City of Louisville

Local Hazards & Threats

The most probable hazard threats faced by Louisville are severe weather including severe thunderstorms, tornadoes, and heavy winter storms, hazardous materials releases, and disruptions of utility services. Other threats are discussed, but these three are the most likely to occur in our area.

Winter Storm Emergency

Heavy snowfall, ice and extreme cold can immobilize an entire region. Prepare for possible isolation in your home and for power outages.
Know winter terminology used by weather forecasters and monitor the National Weather Service's NOAA and local media for current weather information and forecasts.
Prepare a home "Emergency Supply Kit".
Keep your car "winterized" and carry a "Winter Car Kit" in your car's trunk to include blankets, extra sets of dry clothing, a shovel, sand, tire chains, jumper cables, a first aid kit, a flashlight with extra batteries and a brightly colored cloth to tie to the antenna.

Thunderstorms, Lightning, Wind & Hail

Every thunderstorm produces lightning which kills more people each year than tornadoes. Heavy rain from thunderstorms may also be accompanied by flash flooding, strong winds, hail, and tornadoes. In Colorado, lightning is the most frequent storm related hazard causing deaths and serious injuries.

A National Weather Service **WATCH** is the message indicating that conditions favor the occurrence of a certain type of hazardous weather.

An NWS **WARNING** indicates that a hazardous event is occurring or is imminent in about 30 minutes to an hour. Local NWS forecast offices issue warnings on a county-by-county basis.

Lightning often strikes outside of heavy rain and may occur as far as 10 miles away from any rainfall. "Heat lightning" is actually lightning from a thunderstorm too far away for thunder to be heard. However, the storm may be moving in your direction. You are in danger from lightning if you can hear thunder.

Many strong thunderstorms produce hail that can be smaller than a pea or as large as a softball. It can cause serious injury or death. During heavy hail, stay indoors and away from windows and skylights. Pets and livestock are particularly vulnerable to hail and should be sheltered.

City of Louisville

Downbursts and straight-line winds associated with thunderstorms can produce winds 100 to 150 miles per hour, enough to flip cars, vans, and semi-trucks. The resulting damage can equal the damage of most tornadoes. If a severe thunderstorm warning is issued, take shelter the same way you would if a tornado were approaching your area. Leave structures that are susceptible to being blown over in high winds, such as a mobile home.

If you are outside without protection, crouch on the balls of your feet. Do not lie flat on the ground. The electrical build-up just before lightning strikes will cause your hair to stand on end. Make yourself the smallest target possible and minimize contact with the ground. Cover your head.

Stay away from tall things like trees, towers, fences, telephone lines, or power lines. They attract lightning. Never stand underneath a single large tree out in the open, because lightning usually strikes the highest point in an area. Stay away from metal things that lightning may strike, such as umbrellas, baseball bats, fishing rods, camping equipment, and bicycles.

Turn off the air conditioner and television, and stay off the phone until the storm is over. Lightning can cause electric appliances, including televisions and telephones, to become dangerous during a thunderstorm. Stay away from running water inside the house; avoid washing your hands or taking a bath or shower. Electricity from lightning has been known to come inside through plumbing.

Tornados

Tornados are considered to be one of nature's most violent storms. With winds that can reach 300 miles per hour and damage paths in excess of one mile, a tornado can form in a matter of seconds. Even though the tornados are rare along the Front Range and there has not been any recent property damage in Louisville, they are still a hazard that must be considered and prepared for.

Tornado Watch means that tornados are possible. Remain alert for approaching storms, watch the sky and stay tuned to NOAA Weather Radios, commercial radio, or the local news for more information.

Tornado Warning means that a tornado has been sighted or indentified by weather radar and that you should take shelter immediately.

For a tornado warning you should:
Go to the basement or lowest floor of the building.
Stay away from exterior walls, doors, and windows.
Move to interior hallways and small interior rooms (e.g., bathroom, closet, etc.).
Get under a piece of sturdy furniture if possible.
Once the storm has passed you should:
Check yourself and those around you for injuries.
Evacuate any damaged building and do not re-enter until it is declared safe.
Call 911 to report injuries in need of immediate medical attention. Do not call 911 for information or to simply report damage.

If you smell gas or hear a hissing sound indoors, open windows and leave the building.
Monitor your portable or weather radio for instructions or an official "all clear" notice. Radio stations will broadcast what to do, the location of emergency shelters, medical aid stations and the extent of damage.

Terrorism

The likelihood of an act of terrorism in Louisville is low. However, appropriate consideration and preparedness must be given to a potential incident involving biological, nuclear, incendiary, chemical and explosive weapons. The preparation and response is similar to a hazardous materials incident. Law enforcement, fire departments and health departments will coordinate response and information when a situation occurs.

Hazardous Materials Incidents

Materials that can be hazardous are a part of our lives and for most there will never be a problem. However, when certain situations they can become the dangerous. Affecting urban, suburban and rural areas, hazardous materials incidents can range from a chemical spill on a highway to groundwater contamination by naturally occurring methane gas.

Hazardous materials are substances that, because of their chemical nature, pose a potential risk to life, health or property if they are released. Hazards can exist during production, storage, transportation, use or disposal.

The City of Louisville works with the Local Emergency Planning Committees (LEPC's) for Adams and Jefferson Counties that identify industrial hazardous materials and keep the community informed of the potential risk. All companies that have hazardous chemicals must report annually to the LEPC.

What to do before a hazardous materials incident.

The City of Louisville will use several methods to warn of a hazardous materials incident.

- Emergency Notification System (sometimes referred to as "Reverse 911").
- Television and radio bulletins.
- Emergency vehicles using their public address systems.

Be prepared to evacuate.

Be prepared to shelter-in-place by having selected a room to be used as a shelter. The room to use for a hazardous material incident should be above ground, large enough to comfortably accommodate the family and pets, and have the fewest possible exterior doors and windows.

If you live near the railroad tracks, a facility that uses chemicals, or a highway used by large cargo trucks, have a prepared kit to seal the shelter room during a chemical release. The kit

City of Louisville

should include plastic sheeting, duct tape, scissors, a towel, and modeling clay or other material to stuff into cracks.

What to do during a hazardous materials incident.

- If you witness a hazardous materials accident, call 9-1-1.
- If you receive a telephone call advising of an incident, follow the instructions.
- Stay away from the incident site to minimize the risk of contamination.
- If you are caught outside during an incident, gases and mists are generally heavier than air. Go upstream; uphill and upwind of the incident location. Go at least one-half mile from the danger area; further if possible.
- If you are in a car, drive uphill and upwind from the incident. If you are stopped, seek shelter in a permanent building. If you must remain in your car, keep car windows and vents closed and shut off the air conditioner and heater.
- If told to evacuate, do so immediately.
- If authorities indicate there is enough time, close all windows, shut vents and turn off attic, heating and air conditioning fans to minimize contamination.
- If told to shelter-in-place, do so.
    - Follow all instructions given by emergency authorities.
    - Get household members and pets inside as quickly as possible.
    - Close and lock all exterior doors and windows. Close vents, fireplace dampers and as many interior doors as possible.
    - Turn off air conditioners and ventilation systems. In large buildings, building superintendents should set all ventilation systems to 100 percent recirculation so that no outside air is drawn into the building. If this is not possible, ventilation systems should be turned off.
    - Go into the pre-selected shelter room (the above-ground room with the fewest openings to the outside). Take a battery-powered radio, water, sanitary supplies, a flashlight, and the shelter kit containing plastic sheeting, duct tape, scissors, a towel, and modeling clay or other materials to stuff into cracks.
    - Close doors and windows in the room. Stuff a towel tightly under each door and tape around the sides and top of the door. Cover each window and vent in the room with a single piece of plastic sheeting, taping all around the edges of the sheeting to provide a continuous seal. If there are any cracks or holes in the

room, such as those around pipes entering a bathroom, fill them with modeling clay or other similar material.

- o Remain in the room, listening to emergency broadcasts on the radio, until authorities advise you to leave your shelter.
- o If authorities warn of the possibility of an outdoor explosion, close all drapes, curtains, and shades in the room. Stay away from windows to prevent injury from breaking glass.
- o When authorities advise people in your area to leave their shelters, open all doors and windows and turn on air conditioning and ventilation systems. These measures will flush out any chemicals that infiltrated into the building.
- o See the "Shelter" chapter for more information.
- o Schools and other public buildings may institute procedures to shelter in place. If there is a hazardous materials incident and your children are at school, you will probably not be permitted to drive to the school to pick up your children. Even if you go to the school, the doors will probably be locked to keep your children safe. Follow the directions of your local emergency officials.
- o Avoid contact with spilled liquids, airborne mists or condensed solid chemical deposits. Keep your body fully covered to provide some protection. Wear gloves, socks, shoes, pants and long sleeved shirts.
- o Do not eat or drink food or water that may have been contaminated.
- o If indoors, fill the bathtub (first sterilize it with a diluted bleach solution-one part bleach to ten parts water) and large containers with water for drinking, cooking, and dishwashing. Be prepared to turn off the main water intake valve in case authorities advise you to do so.

What to do after an incident.

- Do not return home until local authorities say it is safe.
- Upon returning home, open windows, vents and turn on fans to provide ventilation.
- A person or item that has been exposed to a hazardous chemical may be contaminated and could contaminate other people or items. If you have come in contact with or have been exposed to hazardous chemicals, you should follow decontamination instructions from authorities. (Depending on the chemical, you may be advised to take a thorough shower, or you may be advised to stay away from water and follow another procedure.)
- Seek medical treatment for unusual symptoms as soon as possible.

City of Louisville

- If medical help is not immediately available and you think you might be contaminated, remove all of your clothing and shower thoroughly (unless local authorities say the chemical is water reactive and advise you to do otherwise). Change into fresh, loose clothing and seek medical help as soon as possible.

- Place exposed clothing and shoes in tightly sealed containers. Do not allow them to contact other materials. Call local authorities to find out about proper disposal.

- Advise everyone who comes in contact with you that you may have been exposed to a toxic substance.

- Find out from authorities how to clean up your land and property.

- Report any lingering vapors or other hazards to police or fire officials.

City of Louisville

Influenza and Flu Pandemic Information

An influenza, or flu, pandemic happens when a new flu virus appears that easily spreads from person to person and around the world. Experts cannot predict when the next flu pandemic may occur, or how severe it will be, but there are several websites with valuable information regarding what you can do to prepare yourself in the event of a public health emergency.

American Red Cross on Influenza and Pandemic Flu

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Influenza, also known as the flu, is a contagious respiratory disease caused by viruses. In the United States, the seasonal flu begins every fall and ends every spring. Sometimes, a new type of flu virus may emerge to which the general public has no resistance. The lack of immunity enables the virus to spread quickly and easily from person to person impacting communities around the world in a very short time, causing serious illness and death. This kind of flu is called pandemic flu.

The exact symptoms of pandemic flu are unknown. However, the CDC notes that symptoms are expected to be similar to those of seasonal flu, which include:
Fever
Sore throat
Cough
Runny or stuffy nose
Extreme fatigue
Headache
Muscle aches and pains
Stomach problems, such as nausea, vomiting and diarrhea (more common in children)

Research suggests that it may take two to seven days to show symptoms when a person catches the flu, and the symptoms may last for up to a week. A person infected with the flu may transmit the flu for one to two days before they have symptoms, and for five to seven days after symptoms begin.

Why the concern over pandemic flu?
Pandemic flu is more serious than seasonal flu. Most people who get seasonal flu recover within a week or two and usually do not require medical treatment. Pandemic flu is different because more people who get it might not recover, even with medical treatment, and people of every age may be at risk of serious illness or death.

Who is more at risk?
The very young, the very old and the very sick are most likely to become seriously ill from any form of the flu virus.

What about a vaccine?
Unlike seasonal flu, there is no **vaccine** for pandemic flu until researchers and pharmaceutical companies are able to create one, which takes time. Even if a vaccine is developed for the

pandemic flu, it will be a challenge to manufacture and dispense the vaccine to everyone in a timely manner.

When will this happen? Can I do something now?
Scientists cannot accurately predict whether the avian influenza virus (H5N1) will cause the next human pandemic flu or when the next pandemic will occur.

The best way to protect yourself and others is to practice healthy hygiene to keep you well now and during a flu pandemic. Practicing these actions now will make them easier to do later. These actions include washing your hands, covering your cough and staying home when you are sick to slow the spread of illness.

Pandemic Flu
Scientists have informed organizations in the U.S. and abroad about the significant possibility of an influenza (flu) pandemic occurring. Even though they cannot accurately predict when the next **pandemic** will occur, or whether the **avian influenza (H5N1)** virus will cause the next human pandemic, scientists all agree that the best action the public can take now to prepare.

The World Health Organization (WHO) is constantly on the look out for the first signs of a flu pandemic. At first sign, the WHO will take immediate steps to try to contain it. Once a flu pandemic affects other countries, it will reach the United States. With the popularity of air travel, the chances of it reaching the U.S. sooner are increased.

The WHO will inform governments worldwide when a flu pandemic starts. The Centers for Disease Control and Prevention (CDC) will make announcements in the U.S. advising the best course of action – using television, radio, print and the internet throughout different phases of a pandemic.

The Red Cross works with organizations such as the WHO and CDC, and at this time has taken on the role of working with communities across the country on flu pandemic education. As an organization that connects individuals and families to important preparedness information every day, the Red Cross continues to develop flu pandemic materials that can be easily understood and applied in your community and household.

Planning for Pandemic Flu
During a flu pandemic, government officials may be required to limit community movement or impose travel restrictions to help prevent the flu virus from spreading. Things to keep in mind:
You may be asked to stay home for an extended period of time even if you are not sick.
Schools, workplaces and public gatherings such as sporting events or worship services may close temporarily.

Mass transportation may be limited.

You, your family and friends may need to rely on each other when you cannot depend on the services you normally use.
Think about how you handle stress and know your strengths. Take steps to plan for, get through and recover from a flu pandemic.

City of Louisville

Planning at Home

Store a two-week supply of food. Select foods that do not require refrigeration, preparation or cooking. Ensure that formula for infants and any child's or older person's special nutritional needs are a part of your planning.

Store a two-week supply of water, 1 gallon of water per person per day, in clean plastic containers. Avoid using containers that will decompose or break, such as milk cartons or glass bottles.

Store a supply of nonprescription drugs, such as pain relievers, cough and cold medicines, stomach remedies and anti-diarrheal medication, as well as vitamins and fluids with electrolytes (such as sports drinks).

Store health and cleaning supplies, such as bleach, tissues, a thermometer, disposable gloves, soap and alcohol-based hand sanitizers.

Ask your health care provider and health insurance company if you can get an extra supply of your regular prescription drugs and medical supplies, such as glucose monitoring supplies.

Talk with family members and loved ones about how they would be cared for if they got sick.

Planning in Your Community

Ask about plans to enable you to stay home if you are or a family member is sick.

Find out your employer's plans to keep the business open if key staff can't come to work.

Find out now about your child's school or daycare provider's plans for handling a flu pandemic.

Ask if there are plans to encourage sick children to stay home to reduce the spread of the disease.

Ask if there are plans to close during a pandemic that would require all the children to remain at home.

Finding out the answers ahead of time will have a significant impact on your plans and decisions during a flu pandemic.

Glossary of Terms

Antiviral	A medication that may be used to treat people who have been infected by a virus to help limit the impact of some symptoms and reduce the potential for serious complications. People who are in high risk groups are often given antiviral drugs because of their increased potential to develop additional health issues.
Avian Influenza (bird flu)	Commonly known as bird flu, this strain of influenza virus is naturally occurring in birds. Wild birds can carry the virus and may

	not get sick from it; however, domestic birds may become infected by the virus and often die from it.
Epidemic	The rapid spread of a disease that infects some or many people in a community or region at the same time.
H5N1	The scientific name for a subtype of the avian influenza (bird flu) virus that has spread from birds to humans. The scientific names for these subtypes are classified by different proteins on the virus. New subtypes naturally occur when the proteins change.
Influenza (flu)	A contagious respiratory illness caused by particular strains of viruses.
Influenza Pandemic	A global outbreak of the influenza disease that occurs when a new influenza virus appears in the human population. Because people have little or no immunity to the new strain, serious illness can occur, and the virus can spread easily and rapidly from person to person with no vaccine immediately available.
Isolation	The physical separation of a person suffering from an infectious or contagious disease from others in a community.
Pandemic	An outbreak of a disease that affects large numbers of throughout the world.
Pandemic Influenza	A virulent influenza (flu) caused by a new flu virus strain to which humans have not been exposed. It is more serious than a typical seasonal flu because there is no natural resistance or immunity to it and infects large numbers of people of different ages all over the world, causing serious illness and possibly death.
Quarantine	The physical separation of healthy people who have been exposed to an infectious disease, for a period of time, from those who have not been exposed.
Seasonal Flu	A contagious respiratory illness caused by influenza (flu) viruses occurring every year. It affects an average of 5 to 20 percent of the U.S. population by causing mild to severe illness, and in some instances can lead to death. Most people have some immunity, and a vaccine is available.
Social Distancing	A disease prevention strategy in which a community imposes limits on social (face-to-face) interaction to reduce exposure to and transmission of a disease. These limitations could include, but are not limited to, school and work closures, cancellation of public gatherings and closure or limited mass transportation.
Vaccine	An injection, usually of an innocuous (weak or killed) form of the

virus that stimulates the production of antibodies by the immune system to help prevent or create resistance to an infection. Vaccines are usually given as a preventive measure

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City of Louisville

For More Information

The American Red Cross
303.772.7474
www.redcross.org

Federal Emergency Management Agency
202.646.4500
www.fema.gov/areyouready

Colorado Division of Emergency Management
720.852.6600
http://www.dola.state.co.us/dem/index.html

Office of Emergency Management – Boulder County Sheriff's Department
303.441.3884
http://www.bouldercounty.org/sheriff/oem/plan.htm

University of Colorado Emergency Response Plan
http://www.colorado.edu/safety/response.html

Boulder Valley School District
303.448.1010
www.bvsd.org

Louisville Police Department
303.666.8633

Louisville Fire Protection District
303.666.6595
www.louisvillefire.com

World Health Organization (WHO)
www.who.int