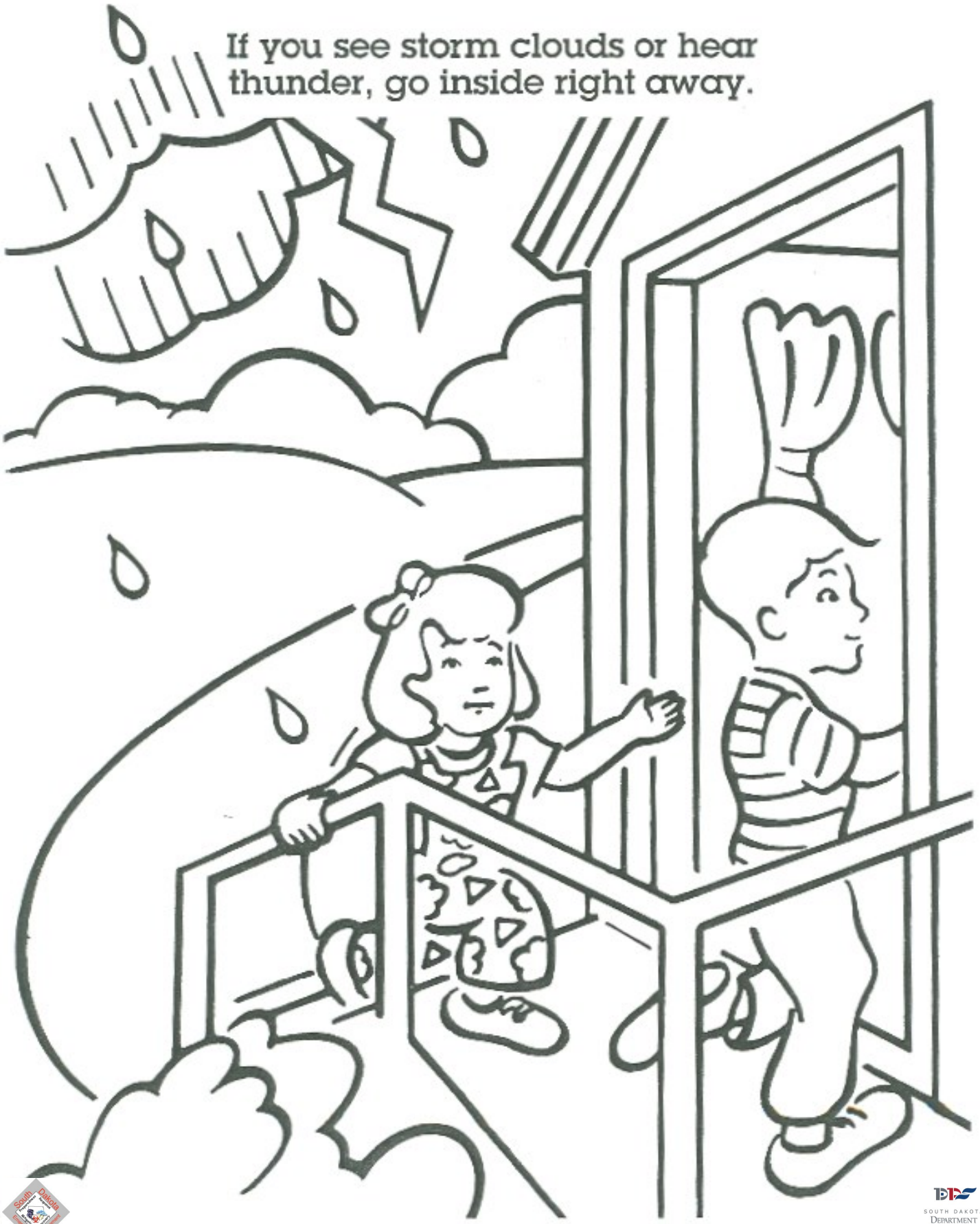
Other Emergency Needs

- Pen and paper
- Money
- Work gloves
- Basic tools
- Toys, books, puzzles, games
- Extra house keys and car keys
- List of contact names and phone numbers
- Hardwired phone (not cordless)

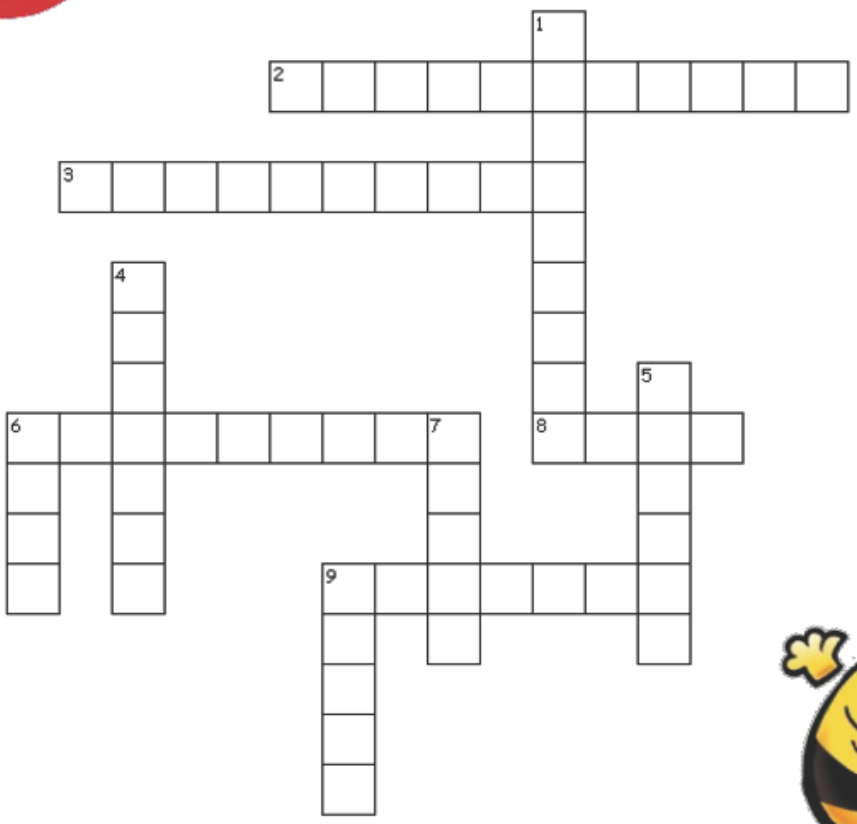
Copies of All Legal Papers

- Marriage license
- House mortgage
- Property ownership
- Automotive ownership
- Wills
- Jewelry appraisals
- Drivers licenses
- Insurance policies
- Bank accounts

*Suggested non-perishable food items: ready-to-eat goods in unbreakable containers, canned meats, juice, fruits & vegetables, powdered milk, infant care foods, crackers, peanut butter, freeze-dried, and dehydrated goods.


If you see storm clouds or hear thunder, go inside right away.

Buzz wants to test your bReady knowledge. Use the clues to find out what items belong in your bReady Kit.



Across

2. This is full of helpful items to fix cuts and scrapes
3. Helps you find your way when it's dark
6. Opens your food that comes in metal containers
8. Keeps you squeaky clean
9. Blowing into this will help rescue workers find you

Down

1. Powers things like your flashlight or radio
4. Keeps you warm when you sleep at night
5. Food that stays good for a long time is _____ food
6. Wearing this will protect you from the cold weather
7. Gives you information about things like weather
9. Drinking this will help when you are thirsty

bReadySD.com

Being Prepared: What You Should Do

STEP 1 : Get a Kit of Emergency Supplies

Be prepared to improvise and use what you have on hand to make it on your own for at least three days, maybe longer. While there are many things that might make you more comfortable, think first about fresh water, food and clean air. Consider putting together two kits. In one, put everything needed to stay where you are and make it on your own. The other should be a lightweight, smaller version you can take with you if you have to get away.

You'll need a gallon of water per person per day. Include in the kits canned and dried foods that are easy to store and prepare. If you live in a cold weather climate, include warm clothes and sleeping bag for each member of the family.

Start now by gathering basic emergency supplies - a flashlight, a battery-powered radio, a NOAA weather radio with tone alert, extra batteries, a first aid kit, prescription medicines and other special things your family may need.

www.bReadySD.com

- **bsafe.**
- **binformed.**
- **bprepared.**

Step 2: Make a Plan for What You Will Do in an Emergency

Be prepared to assess the situation. Use common sense and whatever you have on hand to take care of yourself and your loved ones. Depending on your circumstances, the first important decision is deciding whether to stay or go. You should understand and plan for both possibilities.

Develop a Family Communications Plan: Your family may not be together when disaster strikes, so plan how you will contact one another and review what you will do in different situations. Consider a plan where each family member calls or e-mails the same friend or relative in the event of an emergency. It may be easier to make a long distance phone call than to call across town, so an out-of-state contact may be in a better position to communicate among separated family members. You may have trouble getting through, or the phone system may be down altogether, but be patient.

Staying Put: There are circumstances when staying put, a process known as "shelter-in-place" can be a matter of survival. Quickly bring your family and pets inside. Take your emergency supplies and go into the room you have designated. Watch TV, listen to the radio or check the internet for instructions.

Getting Away: Plan in advance how you will assemble your family and anticipate where you will go. Choose several destinations in different directions so you have options in an emergency. If you have a car, keep at least a half tank of gas in it at all times. Become familiar with alternate routes as well as other means of transportation out of your area. If you do not have a car, plan how you will leave if you have to. Take your emergency supply kit and lock the door behind you. Listen to the radio for updates.

At Work and School: Think about the places where your family spends time: school, work and other places you frequently go. Talk to your children's school and your employer, be sure you have an emergency preparedness plan. Review and practice it with your employees. A community working together during an emergency also makes sense. Talk to your neighbors about how you can work together.

Step 3: Be Informed About What Might Happen

Ask your local emergency management office which disaster could strike your community. They will know your community's risks. You may be aware of some of them and others may surprise you. Also, ask for any information that might help you prepare and possibly reduce the risks you face.

Floods

Floods are one of the most common hazards in the United States. Flood affects can be local, impacting a neighborhood or community, or very large, affecting entire river basins and multiple states.

However, all floods are not alike. Some floods develop slowly, sometimes over a period of days. But flash floods can develop quickly, sometimes in just a few minutes and without any visible signs of rain. Flash floods often have a dangerous wall of roaring water that carries rock, mud, and other debris and can sweep away most things in its path. Overland flooding occurs outside a defined river or stream, such as when a levee is breached, but still can be destructive. Flooding can also occur when a dam breaks, producing effects similar to flash floods.

Be aware of flood hazards no matter where you live, but especially if you live in a low-lying area, near water or downstream from a dam. Even very small streams, gullies, creeks, culverts, dry streambeds, or low-lying ground that appears harmless in dry weather can flood. Your county emergency manager or floodplain administrator can tell you if you live in a flood-prone area.

Before a Flood

- Avoid building in a floodplain unless you elevate and reinforce your home.
- Elevate the furnace, water heater, and electric panel if susceptible to flooding.
- Install "check valves" in sewer traps to prevent flood water from backing up into the drains of your home.
- Construct barriers (levees, beams, floodwalls) to stop floodwater from entering the building.
- Seal walls in basements with waterproofing compounds to avoid seepage.

During a flood

- Listen to the radio or television for information
- Be aware that flash floods can occur. If there is any possibility of a flash flood, move immediately to higher ground. Do not wait for instructions to move.
- Be aware of streams, drainage channels, canyons, and other areas known to flood suddenly. Flash floods can occur in these areas with or without such typical warnings as rain clouds or heavy rain.

If you must prepare to evacuate, you should do the following:

- Secure your home. If you have time, bring in outdoor furniture. Move essential items to an upper floor.
- Turn off utilities at the main switches or valves if instructed to do so by emergency officials. Disconnect electrical appliances. Do not touch electrical equipment if you are wet or standing in water.

If you have to leave your home, remember these evacuations tips:

- Do not walk through moving water. Six inches of moving water can make you fall. If you have to walk in water, walk where the water is not moving. Use a stick to check the firmness of the ground in front of you.
- Do not drive into flooded areas. If floodwaters rise around your car, abandon the car and move to higher ground if you can do so safely. You and the vehicle can be quickly washed away.

After a Flood

- Listen for news reports to learn whether the community's water supply is safe to drink.
- Avoid floodwaters; water may be contaminated by oil, gasoline, or raw sewage. Water may also be electrically charged from underground or downed power lines.
- Avoid moving water.
- Be aware of areas where floodwaters have receded. Roads may have weakened and could collapse under the weight of a car.
- Stay away from downed power lines, and report them to the power company.
- Return home only when authorities indicate it's safe.
- Stay out of any building if it's surrounded by floodwaters. Use extreme caution when entering buildings; there may be hidden damage, particularly in foundations.
- Service damaged septic tanks, cesspools, pits, and leaching systems as soon as possible. Damaged sewage systems are serious health hazards.
- Clean and disinfect everything that became wet. Mud left from floodwater can contain sewage and chemicals.

Thunderstorms/Lightning

Thunderstorms produce tornadoes, lightning, strong winds, flash flooding, and hail. Thunderstorms affect relatively small areas when compared with hurricanes and winter storms. Despite their small size, all thunderstorms are dangerous! The typical thunderstorm is 15 miles in diameter and lasts an average of 30 minutes. Of the estimated thunderstorms that occur each year in the United States, about 10 percent are classified as severe.

The basic ingredients used to make a thunderstorm are moisture, unstable air, and lift. You need moisture to form clouds and rain. You need unstable air that is relatively warm that will rise rapidly. Finally, you need lift. This can form from fronts, sea breezes or mountains. Every thunderstorm produces lightning, which kills more people each year than tornadoes.

Thunderstorms are most likely to occur in the spring and summer months and during the afternoon and evening hours, but they can occur year-round and at all hours of the day or night. Thunder is caused by lightning. When a lightning bolt travels from the cloud to the ground it actually opens up a little hole in the air, called a channel. Once light is gone the air collapses back in and creates a sound wave that we hear as thunder. The reason we see lightning before we hear thunder is because light travels faster than sound! You can estimate how many miles away a storm is by counting the number of seconds between the flash of lightning and the clap of thunder. Of course, get safe shelter first, before you take the time to count the seconds!

While thunder won't hurt you - lightning will! So it's important to pay attention when you hear thunder. Thunderstorms happen in every state in the U.S., and every thunderstorm has lightning. Lightning can strike people and buildings and is very dangerous. Nearly 1,800 thunderstorms are happening at any moment around the world.

Before Thunderstorms

- Remove dead or rotting trees and branches that could fall and cause injury or damage.
- Remember the 30/30 lightning safety rule: Go indoors if after seeing lightning you cannot count to 30 seconds before hearing thunder. Stay indoors for 30 minutes after hearing the last clap of thunder.

During a Thunderstorm

- If you are in a forest, seek shelter in a low area under a thick growth of small trees.
- If you are in an open area, go to a low place such as a ravine or valley. Be alert for flash floods.
- If you are in open water, get to land and find shelter immediately.
- If you are anywhere you feel your hair stand on its end (which indicates lightning is about to strike), squat low to the ground on the balls of your feet. Place your hands over your ears and your head between your knees. Make yourself the smallest target possible and minimize your contact.

Lightning Myth vs. Fact

Myth: If it's not raining, there's no danger from lightning.

Fact: Lightning often strikes outside of heavy rain and may occur as far as 10 miles away from any rainfall. This is especially true in the western United States where thunderstorms sometimes produce very little rain.

Myth: The rubber soles of shoes or rubber tires on a car will protect you from being struck by lightning.

Fact: Rubber-soled shoes and rubber tires provide NO protection from lightning. The steel frame of a hard-topped vehicle provides increased protection if you are not touching metal. Although you may be injured if lightning strikes your car, you are much safer inside a vehicle than outside.

Myth: People struck by lightning carry an electrical charge and should not be touched.

Fact: Lightning-strike victims carry no electrical charge and should be attended to immediately.

Myth: "Heat lightning" occurs after very hot summer days and poses no threat.

Fact: "Heat lightning" is a term used to describe lightning from a thunderstorm too far away for thunder to be heard.

Myth: Lightning never strikes the same place twice.

Fact: Lightning often strikes the same place repeatedly, especially if it's a tall, pointy isolated object.

Tornadoes

Although tornadoes occur in many parts of the world, these destructive forces of nature are found most frequently in the United States east of the Rocky Mountains during the spring and summer months. In an average year, 800 tornadoes are reported nation-wide, resulting in 80 deaths and over 1,500 injuries. A tornado is defined as a violently rotating column of air extending from a thunderstorm to the ground. The most violent tornadoes are capable of tremendous destruction with wind speeds of 250 mph or more. Damage paths can be in excess of one mile wide and 50 miles long. Once a tornado in Broken Bow, Oklahoma, carried a motel sign 30 miles and dropped it in Arkansas.

A category F3 tornado roams across the South Dakota prairie. The winds of a storm this powerful can top 200 miles an hour.

Provided by National Geographic Photographer Carsten Peter

What Causes Tornadoes?

Thunderstorms develop in warm, moist air in advance of eastward-moving cold fronts. These thunderstorms often produce large hail, strong winds, and tornadoes. Tornadoes in the winter and early spring are often associated with strong, frontal systems that form in the Central States and move east. Occasionally, large outbreaks of tornadoes occur with this type of weather pattern. Several states may be affected by numerous severe thunderstorms and tornadoes. Tornadoes occasionally accompany tropical storms and hurricanes that move over land. Tornadoes are most commonly to the right and ahead of the storm path as it comes onshore.

Tornado Variations

Some tornadoes may form during the early stages of rapidly developing thunderstorms. This type of tornado is most common along the front range of the Rocky Mountains, the Plains, and the Western States. Tornadoes may appear nearly transparent until dust and debris are picked up. Occasionally, two or more tornadoes may occur at the same time. Before thunderstorms develop, a change in wind direction and an increase in wind speed with increasing height creates an invisible, horizontal spinning effect in the lower atmosphere. Raising air within the thunderstorm updraft tilts the rotating air from horizontal to vertical. An area of rotation, 2-6 miles wide, now extends through much of the storm. Most strong and violent tornadoes form within this area of strong rotation.

Frequency of Tornadoes

Tornadoes can occur at any time of the year. Months of peak tornado occurrence in South Dakota are from May-July. In some states, a secondary tornado maximum occurs in the fall. Tornadoes are most likely to occur between 3 and 9pm but have been known to occur at all hours of the day or night. The average tornado moves from southwest to north-east, but tornadoes have been known to move in any direction. The average forward speed is 30 mph but may vary from nearly stationary to 70 mph. The total number of tornadoes is probably higher than indicated in the western states, sparse population reduces the number reported.

Tornado Myth vs. Fact

Myth: Areas near rivers, lakes, and mountains are safe from tornadoes.

Fact: No place is safe from tornadoes. In the late 1980's, a tornado swept through Yellowstone National Park leaving a path of destruction up and down a 10,000 ft. mountain.

Myth: The low pressure with a tornado causes buildings to "explode" as the tornado passes over-head.

Fact: Violent winds and debris slamming into buildings cause most structural damage.

Myth: Windows should be opened before a tornado approaches to equalize pressure and minimize damage.

Fact: Opening windows allows damaging winds to enter the structure. Leave the windows alone; instead, immediately go to a safe area.

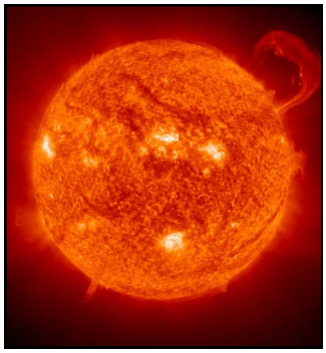
Extreme Heat

Extreme heat is considered when temperatures hover 10 degrees or more above the average high temperature for the region and last for several weeks. Humid or muggy conditions, which add to the discomfort of high temperatures, occur when a "dome" of high atmospheric pressure traps hazy, damp air near the ground. Excessively dry and hot conditions can provoke dust storms and low visibility. Droughts occur when a long period passes without substantial rainfall. A heat wave combined with a drought is a very dangerous situation.

Heat-related deaths and illness are preventable yet annually many people succumb to extreme heat. Historically, from 1999-2010, excessive heat exposure caused 7,415 deaths in the United States. During this period, more people in this country died from extreme heat than from hurricanes, lightning, tornadoes, floods, and earthquakes combined. In 2001, 300 deaths were caused by excessive heat.

People suffer heat-related illness when their bodies are unable to compensate and properly cool themselves. The body normally cools by sweating, but under some conditions, sweating isn't enough. In such cases, a person's body temperature rises rapidly. Very high body temperatures may damage the brain or other vital organs. Several factors affect the body's ability to cool itself during extremely hot weather. When the humidity is high, sweat will not evaporate as quickly, preventing the body from releasing heat quickly. Other conditions related to risk include age, obesity, fever, dehydration, heart disease, mental illness, poor circulation, sunburn, and prescription drug and alcohol use.

The elderly, the very young, and people with mental illness and chronic diseases are at highest risk. However, even young and healthy individuals can succumb to heat if they participate in strenuous physical activities during hot weather. Air-conditioning is the number one protective factor against heat-related illness and death. If a home is not air-conditioned, people can reduce their risks for heat-related illness by spending time in public facilities that are air-conditioned. Summertime activity, whether on the playing field or the construction site, must be balanced with measures that aid the body's cooling mechanisms and prevent heat-related illness.



To protect your health when temperatures are extremely high, remember to keep cool and use common sense. The following tips are important:

- Drink plenty of fluids.
- Replace salt and minerals: sweating removes salt and minerals from the body. These are necessary for your body and must be replaced. If you must exercise, drink two to four glasses of cool, non-alcoholic fluids each hour.
- Wear appropriate clothing and sunscreen. Choose lightweight, light-colored, loose-fitting clothing.
- Schedule outdoor activities carefully.
- Pace yourself. Don't over exert yourself.
- Stay cool indoors.
- Do not leave children in cars.

The National Weather Service has developed two products that let the public know when excessive heat is occurring:

- Excessive Heat Warning: A warning is issued when a daytime heat index of 105 degrees Fahrenheit is expected to last more than three hours a day for two consecutive days or when the daytime heat index is expected to exceed 115 degrees Fahrenheit for any length of time.
- Heat Advisory: An advisory is issued when the daytime heat index is expected to reach 105 degrees Fahrenheit or above (but less than 115 degrees) for less than three hours and the nightly lows are expected to remain above 80 degrees for two consecutive days.

Motorist Safety Tips

Disaster driving is one part preparedness, one part common sense, and one part learning from experience - your own, and others. After almost every disaster, search and rescue teams find victims who might have survived if they had known whether to stay or abandon their cars. The following are safety tips for drivers in different emergencies. This information can easily be kept in the glove compartment of your car. In any situation, the most important rule to follow is to not panic.

Flood: Get out of the Car

Never attempt to drive through water on a road. Water can be deeper than it appears and water levels can rise very quickly. Most cars will float dangerously for at least a short while. A car can be buoyed by floodwaters and then swept downstream during a flood. Floodwaters also can erode roadways, and a missing section of road - even a missing bridge - will not be visible with water running over the area. Wade through floodwaters only if the water is not flowing rapidly and only in water no higher than the knees. If a car stalls in floodwater, get out quickly and move to higher ground. The floodwaters may still be rising, and the car could be swept away at any moment.

Tornado: Get out of the Car

A car is the least safe place to be during a tornado. When a warning is issued, do not try to leave the area by car. If you are in a car, leave it and find shelter in a building. If a tornado approaches and there are no safe structures nearby, lie flat in a ditch or other ground depression with your arms over your head.

Summer Heat: Get out of a Parked Car

During hot weather, heat build-up in a closed or nearly closed car can occur quickly and intensely. Children and pets can die from heat stroke in a matter of minutes when left in a closed car. **Never leave anyone in a parked car during periods of high summer heat.**

Supplies to Keep in the Car

Cars should be equipped with supplies which could be useful in any emergency. Depending on location, climate of the area, personal requirements and other variables, the supplies in the kit might include (but are not limited to) the following:

- Blanket/sleeping bags
- Booster cables and tools
- Bottled water
- Canned fruits and nuts
- Manual can opener
- First aid kit
- Flashlight
- Rain gear and extra clothes
- Necessary medication

Developing Emergency

Stay Informed

In times of developing emergencies, stay tuned to a local radio station.

Never carry gasoline in your vehicle unless it's in the car's gas tank!

Animals in Disasters

Disasters disrupt and affect everything in its path, including pets, livestock, and wildlife.

Pets in Disaster

Pets need to be included in your household disaster plan since they depend on you for their safety and well being. It's important to consider and prepare for your pets before disaster strikes. Consider the following:

- If you must evacuate, do not leave pets behind - there is a chance they may not survive or get lost before you return.
- With the exception of service animals, pets are not typically permitted in emergency shelters.
- Find out before a disaster which local hotels and motels allow pets and where pet boarding facilities are located. Be sure to include some outside your local area.
- Only some animal shelters will provide care for pets during emergency and disaster situations.
- Be sure you have a secure pet carrier or leash for your pet - they may need to be restrained during tense emergency situations.
- Assemble a disaster kit for your pet which includes food, water, medications, veterinary records, litter box, food dishes, and other supplies that may not be available at a later time, and an information sheet with pet's name, medical history, and behavior problems.

Large Animals in Disaster

If you have large animals, such as horses or cattle on your property, be sure to prepare before a disaster.

- Evacuate animals whenever possible. Map out primary and secondary routes in advance.
- Evacuation destinations should be stocked with, or ready to obtain, food, water, veterinary care, and handling equipment.
- Vehicles and trailers needed for transporting and supporting each type of animal should be available along with experienced handlers and drivers.
- In case evacuation is not possible, animal owners must decide whether to move large animals to shelter or turn them outside. This decision should be based on the disaster type, quality and location of shelter, and the risks of turning them outside.
- All animals should have some form of identification.

Animals After Disaster

Wild or stray domestic animals can pose a danger during or after many types of disasters. Remember, most animals are disoriented and displaced, too. Do not corner an animal.

If an animal bites you, seek immediate medical attention, certain animals may carry rabies. Although the virus is rare, care should be taken to avoid contact with stray animals and rodents.

NOAA Weather Radio

Newspaper, radio, and television are all good sources of weather data. However, if you want the most accurate and timely information, go to the source itself. You can listen to a weather radio designed to pick up broadcasts of the National Oceanic and Atmospheric Administration (NOAA).

NOAA Weather Radio (NWR) provides continuous broadcasts of the latest weather information directly from the National Weather Service offices and these broadcasts are tailored for your specific area. A number of commercial manufacturers offer weather radios designed specifically for receiving NOAA's high frequency transmissions. NOAA Weather Radio broadcasts can usually be heard as far as 40 miles from the transmission site. The broadcast range depends upon a number of factors including signal strength, terrain, quality of your weather radio, and current weather conditions. With the implementation of the Emergency Alert System (EAS) and Specific Area Message Encoding (SAME), it is now possible to program certain weather radios to sound an alert for only the counties desired in a specific NWR's broadcast area. The owner of a NWR with SAME technology would program the desired county into the radio.

It will then alert the user only to weather emergencies for the specific county programmed. Older NWR receivers without SAME capability would alert for emergencies anywhere within the coverage area of the NWR transmitter, even though the emergency could be well away from the listener. The SAME technology can eliminate this appearance of over-warning. Under a January 1975 White House policy statement, NOAA Weather Radio was designated the sole government-operated radio system to provide direct warning into private homes for both natural disasters and nuclear attack. This concept has been expanded to include warnings for all hazardous conditions that pose a threat to life and safety, both at a local and national level. As a result, NOAA Weather Radio is being better integrated with other National Weather Service systems to provide state and local emergency managers and other warning providers better access to local weather forecast offices, allowing hazard warning of all types to be broadcast on NOAA Weather Radio within seconds.

Wildfires

Wildfires often begin unnoticed. They spread quickly, igniting brush, trees, and homes. Reduce your risk by preparing now - before wildfire strikes. Meet with your family to decide what to do and where to go if wildfires threaten your area. People start most wildfires….find out how you can promote and practice wildfire safety.

- Contact your local fire department, health department or forestry office for information on fire laws.
- Make sure that fire vehicles can get to your home. Clearly mark all driveway entrances and display your name and address.
- Report hazardous conditions that could cause a wildfire.
- Post fire emergency telephone numbers.
- Plan several escape routes away from your home - by car and by foot.
- Talk to your neighbors about wildfire safety. Plan how the neighborhood could work together after a wildfire.
- Consider how you could help neighbors who have special needs such as elderly or disabled person.
- Make plans to take care of children who may be on their own if parents can't get home.
- If you are warned that a wildfire is threatening your area, listen to your battery-operated radio for reports and evacuation information. Follow the instructions of local officials.
- Back your car into the garage or park it in an open space facing the direction of escape. Shut doors and roll up windows. Leave the key in the ignition. Close garage windows and doors, but leave them unlocked. Disconnect automatic garage door openers.
- Confine pets to one room. Make plans to care for your pets in case you must evacuate.
- Arrange temporary housing with a friend or relative.

County Emergency Managers' Contact Numbers

Aurora.....605.942.7751
Beadle.....605.353.8421
Bennett 605.685.5994
Bon Homme 605.589.4242
Brookings 605.696.8350
Brown 605.626.7122
Brule.....605.234.3433
Buffalo 605.293.3231
Butte.....605.723.0900
Campbell 605.955.3598
Charles Mix 605.384.5350
Clark.....605.532.3822
Clay.....605.677.7185
Codington 605.882.6272
Corson 605.273.4481
Custer.....605.673.8152
Davison 605.995.8640
Day 605.345.3222
Deuel.....605.874.8189
Dewey 605.848.1094
Douglas.....605.999.5682
Edmunds 605.287.4394
Fall River 605.745.7562
Faulk 605.598.6229
Grant.....605.432.4637
Gregory 605.775.2626
Haakon.....605.567.3515
Hamlin 605.783.7831
Hand.....605.853.2408
Hanson.....605.239.4218
Harding 605.375.3313
Hughes 605.773.7454
Hutchinson.....605.770.7927
Hyde 605.852.2595
Jackson 605.488.0334
Jerauld 605.539.0243
Jones 605.669.7101
Kingsbury 605.854.3711
Lake 605.256.7611
Lawrence.....605.578.2122
Lincoln 605.764.5746
Lyman 605.869.2266
Marshall.....605.448.2339
McCook 605.421.1302
McPherson 605.439.3667
Meade 605.347.7623
Mellette 605.259.3371
Miner 605.772.4533
Minnehaha 605.367.4290
Moody 605.997.3251
Pennington 605.394.2185
Perkins 605.244.5243
Potter 605.765.9405
Roberts.....605.698.3800
Sanborn.....605.796.4511
Shannon.....605.745.7562
Spink 605.472.4591
Stanley.....605.773.7454
Sully 605.258.2244
Todd.....605.429.3246
Tripp 605.842.1890
Turner 605.297.6000
Union 605.356.2351
Walworth 605.845.2500
Yankton 605.668.5289
Ziebach 605.365.5129

Tribal Emergency Managers' Contact Numbers

Cheyenne River Sioux Tribe
.....605.964.4155
Crow Creek Sioux Tribe
.....605.245.2345
Lower Brule Sioux Tribe
605.473.5561 ext. 48015
Oglala Sioux Tribe
.....605.867.8147
Rosebud Sioux Tribe
.....605.747.2381
Flandreau Santee Sioux Tribe
..... 605.997.2642x1112
Sisseton Wahpeton Oyate Tribe
.....605.742.0431
Standing Rock Sioux Tribe
.....701.854.8644
Yankton Sioux Tribe
.....605.384.5003

Internet Resources

http://www.bReadySD.com/

The South Dakota bReady campaign encourages individuals to have an emergency bReady kit, make a family emergency plan and learn more about the different threats that may affect them from natural disasters to epidemics.

http://www.redcross.org

The American Red Cross has many materials available for teachers, educators, and presenters to use to help children and families learn how to stay safe and prevent or reduce the effects of disasters or other emergencies.

http://www.fema.gov/plan/index.shtm

While most disasters cannot be avoided, the Federal Emergency Management Agency provides information on things people can do to lessen the loss of life and property damage.

http://disasterassistance.gov

DisasterAssistance provides responders, emergency managers and homeland security advisors an online capability to collaborate with other members of the disaster management community. It is also a source of general information for citizens.

http://www.sddot.com/travelers/

This page includes links to assist South Dakota travelers.

Download the South Dakota 511 Travel app to find out updated road reports courtesy of SD Dept. of Transportation and Safe Travel USA.

http://www.ready.gov/

The U.S. Department of Homeland Security has developed a website to assist citizens in learning about potential threats so that they are better prepared.

http://www.ed.gov/emergencyplan/

This website is designed to be a one-stop shop that provides school leaders with information they need to plan for any emergency, including natural disasters, violent incidents, and terrorist acts.

http://www.dhs.gov/how-do-i/prepare-my-family-disaster

Educating America's families on how best to prepare their homes for a disaster and tips for citizens on how to respond in a crisis a mission of the U.S. Department of Homeland Security.

http://www.weather.gov

The National Weather Service (NWS) provides weather, forecasts, and warnings for the entire United States.

http://www.weather.gov/os/edures.shtml

This page contains links to the National Oceanic Atmospheric Administration web sites that contain information about weather education.

Road conditions can be found on www.SafeTravelUSA.com/sd, by calling 511 or downloading the app, through radio announcements, media releases and dynamic message signs.

South Dakota
Office of
Emergency
Management

South Dakota Department of Public Safety
118 West Capitol Ave.
Pierre, SD 57501

SOUTH DAKOTA
DEPARTMENT
OF PUBLIC SAFETY

Phone: 605.773.3231
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We're on the web:
www.oem.sd.gov

The information contained in this newsletter was compiled by various agencies concerned with the safety of South Dakota citizens. The Federal Emergency Management Agency, the American Red Cross, and the National Weather Service helped make the 2014 South Dakota Severe Weather Preparedness Guide possible.

Portable Electric Generators

Portable electric generators are a good source of power for heat, light, refrigeration and cooking during electrical outages. But, if generators are improperly installed or operated, they can become deadly. Safety awareness can prevent needless deaths:

- Never operate the generator in enclosed or partially enclosed spaces, including homes, garages and basements. Generators produce high levels of carbon monoxide very quickly; a colorless, odorless, deadly gas.
- Keep the generator dry. To protect it from moisture, operate on a dry surface under an open canopy-like structure.
- Plug appliances directly into the generator. Or, use a heavy-duty, outdoor-rated extension cord that is rated in watts or amps at least equal to the sum of the connected appliance loads.
- Do not connect your generator directly to your household wiring. This can backfeed along the power lines and electrocute anyone coming in contact with them, including line workers making repairs. Connecting a generator to the main electrical supply for your house requires the services of a qualified licensed electrician.
- Make sure the generator is properly grounded.
- Do not overload the generator. A portable generator should be used only when necessary and only to power essential equipment or appliances.
- Make sure fuel for the generator is stored safely, away from living areas, in properly labeled containers and away from fuel-burning appliances.
- Turn off all appliances powered by the generator before shutting down the generator.

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DEPARTMENT
OF PUBLIC SAFETY