

Information on what to do during hazard-specific emergencies



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HAZARDOUS MATERIAL EMERGENCIES





BIOLOGICAL SPILL

If a potentially hazardous release occurs in a laboratory or at work at Virginia Tech, follow instructions from your supervisor and site-specific plans. Trained laboratory personnel are authorized to determine appropriate emergency response measures for their areas. The following is general advice for people who might be on their own. If you discover on-campus a spill of biological materials that may be hazardous, immediately alert the calling 911. Remember to state that you are calling from campus. Make sure you report spills to your supervisor as well.

PLANNING FOR SPILLS

The consequences of any spill of biological material can be minimized by performing all work on a plastic-backed absorbent liner to absorb spills. A simple spill kit should be readily available and should include the following items:

- Chlorine bleach or some other concentrated disinfectant
- Package or roll of paper towels
- Autoclavable bag
- Latex or nitrile gloves
- · Forceps for picking up broken glass

SPILLS INSIDE A BIOLOGICAN SAFETY CABINET

- LEAVE THE CABINET TURNED ON.
- Put on gloves and a lab coat.
- Spray or wipe cabinet walls, work surfaces, and equipment with disinfectant equivalent to a 1:10 bleach solution. If necessary, flood the work surface, as well as drain pans and catch basins below the work surface, with disinfectant.
- Wait at least 20 minutes.
- · Soak up disinfectant and spill with paper towels. Drain catch basin into a container. Lift front exhaust grill and tray and wipe all surfaces. Ensure that no paper towels or solid debris are blown into the area beneath the grill.
- Autoclave all clean-up materials before disposal in the biohazardous waste container.
- Wash hands and any exposed surfaces thoroughly after the clean-up procedure.
- Inform your supervisor about the spill. For assistance call 911.





BIOLOGICAL SPILL

SMALL SPILL OUTSIDE A BIOLOGICAL SAFETY CABINET

A spill can be labeled as small if it is one that can be covered by a few paper towels.

- Put on gloves and a lab coat.
- · Cover spill with paper towels and gently apply disinfectant, proceeding from the outer edge of the spill to its center.
- Leave in place for at least 20 minutes
- Pick up the towels and discard into a biohazard container. Use forceps to pick up any broken glass and place it into a sharps container.
- Re-wipe the spill area with disinfectant.
- Remove gloves and thoroughly wash hands.
- Inform your supervisor about the spill. For assistance <u>call 911</u>.

A LARGE SPILL OF BIOHAZARDS OUTSIDE A BIOLOGICAL CABINET

A biohazardous spill (BSL2 or Higher) outside of a biological safety cabinet can be labeled as large if it is more than 500 ml.

- HOLD YOUR BREATH AND LEAVE THE ROOM IMMEDIATELY.
- Warn others to stay out of the spill area to prevent spread of contamination.
- Post a sign on the door warning others of the biological materials spill.
- · Remove any contaminated clothing and put it into a biohazard bag for later autoclaving.
- Wash hands and exposed skin.
- Inform your supervisor about the spill. For assistance call 911.
- With your supervisor's approval, put on protective clothing (lab coat, gloves, mask, eye protection, shoe covers) and assemble clean-up materials.
- Wait 30 minutes before re-entering the contaminated area to allow dissipation of aerosols.
- · Cover the spill with paper towels and gently apply disinfectant, proceeding from the outer edge of the spill to its center.
- Leave in place for at least 20 minutes.
- Collect all treated materials and discard in a biohazard container. Use forceps to pick up any broken glass and place in a sharps container.
- Re-wipe the spill area with disinfectant.
- Properly remove and dispose of gloves
- · Wash hands thoroughly.

BIOSAFETY LEVELS (BSL), AGENTS, FACTORS, AND PRACTICES

BSL	AGENTS	FACTORS	PRACTICES
1	Agents that are not associated with disease in healthy human adults	None	Standard lab and management practices, including appropriate medical surveillance programs
2	Associated with human disease which is rarely serious and for which preventive or therapeutic interventions are often available	Not known to be transmittable by inhalation No aerosol production planned	BSL-1 practices plus: • Limited access • Biohazard warning signs • Sharps precautions • Biosafety manual • Decontamination of all infectious wastes prior to disposal
2/3	Associated with human disease; special precautions required for some agents	BSL-2 facility with BSL-3 controls	BSL-2 practices plus: Controlled access Decontamination of clothing before laundering Equipment decontaminated before removed
3	Agents associated with serious or lethal human disease for which preventive or therapeutic interventions may be available (high individual risk but low community risk)	No or limited sharps allowed All work with infectious agent done in biosafety cabinet	BSL-2 practices plus: Controlled access Decontamination of clothing before laundering Equipment decontaminated before removed Disinfectant foot bath as needed
4	Agents that are likely to cause serious or lethal human disease for which preventive or therapeutic interventions are not usually available (high individual risk and high community risk)	Not allowed in VT labs	N/A





Hazardous materials are substances with dangerous ingredients — particular chemicals that can hurt the environment, cause injury, or even death. With due caution, they can be safely used in laboratory instruction, industry, agriculture, medicine, and research. But if misused and released, they can be very harmful — poisonous, flammable, combustible, explosive, corrosive, or radioactive.

There are hundreds of thousands of such products, bought and sold, stored and used in millions of facilities and in transit on American highways, railroads, waterways, and pipelines. Reported releases most often result from transportation and industrial accidents.

Students and ordinary citizens also stock cupboards with diverse household chemicals, many of which are hazardous. Considered collectively, they represent a massive storehouse. Sooner or later hazardous releases are bound to occur. In fact, they happen all the time. Most victims of chemical accidents in the U.S. are injured, not in factories, but at home, and ignorance or carelessness is the cause.

BEFORE A CHEMICAL SPILL

Buy only as much of a chemical as you think you will use. Leftover material can be shared with neighbors or donated to a business, charity, or government agency. For example, excess pesticide could be offered to a greenhouse or garden center, and theater groups often need surplus paint. Some communities have organized waste disposal days or sites where household hazardous chemicals and waste can be properly recycled.

GUIDELINES FOR BUYING AND STORING HAZARDOUS HOUSEHOLD CHEMICALS SAFETY

- Keep products containing hazardous materials in their original containers and never remove the labels unless the container is corroding. Corroding containers should be repackaged and clearly labeled.
- Never store hazardous products in food containers.
- Never mix household hazardous chemicals or waste with other products.
 Incompatibles, such as chlorine bleach and ammonia, may react, ignite, or explode.





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TYPES OF HOUSEHOLD CHEMICALS

Minimize the amount of hazardous materials you store; then properly use, recycle, and dispose of the rest. Consider:

Cleaning Products:

- Oven cleaners
- Drain cleaners
- Wood and metal cleaners and polishes
- Toilet cleaners
- Tub, tile, shower cleaners
- Bleach
- Pool chemicals

Workshop/Painting Supplies:

- · Adhesives and glues
- Furniture strippers
- Oil- or enamel-based paint
- Stains and finishes
- Paint thinners and turpentine
- Paint strippers and removers
- Photographic chemicals
- Fixatives and other solvents





BEFORE A CHEMICAL SPILL

TYPES OF HOUSEHOLD CHEMICALS

Indoor Pesticides:

- Ant sprays and baits
- Cockroach sprays and baits
- Flea repellents and shampoo
- Bug sprays
- Houseplant insecticides
- Moth repellents
- Mouse and rat poisons and baits

Automotive Products:

- Motor oil
- Fuel additives
- Carburetor and fuel injection cleaners
- Air conditioning refrigerants
- Starter fluids
- Automotive batteries
- Transmission and brake fluid
- Antifreeze

Miscellaneous

- Batteries
- Mercury thermostats or thermometers
- Fluorescent light bulbs
- Driveway sealer

Lawn and Garden Products:

- Herbicides
- Insecticides
- Fungicides/wood preservatives

Fuels:

- Propane tanks and other compressed gas cylinders
- Kerosene
- Home heating oil
- Diesel fuel
- Gas/oil mix
- Lighter fluid





BEFORE A CHEMICAL SPILL

TAKE PRECAUTIONS TO PREVENT ACCIDENTS

- Take Precautions to Prevent Accidents
- Follow the manufacturer's instructions for the proper use of the household chemical.
- Never smoke while using household chemicals.
- Never use hair spray, cleaning solutions, paint products, or pesticides near an open flame (e.g., pilot light, lighted candle, fireplace, wood burning stove).
- Although you may not be able to see or smell them, airborne particles or vapors could combust or explode.

RESPOND TO ACCIDENTS

- Clean up spills immediately. Wear gloves and eye protection.
- Use rags to clean up the spill. Allow the fumes in the rags to evaporate outdoors, then dispose of the rags by wrapping them in newspaper and placing them in a sealed plastic bag in your trash can.
- Dispose of hazardous materials correctly. Take household hazardous waste to a local collection program. Check with the county or state environmental or solid waste agency to learn if there is a household hazardous waste collection program nearby.
- Post emergency numbers by all telephones. Include 911 as well as the number for emergency medical services that you trust. In an emergency, you may not have time to look up critical numbers. The **National Poison Control Center** number is 1-800-222-1222.





DURING A CHEMICAL SPILL

IF THERE IS A DANGER OF FIRE OR EXPLOSIONS

Immediately evacuate. Do not waste time collecting items or making phone calls. Once you are outside and safely away from danger, call 911 and report the emergency:

- Your full name and the telephone number from which you are calling.
- The nature and location of the emergency.
- Your location the address or building, the room number or floor, area or department.
- What you know of the number of injured people and their injuries.

Do not hang up until the person answering the call ends the conversation. Responders may need more information. Stay upwind and away from the residence to avoid breathing fumes that may be toxic.

TOXIC POSIONING

Recognize and respond to symptoms of toxic poisoning, such as:

- Difficulty breathing.
- Irritation of the eyes, skin, throat, or respiratory tract.
- Changes in skin color.
- Headache or blurred vision.
- Dizziness.
- Clumsiness or lack of coordination.
- Cramps or diarrhea.

If someone displays symptoms of poisoning or has been exposed to a potentially toxic household chemical, find any containers of the substance that are readily available. Labels may list ingredients or have other information that could help. Call the **National Poison Control Center** at 1-800-222-1222.

- Follow the emergency operator or dispatcher's first-aid instructions carefully. The advice on labels may be out-of-date or inappropriate.
- Do not try remedies by mouth unless advised to do so by a medical professional. Discard clothing that may have been contaminated. Some chemicals may not wash out completely.





DURING A CHEMICAL SPILL

HAZARDOUS SPILLS ON-CAMPUS

- Radiation Safety: 8:00 AM to 5:00 PM, call 540-231-5364; after hours, call 911.
- **Hazardous Material Safety**: 8:00 AM to 5:00 PM, call 540-231-2982 or 540-231-8758; after hours, call 911.
- **Biological Safety**: 8:00 AM to 5:00 PM, call 540-231-5864 or 540-231-3361; after hours, call 911.

For more information, contact **Environmental Health and Safety** at 540-231-3600.

CHEMICAL SPILL AT WORK

Note: This guide focuses on spills of household chemicals. In the event of a chemical spill in the course of work at Virginia Tech, the following general guidelines are to be followed, but consult your Department or Environmental Health and Safety at 540-231-3600 to learn about procedures that may be more specific or detailed. Individuals who cause a spill are responsible for prompt and proper clean-up. It is also their responsibility to have spill control and personal protective equipment appropriate for the chemicals being handled readily available.

- Immediately alert area occupants and supervisor, and evacuate the area, if necessary.
- If there is a fire or medical attention is needed, call 911.
- Attend to any people who may be contaminated. Contaminated clothing must be removed immediately and the skin flushed with water for no less than fifteen minutes. Clothing must be laundered before reuse.
- If a volatile, flammable material is spilled, immediately warn everyone, control sources of ignition, and ventilate the area.
- Don personal protective equipment, as appropriate to the hazards. Refer to the Material Safety Data Sheet (MSDS) or other references for information.
- Consider the need for respiratory protection. The use of a respirator or self-contained breathing apparatus requires specialized training and medical surveillance. Never enter a contaminated atmosphere without protection or use a respirator without training. If respiratory protection is needed and no trained personnel are available, call 911. If respiratory protection is used, be sure there is another person outside the spill area in communication, in case of an emergency.





DURING A CHEMICAL SPILL

CHEMICAL SPILL AT WORK

Category	Size	Response	Treatment Materials
Small	Up to 300 cc	chemical treatment or absorption	neutralization or absorption spill kit
Medium	300 cc - 5 liters	absorption	absorption spill kit
Large	more than 5 liters	contact EHS 540-231- 2982	outside help

- Protect floor drains or other means of environmental release. Spill socks and absorbents may be placed around drains, as needed. Contain and clean up the spill according to the table above.
- Loose spill control materials should be distributed over the entire spill area, working from the outside, circling to the inside. This reduces the chance of splash or spread of the spilled chemical.
- Bulk absorbents and many spill pillows do not work with hydrofluoric acid. Powersorb (by 3M) products and their equivalent will handle hydrofluoric acid. Specialized hydrofluoric acid kits also are available.
- Many neutralizers for acids or bases have a color change indicator to show when neutralization is complete.





DURING A CHEMICAL SPILL

CHEMICAL SPILL AT WORK

When spilled materials have been absorbed, use brush and scoop to place materials in an appropriate container. Polyethylene bags may be used for small spills. Fivegallon pails or 20-gallon drums with polyethylene liners may be appropriate for larger quantities. Complete a hazardous waste sticker, identifying the material as "Spill Debris" involving XYZ Chemical, and affix onto the container. Spill-control materials will probably need to be disposed of as hazardous waste. Contact your department or **Environmental Health and Safety** at 540-231-3600 for advice on storage and packaging for disposal. Decontaminate the surface where the spill occurred using a mild detergent and water, when appropriate. Report all spills to your supervisor or the Principal Investigator.

AFTER A CHEMICAL SPILL

Return to the spill site only after authorities advise that it is safe. Recognize and respond to symptoms of toxic poisoning, such as:

- · Difficulty breathing.
- Irritation of the eyes, skin, throat, or respiratory tract.
- Changes in skin color.
- Headache or blurred vision.
- Dizziness.
- · Clumsiness or lack of coordination.
- Cramps or diarrhea.

If someone displays symptoms of poisoning or has been exposed to a potentially toxic household chemical, find any containers of the substance that are readily available. Labels may list ingredients or have other information that could help. Call the **National Poison Control Center** at 1-800-222-1222. Follow the emergency operator or dispatcher's first-aid instructions carefully. The advice on labels may be out-of-date or inappropriate. Do not try remedies by mouth unless advised to do so by a medical professional. Discard clothing that may have been contaminated. Some chemicals may not wash out completely.





GAS LEAK

If a vapor, fume, or gas leak enters your work place and you cannot determine the source:

- Leave the area immediately. See advice on evacuation.
- Post a "DO NOT ENTER" sign.
- Call 911 or Virginia Tech Facilities Services at 540-231-4300.





RADIOACTIVE MATERIAL INCIDENT

An accident at a research or medical facility that uses radiological materials or from a nuclear detonation (e.g., a terrorist's "dirty bomb") can cause harmful exposure to radiation. The resulting contamination can range from minor to life threatening, depending on the kind of material, the intensity of exposure, and the quality of emergency response.

In many ways, radiological releases resemble chemical spills. They are rarely deadly. Exposure to a lethal dose would require very large amounts of radioactive material at close range. Nevertheless, increased radiation can persist in the environment for years or even centuries at levels that can be very harmful. The time required for radioactive materials to decay and become inert varies widely.

In the event of body or skin contamination or any spill that you cannot readily manage, call 911 immediately.

REPORT THE INCIDENT

If you discover a radioactive release on-campus, immediately alert the **Virginia Tech Police Department** by calling 911. If a potentially hazardous release occurs in a laboratory or at work at Virginia Tech, follow instructions from your supervisor and site-specific plans. Trained laboratory personnel are authorized to determine appropriate emergency response measures for their areas. The following is general advice for people who might be on their own.

In labs or at work at Virginia Tech, report all releases of radioactive material to your supervisor.

SMALL SPILL CLEAN-UP

People who are not authorized to work with radioactive materials should not attempt to clean up a spill. Radioactive materials workers should consult their department for detailed procedures about how to clean up a spill or to perform decontamination..





RADIOACTIVE MATERIAL INCIDENT

SKIN AND BODY CONTAMINATION

- Remove contaminated clothing and seal it in a plastic bag. Put the plastic bag where others will not touch it, and keep it until authorities tell you what to do with it.
- Call 911.
- If possible, note the original meter reading and location of contamination.
- Wash skin with mild soap and lukewarm water for 2-3 minutes. Do not use hot water or harm the skin. Avoid abrasives, organic solvents, and highly alkaline soaps.
- Repeat washing until contamination is gone or until contamination cannot be reduced further without harm to the skin.
- Note the final count rate, and report the results to medical authorities.

MAJOR SPILL OR CONTAMINATION IN YOUR FACILITY AT VIRGINIA TECH

- Warn people who are near the spill. Block off the area, and keep bystanders away.
- Call 911.
- If possible and only with appropriate training, contain the spill.
- Assemble and survey all people who may have come in contact with the contamination or entered the contaminated area.
- Follow instructions from medical authorities.

EXPLOSION OF A RADIOACTIVE DEVICE OR "DIRTY BOMB"

If you are outside and there is an explosion or if your building has been damaged and authorities warn of a radiation release, cover your nose and mouth with a cloth to avoid breathing radioactive dust or smoke, and quickly go to a building that is stable, with walls and windows intact.

If you are already inside and your building is undamaged (walls and windows intact), stay where you are. Once the initial blast is over, radioactive materials can be spread in smoke and debris in the air. Once you are inside:

- Close and lock all doors and windows. Close fireplace dampers.
- Turn off fans, air conditioners, and forced-air heating units that bring in fresh air from the outside. Only use units to re-circulate air that is already in the building.
- If possible, bring pets inside.
- Stay near the center of the building, preferably an interior room. If there is a basement, go there.

If you are in a car when the incident happens. Close the windows and turn off the air conditioner, heater, and vents. Cover your nose and mouth with a cloth to avoid breathing radioactive dust or smoke. If you are close to your home, office, or a public building, go there immediately and go inside quickly. If you cannot get to your home or another building safely, pull over to the side of the road and stop in the safest place possible. If it is a hot or sunny day, try to stop under a bridge or in a shady spot. Turn off the engine and listen to the radio for instructions. Stay in the car until you are told it is safe to get back on the road.



INCIDENT



IF YOU THINK YOU HAVE BEEN EXPOSED TO RADIATION

- As soon as possible once you are inside, take off your outer layer of clothing, and seal it in a plastic bag. Removing outer clothes may get rid of up to 90% of radioactive dust. Put the cloth you used to cover your mouth in the bag, too.
- Put the plastic bag where others will not touch it, and keep it until authorities tell you what to do with it.
- Shower or wash with soap and water. Be sure to wash your hair. Washing will remove any remaining dust.
- If pets may have been exposed, wash them with soap and water, too.

Check broadcast news as it becomes available. Remember: To reduce your risks of exposure to radiation, think about **time**, **distance**, **and shielding**.

Time: Minimizing the length of time that you are exposed will reduce your risk of injury.

Distance: The farther you are away from the source of radiation (spill, blast, or fallout), the lower your exposure. Doubling the distance decreases your exposure by a factor of four.

Shielding: A barrier between yourself and radioactive materials can reduce your exposure. Depending on the type of radioactivity, effective shielding could be as thin as a piece of paper (for alpha radiation) or as thick as a lead-lined wall (for gamma radiation). In general, the denser, thicker, and heavier the shielding, the better.



FACILITIES EMERGENCIES





Follow these procedures to help assure your safety:

- Evacuate the building quickly and calmly. For example, be sure to identify more than one way to exit each building. If the nearest exit is blocked, you'll need another way out.
- If things are falling off bookshelves or from the ceiling, take refuge under a sturdy table or desk.
- If there is a fire, stay low to the floor and exit the building quickly.
- If you are trapped in debris, tap on a pipe or wall so that rescuers can hear where you are.
- · Help others escape the building and move to your designated assembly area, a safe distance away.
- Keep streets and walkways clear for emergency vehicles and responders.
- Do not attempt to rescue people who are inside a collapsed or compromised building unless you have received specific training to do so. Wait for emergency personnel to arrive.





Lines for delivering electricity are vulnerable to damage from lightning, floods, fires, heavy snow, high winds, downed trees, or other disaster debris. If the damage is bad enough, electrical service stops and so, too, do services that depend on it, including most of the ways people stay warm or cool, keep and prepare food, and get gas or spending money. Most blackouts are no worse than a minor inconvenience, but they can become dangerous, especially in winter. The biggest blackout in U.S. history occurred on August 14, 2003, when 50 million people had to do without power.

POWER OUTAGES ON CAMPUS

Campus-wide power outages are extremely rare. They are usually limited to a building or two and last less than five minutes. Preparation is most important in those even rarer occasions when a blackout lasts for more than a couple of hours. If an outage occurs on-campus during normal business hours (8 a.m. to 5 p.m.), Monday thru Friday, please report via one of these <u>Division of Campus Planning</u>, <u>Infrastructure</u>, and <u>Facilities channels</u>.

If the outage is after hours, call the <u>Virginia Tech Police Department</u> at 540-231-6411.

Note that some equipment on campus is designed to work even during a power outage:

- Corded telephones (cordless phones rely on a power supply)
- Emergency lighting designed to illuminate exit pathways
- Security card systems
- Building fire alarm systems
- Specially marked receptacles connected to an emergency generator
- Equipment supported by uninterruptable power supplies (UPS) systems (temporarily on battery backup)

In most buildings only the alarm systems and emergency lighting are connected to a backup generator. During a blackout these systems may experience a brief (less than 10-second) interruption as power is switched to an emergency generator or when power to the building is restored.

Remember, elevators usually do not work during a power outage.





BEFORE A POWER OUTAGE

As in any emergency, you are more likely to stay safe and comfortable if you're ready with a plan, an emergency survival kit, and up-to-date information. In anticipation of an electrical outage in particular:

- Keep a non-cordless telephone in your home. It is likely to work even when the power is out.
- Remember that equipment such as ATMS may not work, so always have sufficient cash on hand for at least a couple of days.
- Be sure your plan includes backup power for anyone in your home who depends on electric-powered, life-sustaining equipment.
- Keep on hand at least a two-day supply of ready-to-eat foods (meals and snacks with no cooking or cooling required), as well as water, a battery-powered or hand-crank radio, extra flashlights, and batteries.
- Use a thermometer to confirm that your refrigerator maintains a temperature of 40° F or lower. A digital quick-response thermometer may be handy, too, if refrigeration is lost for more than a couple of hours, to see if chilled foods are still cold enough to use safely.
- Keep your car's gas tank at least half full. If your home loses heat or cooling for an extended period, you may need to evacuate, and pumps at gas stations won't work without electricity.
- Monitor local news. Power companies often issue an advance warning if, as in a severe cold or heat wave, the demand for electricity may exceed the supply. They may, for example, announce a schedule of rolling blackouts. They can turn off electricity to selected areas to save power on the grid as a whole. Each blackout typically lasts for about an hour; then the power is restored in that area and another area is turned off. Hospitals, airport control towers, police stations, and fire departments are often exempt from these rolling blackouts. They can happen at any time of day and may affect the same area more than once a day.

To receive information automatically, sign up for **VT Alerts** on your phone and desktop. Register on-line or call 540-231-HELP (4357). For the latest information from Virginia Tech:

- Visit the Virginia Tech Status Page.
- Call the Campus Weather Hotline at 540-231-6668.

Individuals on-campus who use a medically prescribed life-sustaining device should register with the **Virginia Tech Electric Service (VTES)** so they can be reached more quickly in a power outage. Call 540-231-6437.





BEFORE A POWER OUTAGE

PREPARE YOUR HOME

- Be ready to keep perishables safely chilled without an electric refrigerator.
- Most food and medications that require refrigeration will remain safe for use in a refrigerator that has lost power for as much as two or even four hours, if the door is kept closed.
- If there is sufficient warning, fill jugs with water and freeze them to add to the time a refrigerator or freezer will maintain low temperatures.
- Consider moving food to a cooler with extra ice. Inexpensive foam coolers work well.
- Use high-quality surge protectors for your electronic devices. Back up computer
 files and operating systems. Consider buying extra batteries and a power
 converter if you use a laptop or notebook computer. Turn off all computers,
 monitors, printers, copiers, scanners, and other electronic devices when they are
 not in use.
- If you have an electric garage door opener, find out where the manual release lever is located, and learn how to operate it. If you are planning to use a portable generator for backup power, have it installed by a trained, qualified electrician. Be sure that the main circuit breaker is OFF and locked out prior to starting the generator. This will help protect utility workers from possible electrocution.

DURING A POWER OUTAGE

IF THERE IS A BLAKOUT ON-CAMPUS

In most buildings only the alarm systems and emergency lighting are connected to a backup generator. These systems may experience a brief (less than 10-second) interruption as power is switched to an emergency generator or when power to the building is restored. Elevators usually will not function during a power outage.





DURING A POWER OUTAGE

GENERAL STEPS TO TAKE

Take actions first to preserve human and animal health and safety. Only while they remain secure, preserve property or research.

Remain calm and stay where you are unless there is an imminent threat to your safety (e.g. a fire). Since most power outages last less than 5 minutes, it may be best to remain in place, rather than attempt to evacuate the building. If you are in an unlit area, proceed with caution to an area that has emergency lighting. The backlighting on your cell phone may help you navigate. If you are trapped in an elevator, stay calm. Dial 911 to alert public safety officers of your location. Persons with disabilities should dial 911 for mobility assistance.

Eliminate unnecessary travel, especially by car. Traffic lights will be out and roads will be congested. Keep clear of power lines. Check with local authorities to be sure your water is safe.

In hot weather, stay cool and drink plenty of fluids to prevent heat-related illness. In cold weather, wear layers of clothing, which help to keep in body heat.

TO REPORT AN OUTAGE

If the outage is in a campus building during normal business hours, contact one of these Division of Campus Planning, Infrastructure, and Facilities channels or the Virginia Tech Electric Service Business Office (540-231-6437, Option 1).

- If power fails in a campus building after hours, call the Virginia Tech Police Department at 540-231-6411.
- If a power outage occurs off-campus, call the local utility company.
- Do not call 911 just to report an outage or to get more information.

PROTECT ELECTRICAL EQUIPMENT AND APPLIANCES

To avoid damage from any surge when the power is restored, turn off and unplug non-essential electrical devices, especially voltage-sensitive equipment like computers. Leave one light turned on to let you know when the power comes back on. Keep the doors to refrigerators and freezers closed as much as possible to help them stay cold. To prevent carbon monoxide poisoning, use generators, pressure washers, grills, and similar items outdoors only.





DURING A POWER OUTAGE

KEEP YOUR FOOD SAFE

- Keep non-perishable food in a dry, cool spot and keep it covered at all times.
- Keep refrigerator and freezer doors closed as much as possible. An unopened refrigerator will keep foods cold for about 4 hours.
- First use perishable food from the refrigerator, then use food from the freezer. A full freezer will keep the temperature for about 48 hours (24 hours if it is half full), if the door remains closed.
- Use your non-perishable foods and staples after using food from the refrigerator and freezer.
- If it looks like the power outage will continue more than a couple of days, pack milk, other dairy products, meat, fish, eggs, gravy, and spoilable leftovers into a cooler surrounded by ice. Inexpensive, foam coolers work well.
- Use a food thermometer to check the temperature of chilled food right before you cook or eat it. Throw away any food that has a temperature of more than 40 degrees Fahrenheit.





DURING A POWER OUTAGE

SAFE WATER

Use only bottled, boiled, or treated water until your supply is tested and found safe. If you use bottled water, be sure it came from a safe source. If you do not know that the water came from a safe source, you should boil or treat it before you use it. Check health department advisories on the safety of tap water. When power goes out, water purification systems may not be functioning fully. Boiling or treating water in your area may be recommended. Do not use potentially contaminated water to wash dishes, brush teeth, wash and prepare food, wash hands, make ice, or make baby formula. If possible, use baby formula that does not need to have water added. You can use an alcohol-based hand sanitizer to wash hands. Boiling water, when practical, is the preferred way to kill harmful bacteria and parasites. Bringing water to a rolling boil for 1 minute will kill most organisms. When boiling water is not practical, you can treat water with chlorine tablets, iodine tablets, or unscented household chlorine bleach (5.25% sodium hypochlorite):

- If you use chlorine tablets or iodine tablets, follow the directions that come with the tablets.
- If you use household chlorine bleach, add 1/8 teaspoon (~0.75 mL) of bleach per gallon of water if the water is clear. For cloudy water, add 1/4 teaspoon (~1.50 mL) of bleach per gallon. Mix the solution thoroughly and let it stand for about 30 minutes before using it.
- Note: Treating water with chlorine tablets, iodine tablets, or liquid bleach will not kill parasitic organisms.

Use a bleach solution to rinse water containers before reusing them. Use water storage tanks and other types of containers with caution. For example, fire truck storage tanks and previously used cans or bottles may be contaminated with microbes or chemicals. Do not rely on untested devices for decontaminating water.

CLASSROOM AND ASSEMBLY SPACES

- Faculty and reception personnel should instruct the class/assembly to remain in place and await the restoration of power.
- If power does not return in 15 minutes, an orderly evacuation should be attempted. Dial 911 for assistance in conducting an evacuation.





DURING A POWER OUTAGE

RESIDENCE HALLS

- DO NOT use candles or other open flames for lighting or heat sources.
- Turn off any appliances, including stoves, in order to prevent them restarting unattended when power is restored.

LABRATORIES

- Once human and animal health and safety are secure, ensure experiments, equipment, and machinery are stabilized and safe.
- Cease work, close containers in fume hoods and close the sash. In most buildings, the fume hoods are not connected to generator power. Do not use hazardous materials, or enter areas that require mechanical ventilation during the outage.
- Avoid opening environmental room, refrigerator, or freezer doors until power is restored.
- Maintain a log of equipment that must be reset, restarted, or that requires special attention following an outage.
- For an extended power outage, consider consolidating materials in freezers and using dry ice. Order additional dry ice supplies immediately.
- Equipment that runs unattended should be programmed to shut down safely and not restart when power returns.
- After the outage, reset or restart equipment. Check air flow in hoods.





DURING A POWER OUTAGE

GENERATING POWER, SPACE HEATING, OR COOKING

When using alternate sources of power, space heating, or cooking, beware of their primary hazards: carbon monoxide poisoning, electric shock, and fire. Never use a generator, grill, camp stove, or other gasoline, propane, natural gas or charcoal-burning devices inside a home, garage, basement, crawlspace or any partially enclosed area. Locate the unit away from doors, windows and vents that could allow carbon monoxide to come indoors. Install carbon monoxide alarms in central locations on every level of your home and outside sleeping areas to provide early warning of accumulating carbon monoxide. If the carbon monoxide alarm sounds, move quickly to a fresh air location outdoors or by an open window or door. Call for help from the fresh air location and remain there until emergency personnel arrive to assist you.

Some generator precautions are:

- If you are considering getting a generator, get advice from a professional, such as an electrician. Make sure that the generator you purchase is rated for the power that you think you will need.
- When using a portable generator, connect the equipment you want to power directly to the outlets on the generator. Do not connect a portable generator to a home's electrical system.



DURING A POWER OUTAGE

EXTREME HEAT

When using alternate sources of power, space heating, or cooking, beware of their primary hazards: carbon monoxide poisoning, electric shock, and fire. Never use a generator, grill, camp stove, or other gasoline, propane, natural gas or charcoal-burning devices inside a home, garage, basement, crawlspace or any partially enclosed area. Locate the unit away from doors, windows and vents that could allow carbon monoxide to come indoors. Install carbon monoxide alarms in central locations on every level of your home and outside sleeping areas to provide early warning of accumulating carbon monoxide. If the carbon monoxide alarm sounds, move quickly to a fresh air location outdoors or by an open window or door. Call for help from the fresh air location and remain there until emergency personnel arrive to assist you.

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Heat stroke requires special precautions. It is the most serious heat illness. It happens when the body can't control its own temperature and its temperature rises rapidly. Permanent disability or even death can result if emergency care is not given. Warning signs of heat stroke vary but can include:

- Red, hot, and dry skin (no sweating)
- Rapid, strong pulse
- Throbbing headache
- Dizziness, nausea, confusion, or unconsciousness
- An extremely high body temperature (above 103°F)





DURING A POWER OUTAGE

EXTREME HEAT

If you suspect someone has heat stroke:

- Immediately call for medical attention.
- Get the person to a cooler area.
- Cool the person rapidly by immersing him/her in cool water or a cool shower, or spraying or sponging him/her with cool water. If the humidity is low, wrap the person in a cool, wet sheet and fan him/her vigorously.
- Monitor body temperature and continue cooling efforts until the body temperature drops to 101-102°F.
- Do not give the person alcohol to drink. Get medical assistance as soon as possible.
- If emergency medical personnel do not arrive quickly, call the hospital emergency room for further instructions.





DURING A POWER OUTAGE

EXTREME COLD

Be aware of health risks in extreme cold. To reduce cold stress:

- Everyone, especially the elderly and ill, should have adequate food, clothing, shelter, and sources of heat.
- Blankets can help, even in poorly heated rooms.
- Wear layers of clothing and a hat, which help to keep in body heat.
- Move around. Physical activity raises body temperature.
- Avoid swimming or wading in water, which drains body heat. When entering water is necessary, if possible wear insulating boots and clothes, take frequent breaks out of the water, and quickly change back into dry clothes.

Hypothermia requires special precautions. It happens when a person's core body temperature is lower than 35°C (95°F). Some of the warning signs of hypothermia are:

- As the body temperature decreases, the person will be less awake and aware and may be confused and disoriented. Because of this, even a mildly hypothermic person might not think to help himself/herself.
- A victim may be unconscious.

If you suspect someone is hypothermic:

- Even someone who shows no signs of life should be brought quickly and carefully to a hospital or other medical facility.
- Do not rub or massage the skin.
- People who have severe hypothermia must be carefully rewarmed and their temperatures must be monitored.
- Do not use direct heat or hot water to warm the person.
- Give the person warm beverages to drink.
- Do not give the person alcohol or cigarettes. Blood flow needs to be improved, and these slow blood flow.





DURING A POWER OUTAGE

POWER LINE HAZARDS AND CARS

- If a power line falls on a car, you should stay inside the vehicle. This is the safest place to stay. Warn people not to touch the car or the line. Call or ask someone to call the local utility company and emergency services.
- The only circumstance in which you should consider leaving a car that is in contact with a downed power line is if the vehicle catches on fire. Open the door. Do not step out of the car, or you may receive a shock. Instead, jump free of the car so that your body clears the vehicle before touching the ground. Shuffle away taking very small steps, keeping your feet in constant contact with the ground and each other until you are a safe distance (e.g., 50 feet) from the vehicle and downed wires.
- As in all power-line related emergencies, call for help immediately by dialing 911 or call your electric utility company's Service Center/Dispatch Office.
- Do not try to help someone else from the car while you are standing on the ground.

FIRST AID FOR ELECTRICAL SHOCK

If you believe someone has been electrocuted:

- Look first. Don't touch. The person may still be in contact with the electrical source. Touching the person may pass the current through you.
- Call or have someone else dial 911 for emergency medical help.
- Turn off the source of electricity if possible. If not, move the source away from you and the affected person using a dry, non-conducting object (e.g., something made of cardboard, plastic or wood).
- Once the person is free of the source of electricity, check the person's breathing and pulse. If either has stopped or seems dangerously slow or shallow, begin cardiopulmonary resuscitation (CPR) immediately, if you have been trained and know how.
- If the person is faint or pale or shows other signs of shock, lay the person down with the head slightly lower than the trunk of his or her body and the legs elevated.
- Don't touch burns, break blisters, or remove burned clothing. Electrical shock may cause burns inside the body, so be sure the person is taken to a doctor.





DURING A POWER OUTAGE

WORKER SAFETY DURING POWER RECOVERY

- Unless you are trained and authorized specifically for electrical work, stay well clear of all power lines.
- During power outages, many people use portable electrical generators. If a portable
 generator is improperly sized, installed, or operated, it can send power back to the
 electrical lines. Backfeed electrical energy can seriously injure or kill repair workers
 or people in neighboring buildings. It is particularly a risk for electrical energy
 workers who respond to an outage. Electrocutions are the fifth leading cause of all
 reported occupational deaths.
- Special precautions are recommended if you may come in contact with or in proximity to power lines, electrical components, and the moving parts of heavy machinery as power lines are reenergized and equipment reactivated. These precautions include:
- Power lines should not be tested, repaired or otherwise accessed except by trained and authorized personnel.
- Treat all power lines as "hot" unless the lines have been de-energized and grounded.





AFTER A POWER OUTAGE

BE AWARE OF YOUR SURROUNDINGS

- To avoid a surge when the power is restored, turn off and/or unplug non-essential electrical equipment, computers, and other voltage-sensitive equipment or appliances.
- Check appliances, especially stoves, to be sure that they weren't left on and unattended when the power went out.
- Do not touch any electrical power lines and keep others away from them. Report downed power lines to the appropriate officials in your area.

CHECK YOUR FOOD AND WATER

- Throw away any food that has been exposed to temperatures 40°F (4°C) or higher for 2 hours or more or that has an unusual odor, color, or texture. When in doubt, throw it out!
- Never taste food or rely on appearance or odor to determine its safety. Some foods
 may look and smell fine, but if they have been at room temperature too long,
 illness-causing bacteria can start growing quickly. Some types of bacteria produce
 toxins that cannot be destroyed by cooking.
- If food in the freezer is colder than 40°F and has ice crystals on it, you can refreeze it
- If you are not sure food is cold enough, take its temperature with a food thermometer. Throw out any foods (meat, poultry, fish, eggs, and leftovers) that have been exposed to temperatures higher than 40°F (4°C) for 2 hours or more, and any food that has an unusual odor, color, or texture, or feels warm to the touch.





AFTER A POWER OUTAGE

ALTERNATE SOURCES OF ENERGY

When using alternate sources of energy for heating or cooking, beware of their primary hazards: carbon monoxide poisoning, electric shock, and fire.

- Never use a generator, grill, camp stove or other gasoline, propane, natural gas or charcoal-burning device inside a home, garage, basement, crawlspace, or any partially enclosed area. Locate the unit away from doors, windows, and vents that could allow carbon monoxide to come indoors.
- Maintain carbon monoxide alarms in central locations on every level of your home and outside sleeping areas to provide early warning of accumulating carbon monoxide.
- If the carbon monoxide alarm sounds, move quickly to a fresh air location outdoors or by an open window or door. Call for help from the fresh air location, and remain there until emergency personnel arrive to assist you.





On average in the U.S., fire injures someone every 31 minutes and is a leading cause of accidental death. Fires on college campuses can be expected to take ten lives each year. Most of that loss starts with accidents — in cooking or smoking, or overloaded circuits and extension cords. Furthermore, most fire casualties turned to fatalities indirectly: three times as many from inhaling smoke and toxic vapors than from burns.

Fires should be preventable. Apathy and abuse of smoke detectors and fire alarms increase the risk. If you know how to recognize hazards and how to reduce them, you will increase your chances of protecting yourself and those around you.

BEFORE A BUILDING FIRE

Fires can spread quickly and become life-threatening in minutes. By the time you notice a fire on your floor or hear an alarm, it may be too late to plan an escape. Do not waste time gathering valuables or making phone calls. **Evacuate** immediately. Prepare now to protect yourself then.

Consider guests as well as yourself, and what you can do together to reduce the likelihood and severity of fires:

- When partying, pick someone to be a safety monitor, someone who will remain sober and reliable.
- Never leave candles unattended.
- Supervise children, especially if they're near cooking surfaces or space heaters.
- If you are a Virginia Tech employee, be sure that you comply with fire safety requirements.

In regular housekeeping, remove wastes and reduce combustibles in work spaces:

- Minimize the storage of flammable items such as cardboard boxes, old newspapers, magazines, etc.
- Keep combustibles (including drapery) away from space heaters and halogen lamps.
- Limit the storage of flammable liquids in shops or laboratories. Where large amounts are required, use flammable-liquid storage cabinets.
- Store matches and lighters up high, preferably in a locked cabinet, out of children's reach.

Flammable items, such as fuel (propane, lamp oil, solvents, gasoline, etc.), may not be stored in rooms or around residence halls. Items that require an open flame, operate on fuel, or produce heat, such as Bunsen burners, lighted candles, incense, and alcohol burners, are prohibited. Candles, incense, and other items producing an open flame may not be burned in the residence halls, except as part of a regulated religious ceremony approved in advance by Environmental Health and Safety.





BEFORE A BUILDING FIRE

COOKING

- Never leave food unattended. A serious fire can start in just seconds.
- Wear short or tight-fitting sleeves rather than loose long sleeves when you cook.
- Keep towels, pot holders and curtains away from flames.
- Never use the range or oven as a space heater.
- Double-check the kitchen before you go to bed or leave the house.

SMOKING

- If you must smoke, smoke outside.
- Do not smoke if you are drowsy.
- Don't smoke in bed.
- Extinguish all smoking materials thoroughly. Put it out all the way every time!
- Use ashtrays with a wide, stable base that is hard to tip or trip over. If it wobbles, it won't work!
- Douse ashtrays with water before emptying them in the trash.
- If people smoke in your home, be sure to check for cigarettes butts near the furniture and under sofa cushions before you call it a night.

MAINTAINING YOUR HOME

- If you must smoke, smoke outside.
- Do not smoke if you are drowsy.
- Don't smoke in bed.
- Extinguish all smoking materials thoroughly. Put it out all the way every time!
- Use ashtrays with a wide, stable base that is hard to tip or trip over. If it wobbles, it won't work!
- Douse ashtrays with water before emptying them in the trash.
- If people smoke in your home, be sure to check for cigarettes butts near the furniture and under sofa cushions before you call it a night.





BEFORE A BUILDING FIRE

HAVE A PLAN

- Develop a plan for responding to fire in or near the places that you occupy.
- Discuss the plan with the people who share your area.
- Notify caregivers and babysitters about your plan. Include pet care.
- Practice using the plan. Review escape routes.
- Identify alternate exits and be prepared to use them. Know what to do if the nearest exit is blocked or unsafe.
- Locate or draw a picture showing escape routes for every room in your area and share it with those around you.
- Make sure windows are not nailed or painted shut and that security gratings can be opened from the inside when necessary.
- Prepare for the possibility that exit signs will be hard to see. Note exactly how many doors you will have to pass before you reach the nearest exit and an alternate.
- Upper floor windows should have fire escape ladders. Since they vary in design, check to be sure that you know where the ladders are and how to use them.
- Post emergency numbers by every phone and on your cell. Be sure that everyone knows how to call for help.
- Plan on a meeting place outside (e.g., per the building evacuation plan).
- Hold fire drills every three months, especially if there are small children or disabled persons present. Hold some drills during nighttime hours.

MAKE A KIT

• Make a kit with essentials ready to grab and go in case of fire. Visit emergency.vt.edu to learn more

Essentials:

- Non-perishable and high-energy food items
- Water in bottles or other sealed containers
- Medications (must be properly safeguarded), first aid kit, and sunscreen
- Warm clothes (like sweaters and coats) and comfortable shoes and socks

- Flashlight and batteries
- Battery-operated radio and batteries
- Cash, about \$20
- Extra charger for your current cell phone
- Books, pack of cards, etc
- Also include enough food and water for your pets





NEVER IGNORE A FIRE ALARM! Your first reaction should be to grab your room keys, alert the people around you, and go.

- Act immediately but try to stay calm.
- Stay low in case of smoke or fumes. If you're in bed, roll off the bed and crawl to the door.
- Don't waste time getting dressed or searching for valuables.
- Do not attempt to extinguish a fire unless you are trained to do so. Leave fire fighting to the professionals.
- To waken anyone who may be asleep, shout, "Fire! Everyone out!" Feel the doorknob or higher on the door with the back of your hand. If it feels hot, fire may be on the other side of the door, so keep it shut. Stuff clothing, towels, or newspapers in the door's cracks to keep smoke out.
- Even if the door is cool, open it slowly. Stand low and to one side of the door, in case smoke or fumes seep around it.
- If heat and smoke come in, slam the door tightly, stuff clothing, towels, or newspapers in the door's cracks to keep smoke out, and use your alternate way out.
- If you will open a window for your escape, be sure the other windows and door(s) in the room are closed tightly. Otherwise, the draft from the open window may draw smoke and fire into the room.

If the hallway is clear of smoke, walk in a calm manner to the nearest fire exit and evacuate the building.

- Use the stairs NEVER use elevators. Elevators are normally tied to a fire detection system and are not available to occupants once the alarm sounds.
- Stay low to avoid smoke, fumes, and super heated gases that may have entered.
- Close doors as you leave to confine fire as much as possible.
- If the alarm is not already sounding, pull the fire alarm on your way out of the building. If there is no alarm to activate, yell "fire" as you leave.
- Move quickly to an open area, away from buildings, trees, power lines, and roadways. If your building has a designated assembly area and it is safe, head there.





IF TRAPPED IN A ROOM

Retreat. Close as many doors as possible between you and the fire. Seal cracks around the door to prevent smoke from entering. If you have a working phone, **dial 911 or Virginia Tech Police** and report the name of your building or address, the room number, and the fact that you are trapped and need to be rescued. Stay on the phone until the fire department arrives at your room.

Be prepared to signal from a window but DO NOT BREAK THE GLASS unless absolutely necessary (outside smoke may be drawn in). Open the window a few inches for fresh air and hang a brightly colored cloth or bed sheet out the window to alert the Fire Department to your location. If you have a flashlight, use it to signal at night. If you are trapped on the upper floors of a tall building:

- Put a wet cloth under closed doors to help prevent the spread of smoke.
- If you have a working phone, **dial 911 or 540-231-6411** and report the name of your building or address, the room number, and the fact that you are trapped and need to be rescued. Stay on the phone until the fire department arrives at your room.
- If you must escape through a window and there is no adjoining roof or fire escape, hang from the window by your hands and drop to the ground to shorten the height of the fall.
- If you must break a window to crawl out, use a chair, a drawer, or a similar object. Throw a blanket over the windowsill to help protect you from broken glass while crawling out.





IF CAUGHT IN SMOKE

Drop to hands and knees and crawl or crouch low with head 30" to 36" above the floor, watching the base of the wall as you go. Avoid crawling on your belly, because heavier toxic gases can settle and form a thin layer on the floor. Hold your breath as much as possible and breathe shallowly through your nose using your blouse or shirt as a filter. If you are forced to advance through flames:

- Hold your breath. Move quickly, covering head and hair. Keep head down and close eyes as often as possible.
- If clothing catches fire, stop where you are. Drop to the ground, and cover your mouth and face with your hands to protect them from the flames. Then roll over and over to smother the fire.

Assemble at the area designated in your departmental Emergency Action Plan, if applicable, and remain there until instructed by a public safety officer or the fire department that it is safe to re-enter the building. If there is no designated assembly point, maintain a safe distance from the building to allow ample room for emergency personnel and equipment to access the building. **Dial 911** from a safe place and report the nature and location of the fire. Follow directions of emergency personnel, if present. Do not go back inside the building until instructed by a public safety officer.

IF YOU ENCOUNTER A SMALL FIRE

A small fire is defined as wastebasket-size or smaller. Under special conditions, small fires can be extinguished before there is a full evacuation, if you have been trained and feel comfortable using an extinguisher. The fire must be truly small and controllable and you need both the right fire extinguisher and knowledge of how to use it. NEVER ENTER A SMOKE-FILLED ROOM, even if it looks free of fire. In any case, constantly evaluate and be ready to evacuate if the fire cannot be easily controlled. Under all circumstances:

- Alert people in the area.
- Activate the fire alarm.
- Maintain an accessible exit.
- Avoid smoke and fumes.
- Smother the fire or use the correct fire extinguisher. Aim the extinguisher at the base of the fire. Only trained personnel should use fire extinguishers. Use fire extinguisher on small fires ONLY if it is safe to do so; otherwise GET OUT.
- Remain available to answer questions from public safety officers or the fire department.
- Contact Physical Plant (540-231-4300) or Facilities Services (540-231-4300) to replace the fire extinguisher.
 - Report all fires to a supervisor.





FIRE EXTINGUISHER INSTRUCTIONS

- **P** PULL safety pin from handle.
- **A** AIM (nozzle, cone, horn) at base of the fire.
- **S** SQUEEZE the trigger handle.
- **S** SWEEP from side to side (watch for re-flash).

HIGH RISE APARTMENTS

If you live in a high rise apartment, there are a few added things you should know in case there is a fire in your building:

- Learn your building's evacuation plans. Know the location of fire alarms, and learn how to use them. Post emergency numbers for the fire department (911) near all telephones.
- If your building has a public-address system, listen carefully and follow instructions.
- Never take an elevator when leaving a burning building. Instead, go directly to the nearest fire- and smoke-free stairway.
- If you cannot get to a fire stairway, go to a room with an outside window.
- If there is a working phone, dial 911 and report where you are. Do this even if you can see fire trucks on the street below.
- Stay where rescuers can see you through the window, and wave a light-colored cloth such as a hand towel to attract their attention.
- If possible, open the window at the top and bottom. Be ready to shut the window quickly if smoke rushes in.
- You may need to be patient the rescue of occupants of a high-rise building can take as much as several hours.





IMMEDIATELY AFTER A FIRE

- Have injuries treated by a medical professional. Small wounds may be washed with soap and water and then bandaged to reduce the risk of infection. Replace bandages if they become soiled, damaged, or waterlogged.
- Remain calm. Pace yourself.
- You may find yourself in the position of taking care of other people. Listen carefully, and deal patiently with urgent situations first.
- Check with the fire department to learn if your residence is safe to enter. Doors or windows may be cordoned off with yellow tape to indicate damage. Do not cut or walk past the tape unless local authorities advise that it is safe to do so. If a structure bears a color-coded sign, do not enter it until you get official information about what the sign means and advice about the safety of entering.

COPING WITH EMOTIONS

You may be surprised at how you and others feel after a disaster. It can stir up a variety of unanticipated feelings, and they are as important to address as bodily injuries, damaged homes, and possessions. Almost everyone is apt to be upset. People may fear that the worst isn't yet over. They may worry about their safety or that of a loved one. They may feel shock, disbelief, grief, anger, or guilt. Memory lapses, anxiety, and depression are also possible. Children, senior citizens, people with disabilities, and people for whom English is not their first language are especially at risk and may need extra attention. It is important to calmly let them know that they are safe and that help is available. Reassurance from a competent adult can help people recover more quickly and completely. Some basic steps you can take to meet emotional needs:

- Try to return to as many of your normal routines as possible.
- Get rest and drink plenty of water.
- Limit your exposure to the sights and sounds of disaster, especially on television, the radio, and in the newspapers.
- Focus on the positive.
- Recognize your own feelings.
- Reach out and accept help from others.
- Do something you enjoy, like familiar get-togethers.
- Stay connected with your family or other supporters.
- Realize that recovery can take time.





HELPING PETS

- If you have pets, try to find and comfort them. Handle animals carefully and calmly.
- Pets can become upset and react to a disaster in unusual ways, such as spraying urine, defecating on floors or scratching/biting furnishings. Since pets will need regular care and attention to help them calm down, try to leave pets with a family member, friend, veterinarian, or boarding facility while you are dealing with other challenges. Animals are naturally inquisitive and could be injured if they are brought back to a damaged home.
- Use toys, a blanket, or favorite human's unsoiled clothing to comfort pets.
- Make sure pets are fed their usual diet and have plenty of water.
- Visit your pets regularly, speak calmly, and take some time out to play with them. Caring for pets can help you in your recovery, as well.

CHECKING YOUR RESIDENCE

- If you live in Virginia Tech housing, check university news to find out when it is safe to return.
- For a residence of your own, check with the fire department to make sure your residence is safe to enter. Do not cut or walk past colored tape or a color-coded sign until you get more advice and instructions about what these signs mean and whether it is safe to enter.
- If you have children, leave them with a relative or friend while you conduct your first inspection of your damaged home. The site may be unsafe for children, and seeing the damage firsthand may upset them unnecessarily.





CHECKING UTILITIES AND MAJOR SYSTEMS

Telephones:

- Check each telephone to see if it is still on the hook. Hang up any phones that may have been knocked off. Wait a few minutes, and then pick up one phone to listen for a dial tone to know whether you have working telephone service.
- If you do not have a dial tone, try unplugging all the telephones. Plug in one at a time and listen for dial tone. This will help you determine if the telephone instrument is broken or the phone service is completely out. If it is, contact the telephone company using a cellular telephone or a neighbor's phone to report the problem and to request repair.

Electrical Systems:

- If you see sparks, broken or frayed wires, or if you smell hot insulation, turn off the electricity at the main fuse box or circuit breaker.
- If there is a pool of water on the floor between you and the fuse box or circuit breaker panel, use a dry wooden stick to try to reach to turn off the main fuse or breaker, but do not step or stand in water to do that. If you cannot reach the fuse box or breaker panel, call a qualified electrician for assistance.
- Inspect the panel box for any breakers that may have tripped. A tripped breaker may indicate damaged wiring inside your home. Do not turn on breakers that tripped; instead, turn tripped breakers to the "off" position and mark them with a piece of tape to indicate which ones were tripped when you found them. Have a qualified electrician determine if there are hidden internal electrical problems and fix them.
- Turn off all other circuit breakers except the one marked "main" and the breakers for the room(s) in which you will be working. When the power is restored, turn breakers back on, one at a time, for each room as you get to it during the restoration process.
- Use a flashlight to check each fuse to see if it is still in working order. Replace each broken fuse with a fuse of exactly the same amperage rating. Do not use fuses of lower or higher ratings as replacements, or any other object such as a coin or strip of metal to bypass the protection that fuses provide.





CHECKING UTILITIES AND MAJOR SYSTEMS

Heating Systems:

• If equipment in your home is connected to a heating oil tank, turn off all valves and consult a plumbing-and-heating specialist before using the system again.

Plumbing:

- If you suspect sewage lines are damaged, avoid using sinks, showers, or toilets and call a plumber.
- If water pipes are damaged, turn off the water at the main valve. Call a plumber for assistance.

CHECKING HOUSEHOLD ITEMS

- Normal household items, such as cleaning products, can cause toxic fumes and other hazards if they mix. If you smell a noxious odor, or your eyes water from fumes, open a window and get out of your home.
- Call for professional help. If there are spilled chemicals that do not pose a health risk, be sure to put on rubber gloves in addition to other protective clothing. Discard spilled chemicals and rags used for cleaning according to the advice of local authorities.
- Throw away food, beverages, and medicine exposed to heat, smoke, or soot. Food that was in the freezer can be used if it still has ice crystals on it. If not, discard it.

MAKING REPAIRS

- Carefully follow the instructions provided with tools and equipment (such as power tools) to maintain personal safety at all times.
- Wear personal protective equipment including goggles, gloves, long sleeves and long pants whenever you are operating power equipment.
- Keep children away from power equipment.
- Damaged locks (especially iron locks) should be taken apart and wiped with oil.
 If locks cannot be removed, squirt machine oil through a bolt opening or
 keyhole, and work the knob to distribute the oil. Hinges should also be
 thoroughly cleaned and oiled.





CLEANING UP AND REMOVING SMOKE ODOR

- Some products are especially intended to reduce odors in fabrics. Use only products that are clearly marked as suitable for clothing for fabrics that come in contact with skin. Check the label.
- A common cleaning ingredient is trisodium phosphate. It is a generic and can be abbreviated as "TSP". It is a caustic substance and should be stored and used with care, out of reach of children and pets. Read the label for further information and safety instructions.
- Test garments before using any treatment, and follow the manufacturer's instructions. Smoke odor and soot can sometimes be washed from clothing that can be bleached with 4 to 6 tbsp. TSP (or 1 cup household cleaner/chlorine bleach) to every gallon of warm water. Mix well, add clothes and rinse with clear water. Dry thoroughly. Alternatively, consider washing clothes in cold water with your usual household laundry detergent, and adding one tablespoon of pure vanilla extract. This solution also has been shown to remove smoke odors on kitchen surfaces and washable furniture.
- To remove soot and smoke from walls, furniture, and floors, use a mild soap or detergent or mix together 4 to 6 tbsp. TSP and 1 cup household cleaner or chlorine bleach to every gallon of warm water. Wear rubber gloves. Be sure to rinse your walls and furniture with clear warm water and dry thoroughly after washing them with this solution.
- Pots, pans, flatware, etc., should be washed with soapy water, rinsed, and then
 polished with a fine-powdered cleaner. You can polish copper and brass with
 salt sprinkled on a piece of lemon, or salt sprinkled on a cloth saturated with
 vinegar.
- Wipe leather goods with a damp cloth, then a dry cloth. Stuff purses and shoes
 with newspaper to retain shape. Leave suitcases open. Leather goods should be
 dried away from heat and sun. When leather goods are dry, clean with saddle
 soap. Rinse leather and suede jackets in cold water and dry away from heat and
 sun.





CLEANING UP AND REMOVING SMOKE ODOR

- Washable wallpaper can be cleansed like painted walls, but do not wet through
 the paper. Wash a small area of the walls at a time, working from bottom to top
 to prevent streaking. Then rinse the wall with clear water immediately. Ceilings
 should be washed last. Use a commercial paste to refasten loose edges or
 sections.
- Do not repaint until walls and ceilings are completely dry.
- Reduce the growth of mold and mildew by wiping down surfaces that got wet
 with a solution of one cup of liquid household bleach to a gallon of water.
 Beforehand, test painted, textured, or wallpapered surfaces to ensure that the
 bleach solution will not discolor them. Test by wiping a small area with the
 bleach solution. Allow it to dry for least 24 hours and then check.
- Consult a professional about replacing drywall and insulation that has been soaked by water from fire hoses. Water-damaged drywall and insulation must be replaced. It cannot be dried out and maintain structural integrity or resistance to mold and mildew.

RECOVERING FINANCIALLY

- Contact your insurance agent, broker, or insurance company as soon as you can to report how, when and where the damage occurred. Provide a general description of the damage.
- Prepare a list of damaged or lost items and provide receipts if possible. Photographs or videotape of the damage can also help prove your claim.
- If possible, keep damaged items or portions of those items until the designated claims adjuster has visited your home. Do not throw away anything you plan to claim without discussing it with that adjuster first.
- Keep receipts for all additional expenses that you may incur such as lodging, repairs, or other supplies.
- Keep copies of all documentation given to the claims adjuster or insurance company.





REBUILDING

- Make sure that the contractor rebuilding your home obtains a building permit and follows the current building, fire, and electrical codes for your area.
- Ask a professional about having automatic residential fire sprinklers installed during the reconstruction process. It is much less expensive to have sprinklers installed during reconstruction than after the construction is complete.
- Make sure that smoke alarms are installed following your local fire protection codes. Smoke alarms are best installed inside each sleeping room, and in hallways outside sleeping areas, with at least one on every floor. The smoke alarms are best interconnected, so that if one alarm sounds, all will sound. Alarms are best operated by both household power and batteries in case electrical service is interrupted. (Check with local authorities about the fire code in your area.)
- Update your disaster plans and replenish emergency supplies, just in case a disaster happens again. It is reassuring to know that you are again prepared and less vulnerable to another disaster.
- Consider purchasing homeowner's or renter's insurance. Make copies of important documents, such as birth and marriage certificates and insurance policies, and store these in a safe place.



WEATHER EMERGENCIES





On Aug 23, 2011, Virginia experienced an earthquake measuring 5.8 on the Richter Magnitude Scale — the largest earthquake to have occurred in the United States east of the Rocky Mountains in more than 100 years. Though the epicenter was 40 miles northwest of Richmond, the earthquake was still felt in Blacksburg and other Virginia Tech campuses across Virginia.

Although earthquakes are not as common in Virginia as they are on the West Coast of the United States, they are still significant enough occurrences to warrant being properly prepared for.

IF AN EARTHQUAKE OCCURS IN YOUR AREA

- If indoors, drop to the ground and take cover by getting under a sturdy table or a piece of furniture. Hold on until the shaking stops.
- If there isn't a table or desk near you, cover your face and head with your arms and crouch in an inside corner of the building.
- Stay away from anything that could fall, such as lighting fixtures or heavy bookcases.
- Use a doorway for shelter only if it is nearby and if you know it is a strongly supported.
- Stay inside until the shaking stops and it is safe to move about. Injuries most often occur when people inside buildings attempt to move during the earthquake. Beware of aftershocks.
- If you are outdoors, stay there. Move away from buildings, street lights, and utility wires.

BEFORE AN EARTHQUAKE

Earthquakes can occur without warning and have the potential to severely affect lives and structures. Identifying potential hazards ahead of time and preparing in advance can reduce the dangers of serious injury or loss of life from an earthquake.





EARTHQUAKEBEFORE AN EARTHQUAKE

IDENTIFY THE SAFEST, INTERIOR LOCATIONS

In each room of your home or building, identify the safest places to "drop, cover, and hold on" during an earthquake. Practice finding safe, interior locations and share your plans with housemates and office-mates:

- Shelter against an inside wall or under sturdy furniture, such as heavy desks or tables.
- Stay away from any areas where glass could shatter, such as windows, mirrors, or pictures.
- Avoid areas where heavy furniture could fall over, such as large bookcases and cabinets.

MAKE A KIT

For more information on emergency kits, visit emergency.vt.edu. If earthquakes are prone to happening in your area, make sure your emergency kit includes the following:

- Non-perishable and high-energy food items
- Water in bottles or other sealed containers
- Medications (must be properly safeguarded), first aid kit, and sunscreen
- Warm clothes (like sweaters and coats) and comfortable shoes and socks

- Flashlight and batteries
- Battery-operated radio and batteries
- Cash, about \$20
- Extra charger for your current cell phone
- Books, pack of cards, etc
- Also include enough food and water for your pets





EARTHQUAKEBEFORE AN EARTHQUAKE

DEVELOP A PLAN

Determine a emergency plan for disasters with family, colleagues, and friends. Topics should include:

- How to contact each other after an emergency.
- How to find each other and assemble after an emergency. This includes determining assembly points for both work and home and considering dependents at school, daycare, and assisted living facilities. Remember pets, they depend on you for care and assistance as well.
- Determining emergency contacts. Make sure everyone has an emergency contact card that is easily accessible in wallets and bags and an I.C.E. (In Case of Emergencies) contact programmed into cell phones.

Identify and reduce earthquake hazards at home and work. These mitigation efforts should include:

- Securing heavy objects to walls and floors, such as shelves, bookcases, cabinets, and water heaters.
- Placing large, heavy, or breakable objects on lower shelves.
- Hanging heavy items such as pictures and mirrors away from areas where people sit or gather frequently.
- Bracing overhead light fixtures.
- Repairing defective electrical wiring and leaky gas connections. These are potential fire risks.
- Repairing any deep cracks in ceilings or foundations. Get expert advice if there are signs of structural defects.
- Storing flammable products and hazardous material securely on bottom shelves in cabinets that are closed with latches. Follow MSDS storage guidelines.





DURING AN EARTHQUAKE

INDOORS

The instant you feel the ground or building start to shake, move quickly to protect yourself. Be aware that some tremors are actually foreshocks and a larger earthquake might follow.

- If indoors, drop to the ground and take cover by getting under a sturdy table or a piece of furniture. Hold on until the shaking stops.
- If there isn't a table or desk near you, cover your face and head with your arms and crouch in an inside corner of the building.
- Stay away from glass, windows, outside doors and walls, and anything that could fall, such as lighting fixtures or heavy bookcases.
- Use a doorway for shelter only if it is nearby and if you know it is a strongly supported.
- Stay inside until the shaking stops and it is safe to move about. Injuries most often occur when people inside buildings attempt to move during the earthquake. Beware of aftershocks.
- Be aware that the electricity may go out, sprinkler systems may turn on, and fire alarms may be activated.
- DO NOT use the elevators.

OUTDOORS

- Stay outside. Do not try to enter any buildings to help others.
- Move away from buildings, streetlights, and utility wires.
- Once in an open, safer location, stay there until the shaking stops. The greatest danger exists directly outside buildings, at building entrances/exits, and alongside exterior walls where there may be falling debris.





DURING AN EARTHQUAKE

IN A MOVING VEHICLE

- Stop as quickly as safety permits. Avoid stopping near buildings, trees, overpasses, and utility wires.
- Stay in the vehicle with your seatbelt fastened until the shaking stops.
- Proceed cautiously once the earthquake has stopped. Avoid roads, bridges, or ramps that might have been damaged by the earthquake.
- If a power line falls on your vehicle, do not get out. Wait for assistance.
- If you are in a mountainous area or near unstable slopes or cliffs, be alert for falling rocks and other debris. Landslides are often triggered by earthquakes.

TRAPPED UNDER DEBRIS

- Do not light a match.
- Do not move about or kick up dust.
- Cover your mouth with a handkerchief or clothing to help filter the air you breathe.
- Tap on a pipe or wall so rescuers can locate you. Use a whistle if you have one. Shout only as a last resort to minimize inhaling dust that could be dangerous.





AFTER AN EARTHQUAKE

IMMEDIATELY AFTER A MINOR EARTHQUAKE (BRIEF ROLLING MOTION)

- Remain calm.
- Treat any injuries or seek professional medical care. Small wounds should be washed with soap and water and then bandaged to reduce the risk of infection. Replace bandages as needed.
- Examine your area for damage.
- Report damage or releases of hazardous materials to a supervisor. Also report damages to the Physical Plant at 540-231-4300 or Facilities Services at 540-231-4300.
- Evacuations are unlikely but use common sense and evacuate if you feel it is necessary.
- Await instructions from supervisors or emergency personnel.

IMMEDIATELY AFTER A MAJOR EARTHQUAKE (VIOLENT SHAKING)

- Remain calm.
- Treat any injuries or seek professional medical care. Small wounds should be washed with soap and water and then bandaged to reduce the risk of infection. Replace bandages as needed.
- Dial 911 to report major injuries to emergency personnel.
- Assist others as trained.
- Take emergency supplies and evacuate carefully and calmly.
- Do not use elevators.
- Be alert for aftershocks.
- Meet at your designated assembly point, as determined in your department's Emergency Action Plan (EAP).
- Do not enter buildings until they are examined and considered safe by emergency personnel. If a structure bears a color-coded sign, do not enter it until you get official information about what the sign means and advice about the safety of entering.
- Await instructions from supervisors and emergency personnel.





AFTER AN EARTHQUAKE

AFTERSHOCKS AND TSUNAMIS

- Be aware that earthquakes may continue after the initial tremor. Be alert and expect
 aftershocks. Each time you feel an aftershock, drop, cover, and hold on. Aftershocks
 are often less violent than the main earthquake. However, they can be strong enough
 to damage weakened structures. Though they often occur in the few first hours after
 the initial earthquake, they can also happen after days, weeks, or even months have
 passed.
- If you are in coastal areas, be aware of possible tsunamis. When local authorities issue a tsunami warning, assume that a series of large, dangerous waves could strike your area. Evacuate if time permits. Otherwise shelter-in-place and stay away from the beach.

STAY INFORMED, GET ASSISTANCE, AND HELP OTHERS

- Listen to a battery-operated radio or television for the latest emergency information. Use landline and mobile telephones only for emergency calls.
- Check yourself for injuries and get first aid before trying to assist others.
- Help dependents, such as children, elderly, and pets. Check on neighbors and others who may require special assistance. Give first aid where appropriate. Do not move anyone who is seriously injured unless he/she is in immediate danger of further injury. Call 911 for emergency help.





AFTER AN EARTHQUAKE

RETURNING TO NORMALCY

- Return to your home or workspace only when public safety officials declare the area or the structure safe. Stay away unless your assistance has been specifically requested by emergency personnel.
- When checking your surroundings for damage, wear protective gear such as long pants, a long-sleeved shirt, sturdy shoes or work boots, and thick work gloves to protect against injury. Be cautious and stay away from areas that appear hazardous.
- Look for damage in and around the building. Evacuate the building if it is unsafe. Extinguish small fires (defined as the size of a waste basket or smaller). Fire is the most common hazard after an earthquake. Inspect the entire length of chimneys for damage as unnoticed damage could cause a fire.
- Examine walls, floors, doors, staircases, and windows. Open cabinets cautiously and beware of objects that can fall off shelves. Clean up spilled medicines, bleaches, gasoline, or other flammable liquids immediately (use a MSDS to determine proper cleanup). Leave the area if you smell gas or fumes from other chemicals and seek professional help. If you are on the Blacksburg campus, call Environmental Health and Safety at 540- 231-3600.
- Report any damage or any releases of hazardous materials to supervisors. Also report any damage to the Physical Plant (540-231-4300) or Facilities Services (540-231-4300).





FLOODING IN THE UNITED STATES

- Floods are the most common of natural disasters in the United States, and consequences can be severe. In the last 10 years, they have occurred in every one of the fifty states and caused nearly \$24 billion in losses. Flash floods in particular are among the most frequent and deadly of weather-related hazards. Damage from flooding, however, is rarely covered in homeowner's and business insurance policies.
- Vulnerability to flooding varies with local conditions and is based on a number of factors: rainfall, river-flow and tidal-surge conditions, topography, flood-control measures, and changes due to building and excavation. Among the immediate causes are hurricanes, broken dams or levees, defective drainage systems, and sudden winter thaws, as well as heavy rain.

FLOODING IN THE NEW RIVER VALLEY

- In a recent assessment of vulnerabilities in the New River Valley, flooding was ranked number one. In the area surrounding Virginia Tech, local floods are more likely both to happen and to have far-ranging, severe impacts than any other kind of disaster.
- The mountains of western Virginia are among the most flash-flood prone areas in the U.S., due to the strong storms created by the collision of warm, moist Gulf air and cold fronts from the North. On February 22, 2003, for example, heavy rains fell upon accumulated ice and snow, setting off flash floods that impacted every jurisdiction in the New River Valley. Montgomery County and other western Virginia counties were later declared Presidential-disaster areas.
- Blacksburg is also vulnerable to more predictable, riverine floods. The city is located atop the eastern continental divide where Toms and Stroubles Creeks flow into the New River. These two creeks along with Cedar Run, a tributary of the Roanoke River and Slate Branch are of the most concern for flood conditions. Flooding is most likely to occur in low-lying areas as a result of heavy rains of a localized storm, a tropical storm, or a combination of rain and snowmelt. Record setting floods occurred in 1940, 1972, 1978, 1985, and 1991. The 1991 flood caused \$4.5 million in damage on the Virginia Tech Campus, including major damage to the Donaldson Brown Center.





FLOOD ADVISORY TERMS

- **Flood Watch:** Flooding is possible. Tune in to NOAA Weather Radio, commercial radio, or television for information
- **Flash Flood Watch:** Flash flooding is possible. Be prepared to move to higher ground; listen to NOAA Weather Radio, commercial radio, or television for information.
- **Flood Warning:** Flooding is occurring or will occur soon; if advised to evacuate, do so immediately.
- **Flash Flood Warning**: A flash flood is occurring; seek higher ground on foot immediately.

BEFORE A FLOOD

Be prepared to evacuate at a moment's notice – Have a Plan, Make a Kit, Stay Informed!

- Listen to area radio and television stations and a NOAA Weather Radio for possible flood warnings and reports of flooding in progress or other critical information from the National Weather Service (NWS).
- Know safety tips and build an emergency kit. Include drinking water, a first-aid kit, canned food, a radio, flashlight, and blankets.
- Have a family emergency plan [link to Make a Plan] in place. Plan and practice flood evacuation routes from home, work and school to higher ground.
- Move important objects and papers to a safe place. Store valuables where they won't get damaged.
- When a flood or flash flood warning is issued for your area, be prepared to evacuate or shelter-in-place.





BEFORE A FLOOD

PREPARE YOUR HOME

- Insofar as possible, avoid making a home in a flood prone area unless you elevate and reinforce your home. If you must live in an area that is flood prone, elevate the furnace, water heater, and electric panel.
 Consider installing "check valves" to prevent flood water from backing up into drains. If feasible, construct barriers to stop floodwater from entering the building and seal walls in basements with waterproofing compounds to avoid seepage.
- Find out how to keep food safe during and after and emergency.
- Because standard homeowners insurance doesn't cover flooding, it may be essential to buy coverage specifically for floods (e.g., in hurricanes, tropical storms, heavy rains and related conditions).

PREPARE YOUR BUSINESS

- Make a Continuity of Operations Plan (COOP) to protect your investment and keep your business running. Identify functions that are critical to your company's survival and recovery. Determine which staff, materials, procedures, and equipment are absolutely necessary to maintain or restore those essential functions. Plan what you will do if your place of business is not accessible.
- Consider if you can run the business from a different location (e.g., from home).
- Develop relationships with other companies to use their facilities in case a disaster makes your location unusable.
- Share the COOP with employees. Learn about remediation and recovery programs, services, and resources at the U.S. Small Business Administration.





DURING A FLOOD

FLOOD ADVISORY TERMS

- Flood Watch: Flooding is possible. Tune in to NOAA Weather Radio, commercial radio, or television for information
- Flash Flood Watch: Flash flooding is possible. Be prepared to move to higher ground; listen to NOAA Weather Radio, commercial radio, or television for information.
- Flood Warning: Flooding is occurring or will occur soon; if advised to evacuate, do so immediately.
- Flash Flood Warning: A flash flood is occurring; seek higher ground on foot immediately.

If a flood is likely in your area, you should:

- Be prepared both to shelter-in-place and to evacuate at a moment's notice.
- Be aware of streams, drainage channels, canyons, and other areas known to flood suddenly. Flash floods can occur in these areas with or without warning clouds or rain.
- Listen to area radio and television stations and a NOAA Weather Radio for possible flood warnings and reports of flooding in progress or other critical information from the National Weather Service (NWS).
- If a flood or flash flood warning is issued for your area, immediately head for higher ground and stay there. Do not wait for instructions to move.





DURING A FLOOD

EVACUATION DURING A FLOOD

If you must prepare to evacuate, you should:

- Secure your home. If you have time, bring in outdoor furniture, and move essential items to an upper floor.
- Turn off utilities at the main switches or valves if instructed to do so. Disconnect electrical appliances. Do not touch electrical equipment if you are wet or standing in water.
- Stay away from floodwaters. Be especially cautious at night when it is harder to recognize flood danger. Keep children out of the water. They are curious and often lack judgment about rushing or contaminated water. Do not walk through moving water. Six inches of moving water can sweep you off of your feet.
- If you come upon a flowing stream, where water is above your ankles, stop, turn around and go another way.
- 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 you come upon a flooded section of road, turn around and go another way. If you are caught on a flooded road with waters rising rapidly around you, get out of the car quickly. Abandon it and move to safe, higher ground. Remember:
- You and the vehicle can be quickly swept away.
- Six inches of water will reach the bottom of most passenger cars, causing loss of control and possible stalling.
- A foot of water will float many vehicles.
- Two feet of rushing water can carry away most vehicles, including sport utility vehicles (SUV's) and pick-ups.
- Eighty percent of flood deaths occur in vehicles overturned or rolled when drivers try to cross what they think is shallow water. Water just above your car door jamb can float your car off the road and into deeper water.





AFTER A FLOOD

IMMEDIATELY AFTER A FLOOD

- Have injuries treated by a medical professional. Small wounds may be washed with soap and water and then bandaged to reduce the risk of infection. Replace bandages if they become soiled, damaged, or waterlogged.
- Remain calm. Pace yourself. You may find yourself in the position of taking care of other people. Listen carefully, and deal patiently with urgent situations first.
- Check with local authorities to learn if your residence is safe to enter. Doors or windows may be cordoned off with yellow tape to indicate damage. Do not cut or walk past the tape unless local authorities advise that it is safe to do so. If a structure bears a color-coded sign, do not enter it until you get official information about what the sign means and advice about the safety of entering.

GENERAL GUIDELINES

- Listen for news reports to learn whether the community's water supply is safe to drink.
- Avoid floodwaters. They 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.
- Stay out of any building if it is surrounded by floodwaters.
- Use extreme caution when entering buildings. There may be hidden damage, particularly in foundations.
- Clean and disinfect everything that got wet. Mud left from floodwater can contain sewage and chemicals.
- Service damaged septic tanks, cesspools, pits, and leaching systems as soon as possible. Damaged sewage systems are serious health hazards.
- Return home only when authorities indicate it is safe.





AFTER A FLOOD

GENERAL GUIDELINES

NOTE: Preparing to return home after evacuating will keep you safer while inspecting and cleaning up the damage to your home. Before traveling, ensure local officials have declared that it's safe to enter your community and that you have the supplies you will need. Exercise due caution in returning to, inspecting, and cleaning your home.

BEFORE RETURNING

- Find out if it is safe to enter your community or neighborhood. Follow the advice of your local authorities.
- Carry plenty of cash. ATMs may not work and stores may not be able to accept credit or debit cards.
- Bring supplies such as flashlights, batteries, bottled water and nonperishable foods in case utilities are out.
- Create back-up communication plans with family and friends in case you are unable to call from affected areas.
- Plan for delays when traveling. Bring extra food, water, pillows, blankets and other items that will make the trip more comfortable. Keep the fuel tank of your vehicle as full as possible in case gas stations are crowded, out of fuel or closed.
- Carry a map to help you route around heavy traffic or impassable roads.
- Find out if local medical facilities are open and if emergency services are functioning. Do NOT call 911 or the local emergency number to do this.
- Understand that recovery takes time. Focus on the positive and have patience. Others will have similar frustrations.





AFTER A FLOOD

FIRST INSPECTION

- Return home only when officials have declared the area safe.
- If possible, leave children and pets with a relative or friend. If not, keep them away from hazards and floodwater.
- Before entering your home, look outside for damaged power lines, gas lines, foundation cracks and other exterior damage. It may be too dangerous to enter the home. If power lines are down outside your home, do not step in puddles or standing water.
- Approach entrances carefully. Parts of your home may be collapsed or damaged. See if porch roofs and overhangs have all their supports.
- Check the ceiling and floor for signs of sagging. Water may be trapped in the ceiling, or floors may be unsafe to walk on.
- Beware of snakes, insects and other wildlife that may have come into your home with the floodwater.
- If you smell natural gas or propane, or hear a hissing noise, leave immediately and contact the fire department.
- If your home was flooded, assume it is contaminated with mold. Mold increases health risks for those with asthma, allergies or other breathing conditions.
- Open doors and windows. If the house was closed more than 48 hours, let it air it out before staying inside for any length of time.
- Turn the main electrical power and water systems off until you or a professional can ensure that they are safe. NEVER turn the power on or off, or use an electrical tool or appliance while standing in water.
- Contact your local or state public health department for specific recommendations for boiling or treating water in your area after a disaster as water may be contaminated.





AFTER A FLOOD

USING ALTERNATIVE SOURCES OF ENERGY

The primary hazards to avoid when using alternate sources for electricity, heating or cooking are carbon monoxide poisoning, electric shock, and fire. When using a portable generator, connect the equipment that you want to power directly to the outlets on the generator. Do not connect a portable generator to a home's electrical system.

- If you are considering getting a generator, get advice from a professional, such as an electrician.
- Make sure that the generator you purchase is rated for the power that you think you will need.
- Wear protective clothing, including rubber gloves and rubber boots. Never use a generator, grill, camp stove or other gasoline, propane, natural gas or charcoal-burning devices inside a home, garage, basement, crawlspace or any partially enclosed area. Locate the unit away from doors, windows and vents that could allow carbon monoxide to come indoors.

CLEANING YOUR HOME AFTER A FLOOD

During cleanup, wear protective clothing, including rubber gloves and rubber boots. Be careful when moving furnishings or debris, because they may be waterlogged and heavier.

Materials such as cleaning products, paint, batteries, contaminated fuel and damaged fuel containers are hazardous. Check with local authorities for assistance with disposal to avoid risk. Some cleaning solutions can cause toxic fumes and other hazards if mixed together. If you smell a strong odor or your eyes water from the fumes or mixed chemicals, open a window and get out of your home.

Also, make sure your food and water are safe before anyone - including your pet - try to consume them.

- Throw out all food, beverages and medicine exposed to flood waters and mud, including canned goods and containers with food or liquid that have been sealed shut, water bottles, plastic utensils and baby bottle nipples. When in doubt, throw it out.
- Do not use water that could be contaminated to wash dishes, brush teeth, prepare food, wash hands, make ice, or make baby formula.





AFTER A FLOOD

CLEANING YOUR HOME AFTER A FLOOD

Throw out items that absorb water and cannot be cleaned or disinfected (mattresses, carpeting, cosmetics, stuffed animals, and baby toys). Remove all drywall and insulation that has been in contact with flood waters. Clean hard surfaces (flooring, countertops and appliances) thoroughly with hot water and soap or a detergent.

Return to as many personal and family routines as possible.

FILING A FLOOD INSURANCE CLAIM

- When filing your claim, be prepared with: the name of your insurance company, your policy number and a telephone number or e-mail address where you can be reached.
- Take photos of any water in the house and damaged personal property.
 Adjusters need evidence of the damage and damaged items to prepare your repair estimate.
- Make a list of all damaged or lost items and include their age and value where possible.

RECOVERING EMOTIONALLY

You may be surprised at how you and others feel after a disaster. It can stir up a variety of unanticipated feelings, and they are as important to address as bodily injuries, damaged homes, and possessions. Almost everyone is apt to be upset. People may fear that the worst isn't yet over. They may worry about their safety or that of a loved one. They may feel shock, disbelief, grief, anger, or guilt. Memory lapses, anxiety, and depression are also possible. Children, senior citizens, people with disabilities and people for whom English is not their first language are especially at risk and may need extra attention. It is important to calmly let them know that they are safe and that you will help. Reassurance from a competent adult can help people recover more quickly and completely.





AFTER A FLOOD

RECOVERING EMOTIONALLY

Some basic steps you can take to meet emotional needs:

- Try to return to as many of your normal routines as possible.
- Get rest and drink plenty of water.
- Limit your exposure to the sights and sounds of disaster, especially on television, the radio, and in the newspapers.
- Focus on the positive.
- Recognize your own feelings.
- Reach out and accept help from others.
- Do something you enjoy, like familiar get-togethers in the past.
- Stay connected with your family or other supporters.
- Realize that recovery can take time.
- If you have more questions or observe behavior in your dependents that concerns you, contact a counselor or community professional for additional information and help.

HELPING PETS

Pets can become upset and react to a disaster in unusual ways, such as spraying urine, defecating on floors or scratching/biting furnishings. Since pets will need regular care and attention to help them calm down, try to leave pets with a family member, friend, veterinarian or boarding facility while you are dealing with other challenges. Animals are naturally inquisitive and could be injured if they are brought back to a damaged home.

If you have pets, try to find and comfort them. Handle animals carefully and calmly.

- Use toys, a blanket or favorite human's unsoiled clothing to comfort pets.
- Make sure pets are fed their usual diet, and have plenty of water.
- Visit your pets regularly, speak calmly and take some time out to play with them. Caring for pets can help you in your recovery, as well.





HEAT **ADVISORY**

HEAT ADVISORY IN THE UNITED STATES

Extreme heat can be dangerous or even life-threatening for people, especially the elderly, people with chronic illnesses, the young (under age four) and those who are overweight. It is the number one weather-related killer. On average, more than 1,500 people in the U.S. die each year from excessive heat. Common-sense preparations can save lives.

HEAT WAVE TERMS

- Heat Index or "Apparent Temperature" An estimate of the temperature that the body feels when the effects of heat and humidity are combined. Note that exposure to direct sunlight can increase the heat index by as much as 15° Fahrenheit.
- Excessive Heat Outlook A heat wave may develop in the next 3 to 7 davs.
- Excessive Heat Watch Conditions are favorable for a heat wave (high Heat Index) in the next 12 to 48 hours.
- **Heat Advisory** An uncomfortable, potentially dangerous heat wave (daytime highs = $100-105^{\circ}$ F) is forecast within the next 36 hours.
- Excessive Heat Warning A dangerous heat wave (daytime highs = 105-110° F) is forecast within the next 36 hours.





HEAT **ADVISORY**

BEFORE A HEAT ADVISORY

Pay attention and be prepared to respond to official warnings about extreme heat in your area:

- If you have air-conditioning make sure it works properly. It's best to have it checked every year before the weather gets hot.
- If air conditioning is not possible, have at least one or more fans on hand to help sweat evaporate and cool your body.
- Keep in mind that while electric fans may provide comfort, they will not necessarily prevent heat-related illness during periods of extreme heat.
- Weather-strip doors and sills to keep cool air in.
- Cover windows that receive morning or afternoon sun with drapes, shades, awnings, or louvers. Outdoor awnings or louvers can reduce the heat that enters a home by up to 80%.
- Prepare temporary window reflectors between windows and drapes, such as aluminum foil-covered cardboard, to reflect heat back outside.
- If you have a chronic medical condition, consult with your primary-care provider and pharmacist to learn how your body is likely to respond to excessive heat and to the sorts and quantities of fluids you are apt to drink.
- Be prepared for first aid treatments of heat-induced illnesses.

HEAT WAVE TERMS

- Heat Index or "Apparent Temperature" An estimate of the temperature that the body feels when the effects of heat and humidity are combined. Note that exposure to direct sunlight can increase the heat index by as much as 15° Fahrenheit.
- Excessive Heat Outlook A heat wave may develop in the next 3 to 7 days.
- Excessive Heat Watch Conditions are favorable for a heat wave (high Heat Index) in the next 12 to 48 hours.
- Heat Advisory An uncomfortable, potentially dangerous heat wave (daytime highs = 100-105° F) is forecast within the next 36 hours.
- Excessive Heat Warning A dangerous heat wave (daytime highs = 105-110° F) is forecast within the next 36 hours.





HEAT ADVISORY

DURING A HEAT ADVISORY

Pay attention and respond to official warnings about extreme heat in your area. Stay indoors as much as possible, and avoid exerting yourself outdoors. If you are home, stay on the lowest floor out of the sun, where typically it's coolest. If air conditioning is not possible, use fans to help sweat evaporate and cool your body. Keep in mind that while electric fans may provide comfort, they will not necessarily prevent heat-related illness during periods of extreme heat.

- Cover windows that receive morning or afternoon sun with drapes, shades, awnings, or louvers. Outdoor awnings or louvers can reduce the heat that enters a home by up to 80 percent.
- Install temporary window reflectors between windows and drapes, such as aluminum foil-covered cardboard, to reflect heat back outside.

Consider going to a cool building (e.g. shopping mall, community center, library) during the hottest hours of the day. If you must be outside, reduce heat exposure.

- Limit outdoor activity to morning and evening hours.
- Cut down on exercise. If you must exercise, drink two to four glasses of cool, nonalcoholic fluids each hour. A sports beverage can replace the salt and minerals you lose in sweat. Warning, if you are on a low-salt diet, talk with your doctor before drinking a sports beverage.
- Try to rest often in shady areas.
- Protect yourself from the sun by wearing a wide-brimmed hat (which will also keep you cooler) as well as sunglasses and by putting on sunscreen of SPF 15 or higher (the most effective products say "broad spectrum" or "UVA/UVB protection" on their labels).





HEAT ADVISORY

DURING A HEAT ADVISORY

Drink plenty of water and other fluids to help keep your body cool, even if you don't feel thirsty. Avoid excessive intake of caffeine and alcoholic beverages (particularly beer), which can be dehydrating. Eat small, light frequent meals. Avoid excessive protein or heavy foods. Wear light, loose-fitting warm-weather clothing; avoid layers of clothing. Take frequent cool showers, baths or sponge baths. Never leave anyone - including pets - in a closed vehicle even for brief periods of time. Temperatures in automobiles can climb to 130° F within minutes and can be lethal.

Be aware that some prescription medications may interfere with the body's natural ability to regulate temperature or may inhibit sweat production. Check with your doctor of pharmacist for these and other possible side effects. Beware of heat-related illnesses. Be ready to administer appropriate first aid.

CONSIDER OTHERS

Extreme heat can be especially hard on children and the elderly. Never leave them in a closed vehicle even for brief periods of time. Consider the elderly and people with chronic medication conditions. Adjusting to temperature changes may be especially hard for them; so be alert to their special needs. Check on elderly friends and neighbors and others who are at risk of heat-related illnesses at least twice a day.

CONSIDER PETS

- Make sure pets have plenty of water and access to shade or cooler environments.
- Be careful not to over-exert any pets during outdoor activities (especially older animals and dogs with thick fur). They can succumb to heat exhaustion and heat stroke much more quickly than humans.
- Never leave pets in a closed vehicle, even for very short periods.





HEAT ADVISORY

AFTER A HEAT ADVISORY

- Check on the elderly, people with chronic medication conditions, and pets.
- Adjusting to temperature changes may be especially hard for them; so be alert to their special needs. Be prepared for first aid treatments of heatinduced illnesses.
- Use the chart below to help determine the physical impact of a heat advisory:



HEAT **ADVISORY**

CATEGORY	SYMPTOMS	FIRST AID
Sunburn	Skin redness and pain.Possible swelling, blisters, fever, headaches.	 Take a shower using soap to remove oils that may block pores, preventing the body from cooling naturally. Apply dry, sterile dressings to any blisters, and get medical attention. Do not break blisters.
Heat Cramps Muscular pains and spasms that are often the first signal that the body is having trouble with the heat.	 Painful spasms, usually in leg and abdominal muscles. Heavy sweating. 	 Get the victim to a cooler location. Lightly stretch and gently massage affected muscles to relieve spasms. Give sips of up to a half glass of cool water every 15 minutes. (Do not give liquids with caffeine or alcohol.) Do not administer salt tablets. Check for signs of heat stroke or exhaustion. Discontinue liquids, if victim is nauseated.
Heat Exhaustion When body fluids are lost through heavy sweating, blood flow to the skin increases, causing a decrease in blood flow to vital organs. A form of mild shock results. If not treated, the victim's condition will worsen. Body temperature will keep rising and the victim may suffer heat stroke.	 Heavy sweating but skin may be cool, pale, or flushed. Weak pulse. Normal body temperature is possible, but temperature will likely rise. Fainting or dizziness, nausea, vomiting, exhaustion, and headaches are possible. 	 Get victim to lie down in a cool place. Loosen or remove clothing. Apply cool, wet clothes. Fan or move victim to air-conditioned place. Give sips of water if victim is conscious. Be sure water is consumed slowly. Give half glass of cool water every 15 minutes. Discontinue water if victim is nauseated. Seek immediate medical attention if vomiting occurs.
Heat Stroke or "Sun Stroke" A life-threatening condition. The victim's temperature control system, which produces sweat to cool the body, stops working. If the body is not cooled quickly, body temperature can rise so high that brain damage and death may result.	 High body temperature (105+); hot, red, dry skin; rapid, weak pulse; and rapid shallow breathing. Victim will probably not sweat unless victim was sweating from recent strenuous activity. Possible unconsciousness. 	 Call 911 or emergency medical services, or get the victim to a hospital immediately. Use extreme caution. Delay can be fatal. Move victim to a cooler environment. Removing clothing. Use fans and air conditioners. Try a cool bath, sponging, or wet sheet to reduce body temperature. Watch for breathing problems. Administer CPR if the person becomes unconscious.





Hurricane landfall predictions include a margin of error. A storm that is 72 hours from landfall has a 300-mile margin of error. A storm that is 48 hours from landfall has a 200-mile margin of error. The range falls to 100 miles when the storm is 24 hours away. Although other areas are more vulnerable to hurricanes, Virginia has experienced several with sufficient severity to result in Presidential Disaster Declarations, including Hurricanes Fran, Bonnie, Dennis, and Floyd, 1996-99. Hurricane Isabel in 2003 was the most costly disaster in Virginia history.

HURRICANE TERMS

- **Hurricane Watch:** Hurricane conditions (winds exceeding 74 mph, storm surge, heavy rain, tornadoes and flooding) are possible within 36 hours.
- Hurricane Warning: Hurricane conditions are expected within 24 hours.

BEFORE A HURRICANE

- Listen to a NOAA Weather Radio for critical information from the National Weather Service (NWS).
- Check your disaster supplies (emergency kit) and replace or restock as needed.
- Bring indoors anything that can be picked up by the wind (bicycles, lawn furniture).
- Close windows, doors and shutters. If you do not have hurricane shutters, close and board up windows and doors with plywood.
- Turn the refrigerator and freezer to the coldest setting, and keep them closed as much as possible so that food will last longer if the power goes out.
- Turn off propane tanks and unplug small appliances.
- Learn about emergency support contacts and services on- and off-campus.
- Prepare to evacuate well before the full strength of a hurricane arrives or when recommended by local authorities.
 - Review your plan for evacuating and for getting back in touch with friends and family.
 - Be sure housemate plans are coordinated. Discussing and practicing the plan minimizes confusion and fear during an incident.
 - Keep your car's gas tank full.
 - Plan routes to local shelters, with careful attention to special medical needs as as well as pets. Be ready to take them with you.
 - Be careful to avoid flash floods, underwater roads or washed out bridges.
- Because standard insurance doesn't cover flooding, it's important to have protection from the floods associated with storms. For more information on flood insurance, visit the National Flood Insurance Program website.





DURING A HURRICANE

- Whenever possible, evacuate to a safe place, far from a hurricane's predicted path, well before its full force arrives.
- If hurricane conditions already exist outside your location, stay put and shelter-inplace.
- Find shelter as best you can right where you are, and wait it out.
- The most violent conditions are likely to pass in 24 hours or less, though the recovery may take much longer, days or even weeks.

AFTER A HURRICANE

IMMEDIATELY AFTER A HURRCANE

- Have injuries treated by a medical professional. Small wounds may be washed with soap and water and then bandaged to reduce the risk of infection. Replace bandages if they become soiled, damaged, or waterlogged. See medical emergencies for more information.
- Remain calm. Pace yourself. You may find yourself in the position of taking care of other people. Listen carefully, and deal patiently with urgent situations first.
- Check with local authorities to learn if your residence is safe to enter. Doors
 or windows may be cordoned off with yellow tape to indicate damage. Do
 not cut or walk past the tape unless local authorities advise that it is safe to
 do so. If a structure bears a color-coded sign, do not enter it until you get
 official information about what the sign means and advice about the safety
 of entering.





AFTER A HURRICANE

GENERAL GUIDELINES

- Continue listening to a NOAA Weather Radio or the local news for the latest updates.
- Stay alert for extended rainfall and subsequent flooding even after the hurricane or tropical storm has ended.
- If you evacuated, return home only when officials say it is safe.
- Drive only if necessary and avoid flooded roads and washed out bridges.
- Keep away from loose or dangling power lines and report them immediately to the power company.
- Stay out of any building that has water around it.
- Inspect your home for damage. Take pictures of damage, both of the building and its contents, for insurance purposes.
- Use flashlights in the dark. Do NOT use candles.
- Avoid drinking or preparing food with tap water until you are sure it's not contaminated.
- Check refrigerated food for spoilage. If in doubt, throw it out.
- Wear protective clothing and be cautious when cleaning up to avoid injury.
- Watch animals closely and keep them under your direct control.
- Use the telephone only for emergency calls

BEFORE RETURNING

Preparing to return home after evacuating will keep you safer while inspecting and cleaning up the damage to your home. Before traveling, ensure local officials have declared that it's safe to enter your community and that you have the supplies you will need. Exercise due caution in returning to, inspecting, and cleaning your home.





AFTER A HURRICANE

BEFORE RETURNING

- Find out if it is safe to enter your community or neighborhood. Follow the advice of your local authorities.
- Carry plenty of cash. ATMs may not work and stores may not be able to accept credit or debit cards.
- Bring supplies such as flashlights, batteries, bottled water and nonperishable foods in case utilities are out.
- Create back-up communication plans with family and friends in case you are unable to call from affected areas.
- Plan for delays when traveling. Bring extra food, water, pillows, blankets and other items that will make the trip more comfortable. Keep the fuel tank of your vehicle as full as possible in case gas stations are crowded, out of fuel or closed.
- Carry a map to help you route around heavy traffic or impassable roads.
- Find out if local medical facilities are open and if emergency services are functioning. Do NOT call 9-1-1 or the local emergency number to do this.
- Understand that recovery takes time. Focus on the positive and have patience. Others will have similar frustrations.





AFTER A HURRICANE

FIRST INSPECTION

- Return home only when officials have declared the area safe.
- If possible, leave children and pets with a relative or friend. If not, keep them away from hazards and floodwater.
- Before entering your home, look outside for damaged power lines, gas lines, foundation cracks and other exterior damage. It may be too dangerous to enter the home. If power lines are down outside your home, do not step in puddles or standing water.
- Approach entrances carefully. Parts of your home may be collapsed or damaged. See if porch roofs and overhangs have all their supports.
- Check the ceiling and floor for signs of sagging. Water may be trapped in the ceiling, or floors may be unsafe to walk on.
- Beware of snakes, insects and other wildlife that may have come into your home with the floodwater.
- If you smell natural gas or propane, or hear a hissing noise, leave immediately and contact the fire department.
- If your home was flooded, assume it is contaminated with mold. Mold increases health risks for those with asthma, allergies or other breathing conditions.
- Open doors and windows. If the house was closed more than 48 hours, let it air it out before staying inside for any length of time.
- Turn the main electrical power and water systems off until you or a professional can ensure that they are safe. NEVER turn the power on or off, or use an electrical tool or appliance while standing in water.
- Contact your local or state public health department for specific recommendations for boiling or treating water in your area after a disaster as water may be contaminated.





AFTER A HURRICANE

USING ALTERNATIVE SOURCES OF ENERGY

The primary hazards to avoid when using alternate sources for electricity, heating or cooking are carbon monoxide poisoning, electric shock and fire. When using a portable generator, connect the equipment that you want to power directly to the outlets on the generator. Do not connect a portable generator to a home's electrical system. Never use a generator, grill, camp stove or other gasoline, propane, natural gas or charcoal-burning devices inside a home, garage, basement, crawlspace or any partially enclosed area. Locate the unit away from doors, windows and vents that could allow carbon monoxide to come indoors.

- If you are considering getting a generator, get advice from a professional, such as an electrician.
- Make sure that the generator you purchase is rated for the power that you think you will need.
- Wear protective clothing, including rubber gloves and rubber boots.

CLEANING YOUR HOME

During cleanup, wear protective clothing, including rubber gloves and rubber boots. Be careful when moving furnishings or debris, because they may be waterlogged and heavier. Materials such as cleaning products, paint, batteries, contaminated fuel and damaged fuel containers are hazardous. Check with local authorities for assistance with disposal to avoid risk. Some cleaning solutions can cause toxic fumes and other hazards if mixed together. If you smell a strong odor or your eyes water from the fumes or mixed chemicals, open a window and get out of your home. Throw out items that absorb water and cannot be cleaned or disinfected (mattresses, carpeting, cosmetics, stuffed animals and baby toys). Remove all drywall and insulation that has been in contact with flood waters. Clean hard surfaces (flooring, countertops and appliances) thoroughly with hot water and soap or a detergent. Return to as many personal and family routines as possible.

Make sure your food and water are safe.

- Throw out all food, beverages and medicine exposed to flood waters and mud, including canned goods and containers with food or liquid that have been sealed shut, water bottles, plastic utensils and baby bottle nipples. When in doubt, throw it out.
- Do not use water that could be contaminated to wash dishes, brush teeth, prepare food, wash hands, make ice or make baby formula.





AFTER A HURRICANE

FILING AN INSURANCE CLAIM

- When filing your claim, be prepared with: the name of your insurance company, your policy number and a telephone number or e-mail address where you can be reached.
- Take photos of any water in the house and damaged personal property.
 Adjusters need evidence of the damage and damaged items to prepare your repair estimate.
- Make a list of all damaged or lost items and include their age and value where possible.

RECOVERING EMOTIONALLY

You may be surprised at how you and others feel after a disaster. It can stir up a variety of unanticipated feelings, and they are as important to address as bodily injuries, damaged homes, and possessions. Almost everyone is apt to be upset. People may fear that the worst isn't yet over. They may worry about their safety or that of a loved one. They may feel shock, disbelief, grief, anger, or guilt. Memory lapses, anxiety, and depression are also possible. Children, senior citizens, people with disabilities and people for whom English is not their first language are especially at risk and may need extra attention. It is important to calmly let them know that they are safe and that you will help. Reassurance from a competent adult can help people recover more quickly and completely.

Some basic steps you can take to meet emotional needs:

- Try to return to as many of your normal routines as possible.
- Get rest and drink plenty of water.
- Limit your exposure to the sights and sounds of disaster, especially on television, the radio, and in the newspapers.
- Focus on the positive.
- Recognize your own feelings.
- Reach out and accept help from others.
- Do something you enjoy, like familiar get-togethers in the past.
- Stay connected with your family or other supporters.
- Realize that recovery can take time.





AFTER A HURRICANE

HELPING PETS

- Pets can become upset and react to a disaster in unusual ways, such as spraying urine, defecating on floors or scratching/biting furnishings. Since pets will need regular care and attention to help them calm down, try to leave pets with a family member, friend, veterinarian or boarding facility while you are dealing with other challenges. Animals are naturally inquisitive and could be injured if they are brought back to a damaged home.
- If you have pets, try to find and comfort them. Handle animals carefully and calmly.
- Use toys, a blanket or favorite human's unsoiled clothing to comfort pets.
- Make sure pets are fed their usual diet, and have plenty of water.
- Visit your pets regularly, speak calmly and take some time out to play with them. Caring for pets can help you in your recovery, as well.





In the United States, lightning is an extremely common event. Only a tiny percentage of strikes (about 300 of 25 million each year) have been shown to cause injuries, but those injuries can be severe and the number of undocumented cases is surely higher. Judging from the average number of fatalities (about 60 per year), lightning is more deadly than tornadoes, floods, or hurricanes. A particularly dramatic strike occurred at Virginia Tech on August 27, 2000, while 55,000 fans filled Lane Stadium. Fortunately, no one was hurt. Nevertheless, because lightning usually causes few casualties and relatively minor property damage, the risk may be too easily underestimated.

At the first clap of thunder, go to a large building or fully enclosed vehicle and wait 30 minutes after the last clap of thunder before you go back outside. Lightning is dangerous. With a common-sense plan, you can greatly increase your safety.

BEFORE LIGHTNING

- If you can hear thunder, you are within striking distance. Seek safe shelter immediately!
- At the first clap of thunder, go to a large building or fully enclosed vehicle and wait 30 minutes after the last clap of thunder before you go back outside.
- Learn to recognize the signs of a developing storm.
- Thunder and lightning storms are most likely on spring or summer days (May through August), but they can occur year round.
- Often the first signs are towering clouds, dark skies and distant rumbles of thunder or flashes of lightning.
- With heat from the sun, pockets of warming air start to rise and vertical, cauliflower-shaped, cumulus clouds form.
- Know where you'll find shelter (a building or vehicle).

BE ALERT

- Monitor local weather conditions with an AM/FM or dedicated weather radio.
- Watch for developing thunderstorms.
- When you first see lightning or hear thunder, be prepared to implement your plan.
- Since lightning often precedes rain, don't wait for rain or lightning before taking cover. Lightning can strike as far as 10 miles from the area where it is raining. That's about the distance you can hear thunder. When you see lightning, count the time until you hear thunder. If that time is 30 seconds or less, the thunderstorm is within six miles of you, and it's dangerous!





BEFORE LIGHTNING

MINIMIZE THE RISK OF BEING STRUCK OUTDOORS

- Most lightning deaths and injuries occur in the summer, when people are apt to be outdoors.
- Leaders of outdoors events should have a written plan that all staff are aware of and enforce.
- Stop outdoor activities at the first sound of thunder to ensure everyone has time to get to a large building or enclosed vehicle.

MINIMIZE RISKS INDOORS

- Most lightning deaths and injuries occur in the summer, when people are apt to be outdoors.
- Leaders of outdoors events should have a written plan that all staff are aware of and enforce.
- Stop outdoor activities at the first sound of thunder to ensure everyone has time to get to a large building or enclosed vehicle.

DURING LIGHTNING

STAY ALERT

As thunder or lightning approaches:

- Monitor local weather conditions with an AM/FM or dedicated weather radio.
- Recognize the signs of an oncoming thunder and lightning storm: towering clouds with a cauliflower shape, dark skies and distant rumbles of thunder or flashes of lightning.
- Do not wait for lightning to strike nearby before taking cover. Lightning can strike as far as 10 miles from the area where it is raining. That's about the distance you can hear thunder. When you see lightning, count the time until you hear thunder. If that time is 30 seconds or less, the thunderstorm is within six miles of you, and it's dangerous!





DURING LIGHTNING

SEEK SHELTER

- Look for a large, enclosed building. That's the best choice.
- If you are in a car and it has a hard top, stay inside and keep the windows rolled up.
- If you are swimming, fishing or boating and there are clouds, dark skies and distant rumbles of thunder or flashes of lightning, get to shore immediately and seek shelter.
- Avoid small sheds and lean-tos or partial shelters, like pavilions.
- Stay at least a few feet away from open windows, sinks, toilets, tubs, showers, electric boxes and outlets, and appliances. Lightning can flow through them and "jump" to a person.
- Do not shower or take a bath during a thunder or lightning storm.
- Avoid using regular, land-line telephones, except in an emergency. If lightning hits the telephone lines, it could flow to the phone. Because they are not connected directly to the building's wiring, cell or cordless phones are safe to use.
- Insofar as possible, unplug appliances and electronic equipment, including antenna connections.

IF YOU ARE CAUGHT OUTSIDE

If you are unable to reach a safe building or car:

- If your skin tingles or your hair stands on the end, a lightning strike may be about to happen. Crouch down on the balls of your feet with your feet close together. Keep your hands on your knees and lower your head. Get as low as possible without touching your hands or knees to the ground. DO NOT LIE DOWN!
- If you are in a boat and cannot get to shore, crouch down in the middle of the boat. Go below if possible.
- If you are on land, find a low spot away from trees, metal fences, pipes, tall or long objects.
- If you are in the woods, look for an area of shorter trees. Crouch down away from tree trunks.





DURING LIGHTNING

HELP VICTIMS

There is no danger to anyone helping a person who has been struck by lightning — no electric charge remains. So, lightning victims are safe to touch and need urgent medical attention. Get emergency medical help as soon as possible. Call 911. If more than one person is struck by lightning, treat persons who are unconscious first. They are at greatest risk of cardiac arrest.

- A person struck by lightning may appear dead, with no pulse or breath. Prompt, proper first aid could save their lives.
- If the person is unresponsive or not breathing, start cardiopulmonary resuscitation (CPR) immediately.
- Consider an Automatic External Defibrillator (AED), if one is available
- Treat those who are injured but conscious next. Common injuries from being struck by lightning are burns, wounds and broken bones. Loss of hearing or eyesight and other nervous system damage may also be expected.

AFTER LIGHTNING

Stay indoors at least 30 minutes after the last clap of thunder before you go back outside. Help victims. There is no danger to anyone helping a person who has been struck by lightning — no electric charge remains. So, lightning victims are safe to touch and need urgent medical attention.

IF SOMEONE IS STRUCK BY LIGHTNING

If someone is struck by lightning

Get emergency medical help as soon as possible. Call 911. If more than one person is struck by lightning, treat persons who are unconscious first. They are at greatest risk of cardiac arrest

- A person struck by lightning may appear dead, with no pulse or breath. Prompt, proper first aid could save their lives.
- If the person is unresponsive or not breathing, start cardiopulmonary resuscitation (CPR) immediately.
- Consider an Automatic External Defibrillator (AED), if one is available





AFTER LIGHTNING

IF SOMEONE IS STRUCK BY LIGHTNING

Treat those who are injured but conscious next. Common injuries from being struck by lightning are burns, wounds and broken bones. Loss of hearing or eyesight and other nervous system damage may also be expected.





A tornado is a violently swirling column of air, a "funnel cloud" that stretches from the base of a thunderstorm down to the ground. In mere minutes, it can level a swath as large as one mile wide and fifty miles long. Winds up to 300 miles per hour can crush sturdy structures, uproot trees, and turn heavy objects like cars or utility poles into unguided missiles.

Although tornadoes are more common on the Great Plains, they have been reported in every state. They tend to touch down rarely (only once in every five to ten years) and in no particular sector of the New River Valley more than another. But they have been nonetheless severe. A 1987 twister caused nearly 3 million dollars worth of damage in Montgomery County. The risk of tornados is greatest around Blacksburg from April through June, but they can occur from March through October.

It is vital to understand that forecasts of extreme weather can be helpful but will never be absolutely perfect. Actual conditions may turn out better or worse than predicted, and they may change too late to broadcast.

TORNADO TERMS

Tornado Watch: Conditions favor the development of a tornado. Be prepared. Tornadoes are possible in and near the watch area. Be ready to act quickly if a warning is issued or if you see a tornado approaching. Review plans; check supplies and your safe room. Acting early helps to save lives!

Tornado Warning: A tornado has been sighted or indicated by weather radar. Tornado warnings indicate imminent danger to life and property. Go immediately under ground to a basement, storm cellar or an interior room (closet, hallway or bathroom).





LEVELS OF SECURITY

Category	Category Description	Level of Damage
F-0	Gale Tornado, 40-72 MPH	Gale Tornado, 40-72 MPH
F-1	Moderate Tornado, 73-112 MPH	Roof surfaces peeled off; mobile homes pushed off foundations or overturned; moving autos pushed off roads.
F-2	Significant Tornado, 113- 157 MPH	Roofs torn off frame houses; mobile homes demolished; box cars pushed over; large trees snapped or uprooted; light-object projectiles generated.
F-3	Severe Tornado, 158-206 MPH	Roofs and some walls torn off well-constructed houses; trains overturned; most trees in forest uprooted; heavy cars lifted off the ground and thrown.
F-4	Devastating Tornado, 207- 260 MPH	Well-constructed houses leveled; structures with weak foundations relocated; cars thrown and large projectiles generated.
F-5	Incredible Tornado, 261- 318 MPH	Strong frame houses lifted off foundations and carried considerable distance to disintegrate; automobile-sized projectiles hurtle through the air in excess of 100 yards; trees debarked; other incredible phenomena expected.





BEFORE A TORNADO

During any storm, listen to local news or a NOAA Weather Radio to stay informed about watches and warnings.

- A tornado WATCH means conditions favor the development of a tornado. Be prepared to take shelter.
- A tornado WARNING means that a tornado has been spotted. Take shelter immediately.

Keep informed on current weather conditions, especially during tornado season.

- If you are indoors at home, at work, or even in a vehicle bear in mind that local radio and television stations may be your best source of tornado warnings. They normally interrupt regular programming to broadcast warnings and watches along with instructions to seek shelter.
- People in areas where they have a problem hearing outside sirens should consider investing in a weather radio or just an ordinary inexpensive portable radio and remember to keep it on as severe weather approaches. Weather radios are available in several models and price ranges.
- The National Weather Service posts information on severe weather watches, warnings, and advisories online for the whole United States, with updates every ten minutes.

Prepare for high winds by removing diseased and damaged limbs from trees. Move or secure lawn furniture, trash cans, hanging plants or anything else that can be picked up by the wind and become a projectile.

KNOW YOUR COMMUNITY'S WARNING SYSTEM

Communities have different ways of warning residents about tornados.

- For Virginia Tech, ensure that your notification information is updated on the Alert System. It provides text and voice messaging and email notifications.
- Many communities, including the Blacksburg campus, have sirens to signal that people outdoors should seek shelter.





BEFORE A TORNADO

PREPARE TO TAKE COVER

Prepare to find shelter immediately and receive local updates.

- During tornado season, if you are teaching, hosting or managing any group of people, add checking the weather forecast to your preparation list and announce emergency procedures at the start of your meetings.
- Persons with mobility concerns should seek shelter at the time of a tornado watch DO NOT wait for a tornado warning.

Identify a safe room in your home where household members and pets may gather during a tornado. This should be a basement, storm cellar or an interior room on the lowest floor with no windows.

- Practice periodic tornado drills so that everyone knows what to do if a tornado is approaching.
- Consider having your safe room reinforced.

WATCH FOR TORNADO DANGER SIGNS

- Dark, often greenish sky
- A large, dark, low-lying cloud, especially if rotating
- Cloud of debris
- Funnel cloud a visible rotating extension of the cloud base
- Large hail
- Loud roaring noise, similar to a freight train.





DURING A TORNADO

When there is a tornado warning or you see one, take shelter immediately! A tornado WARNING means not just that severe weather is likely but also that a tornado has actually been spotted nearby. Find and stay in a safe place right away.

- REMAIN CALM. AVOID PANIC. There is no guaranteed safe place during a tornado, but you will minimize your exposure by finding shelter in the best possible location.
- AREAS TO SEEK rooms and corridors in the innermost part of a building at the lowest level possible. Close all doors, including main corridors insofar as possible. Crouch near the floor or under heavy, well-supported objects and cover your head.
- AREAS TO AVOID stay clear of windows, corridors with windows, or large freestanding expanses, such as auditoriums and cafeterias. DO NOT use elevators during a tornado warning.

IF YOU HEAR ABOUT AN OFFICIAL WARNING

When the National Weather Service issues an official tornado warning, the University will activate the outdoor warning system and broadcast an Alert. If you hear it or otherwise know a tornado warning is in effect, immediately take shelter.

- Do not wait until you see the tornado. Resist the temptation to go outside and check conditions for yourself. If you know of others in the building and severe weather warnings are issued; spread the word.
- Be mindful of workmates, family or friends who may be hearing impaired or those who may not hear tornado warnings because they are sleeping, watching TV or listening to music.
- NEVER pull a fire alarm during a tornado warning unless there is a fire. Otherwise, people may flee a relatively safe building and expose themselves to blowing debris.

The safest place to be is an underground shelter, basement, or designated safe room. If no underground shelter or safe room is available, a small, windowless interior room or hallway on the lowest level of a sturdy building is the safest alternative.

- Mobile homes are not safe during tornadoes or other severe winds.
- Do not seek shelter in a hallway or bathroom of a mobile home.
- If you have access to a sturdy shelter or a vehicle, abandon your mobile home immediately.
- Go to the nearest sturdy building or shelter immediately, using your seat belt if driving.





DURING A TORNADO

IF YOU ARE CAUGHT OUTDOORS

Seek shelter in a basement, shelter, or sturdy building. If you cannot quickly walk to a shelter:

- Immediately get into a vehicle, buckle your seat belt and try to drive to the closest sturdy shelter.
- If flying debris occurs while you are driving, pull over and park. Now you have the following options as a last resort:
- Stay in the car with the seat belt on. Put your head down below the windows, covering with your hands and a blanket if possible.
- If you can safely get noticeably lower than the level of the roadway, exit your car and lie in that area, covering your head with your hands.
- Your choice should be driven by your specific circumstances.

IF YOU ARE IN:	THEN:
A structure (e.g. residence, small building, school, nursing home, hospital, factory, shopping center, high-rise building)	Go to a pre-designated shelter area such as a safe room, basement, storm cellar, or the lowest building level. If there is no basement, go to the center of an interior room on the lowest level (closet, interior hallway) away from corners, windows, doors, and outside walls. Put as many walls as possible between you and the outside. Get under a sturdy table and use your arms to protect your head and neck. Do not open windows.
A vehicle, trailer, or mobile home	Get out immediately and go to the lowest floor of a sturdy, nearby building or a storm shelter. Mobile homes, even if tied down, offer little protection from tornadoes.
The outside with no shelter	 Lie flat in a nearby ditch or depression and cover your head with your hands. Be aware of the potential for flooding. Do not get under an overpass or bridge. You are safer in a low, flat location. Never try to outrun a tornado in urban or congested areas in a car or truck. Instead, leave the vehicle immediately for safe shelter. Watch out for flying debris. Flying debris from tornadoes causes most fatalities and injuries.





IMMEDIATELY AFTER A TORNADO

- Have injuries treated by a medical professional. Small wounds may be washed with soap and water and then bandaged to reduce the risk of infection. Replace bandages if they become soiled, damaged, or waterlogged.
- Remain calm. Pace yourself. You may find yourself in the position of taking care of other people. Listen carefully, and deal patiently with urgent situations first.
- Check with local authorities to learn if your residence is safe to enter. Doors or
 windows may be cordoned off with yellow tape to indicate damage. Do not cut or
 walk past the tape unless local authorities advise that it is safe to do so. If a structure
 bears a color-coded sign, do not enter it until you get official information about what
 the sign means and advice about the safety of entering.

GENERAL GUIDELINES

If you are away from home, return only when authorities say it is safe to do so. Continue listening to local news or a NOAA Weather Radio for updated information and instructions.

- A tornado WATCH means conditions favor the development of a tornado. Be prepared to take shelter.
- A tornado WARNING means that a tornado has been spotted. Take shelter immediately.

Once the tornado warning has been allowed to expire or is cancelled, the University or local jurisdiction will forward this information.

If you smell gas or hear a blowing or hissing noise, open a window and get everyone out of the building quickly. From a safe distance, call 911. Use the telephone only for emergency calls. Avoid damaged buildings. Keep all of your animals under your direct control.

While checking out damage:

- Wear long pants, a long-sleeved shirt and sturdy shoes.
- Watch out for fallen power lines or broken gas lines and report them to the utility company immediately.
- Use battery-powered flashlights. Do NOT use candles.
- Take pictures of damage, both of the building and its contents, for insurance claims.
- Clean up spilled medications, bleaches, gasoline or other flammable liquids that could become a fire hazard. Check for injuries. If you are trained, provide first aid to persons in need.





BEFORE RETURNING

Preparing to return home after evacuating will keep you safer while inspecting and cleaning up the damage to your home. Before traveling, ensure local officials have declared that it's safe to enter your community and that you have the supplies you will need. Exercise due caution in returning to, inspecting, and cleaning your home.

- Find out if it is safe to enter your community or neighborhood. Follow the advice of your local authorities.
- Carry plenty of cash. ATMs may not work and stores may not be able to accept credit or debit cards.
- Bring supplies such as flashlights, batteries, bottled water and nonperishable foods in case utilities are out.
- Create back-up communication plans with family and friends in case you are unable to call from affected areas.
- Plan for delays when traveling. Bring extra food, water, pillows, blankets and other items that will make the trip more comfortable. Keep the fuel tank of your vehicle as full as possible in case gas stations are crowded, out of fuel or closed.
- Carry a map to help you route around heavy traffic or impassable roads.
- Find out if local medical facilities are open and if emergency services are functioning. Do NOT call 9-1-1 or the local emergency number to do this.
- Understand that recovery takes time. Focus on the positive and have patience. Others will have similar frustrations.

FIRST INSPECTION

- Return home only when officials have declared the area safe.
- If possible, leave children and pets with a relative or friend. If not, keep them away from hazards and floodwater.
- Before entering your home, look outside for damaged power lines, gas lines, foundation cracks and other exterior damage. It may be too dangerous to enter the home. If power lines are down outside your home, do not step in puddles or standing water.
- Approach entrances carefully. Parts of your home may be collapsed or damaged. See if porch roofs and overhangs have all their supports.
- Check the ceiling and floor for signs of sagging. Water may be trapped in the ceiling, or floors may be unsafe to walk on.





FIRST INSPECTION

- Beware of snakes, insects and other wildlife that may have come into your home with the floodwater.
- If you smell natural gas or propane, or hear a hissing noise, leave immediately and contact the fire department.
- If your home was flooded, assume it is contaminated with mold. Mold increases health risks for those with asthma, allergies or other breathing conditions.
- Open doors and windows. If the house was closed more than 48 hours, let it air it out before staying inside for any length of time.
- Turn the main electrical power and water systems off until you or a professional can ensure that they are safe. NEVER turn the power on or off, or use an electrical tool or appliance while standing in water.
- Contact your local or state public health department for specific recommendations for boiling or treating water in your area after a disaster as water may be contaminated.

USING ALTERNATIVE SORUCES OF ENERGY

- The primary hazards to avoid when using alternate sources for electricity, heating or cooking are carbon monoxide poisoning, electric shock and fire.
- When using a portable generator, connect the equipment that you want to power directly to the outlets on the generator. Do not connect a portable generator to a home's electrical system.
- If you are considering getting a generator, get advice from a professional, such as an electrician.
- Make sure that the generator you purchase is rated for the power that you think you will need.
- Wear protective clothing, including rubber gloves and rubber boots.
- Never use a generator, grill, camp stove or other gasoline, propane, natural gas or charcoal-burning devices inside a home, garage, basement, crawlspace or any partially enclosed area. Locate the unit away from doors, windows and vents that could allow carbon monoxide to come indoors.





CLEANING YOUR HOME

- During cleanup, wear protective clothing, including rubber gloves and rubber boots.
- Be careful when moving furnishings or debris, because they may be waterlogged and heavier.
- Materials such as cleaning products, paint, batteries, contaminated fuel and damaged fuel containers are hazardous. Check with local authorities for assistance with disposal to avoid risk.
- Some cleaning solutions can cause toxic fumes and other hazards if mixed together. If you smell a strong odor or your eyes water from the fumes or mixed chemicals, open a window and get out of your home.
- Make sure your food and water are safe.
- Throw out all food, beverages and medicine exposed to flood waters and mud, including canned goods and containers with food or liquid that have been sealed shut, water bottles, plastic utensils and baby bottle nipples. When in doubt, throw it out.
- Do not use water that could be contaminated to wash dishes, brush teeth, prepare food, wash hands, make ice or make baby formula.
- Throw out items that absorb water and cannot be cleaned or disinfected (mattresses, carpeting, cosmetics, stuffed animals and baby toys).
- Remove all drywall and insulation that has been in contact with flood waters.
- Clean hard surfaces (flooring, countertops and appliances) thoroughly with hot water and soap or a detergent.
- Return to as many personal and family routines as possible.

FILING AN INSURANCE CLAIM

- When filing your claim, be prepared with: the name of your insurance company, your policy number and a telephone number or e-mail address where you can be reached.
- Take photos of any water in the house and damaged personal property. Adjusters need evidence of the damage and damaged items to prepare your repair estimate.
- Make a list of all damaged or lost items and include their age and value where possible.





RECOVERING EMOTIONALLY

You may be surprised at how you and others feel after a disaster. It can stir up a variety of unanticipated feelings, and they are as important to address as bodily injuries, damaged homes, and possessions. Almost everyone is apt to be upset. People may fear that the worst isn't yet over. They may worry about their safety or that of a loved one. They may feel shock, disbelief, grief, anger, or guilt. Memory lapses, anxiety, and depression are also possible. Children, senior citizens, people with disabilities and people for whom English is not their first language are especially at risk and may need extra attention. It is important to calmly let them know that they are safe and that you will help. Reassurance from a competent adult can help people recover more quickly and completely.

Some basic steps you can take to meet emotional needs:

- Try to return to as many of your normal routines as possible.
- Get rest and drink plenty of water.
- Limit your exposure to the sights and sounds of disaster, especially on television, the radio, and in the newspapers.
- Focus on the positive.
- · Recognize your own feelings.
- Reach out and accept help from others.
- Do something you enjoy, like familiar get-togethers in the past.
- Stay connected with your family or other supporters.
- Realize that recovery can take time.

HELPING PETS

Pets can become upset and react to a disaster in unusual ways, such as spraying urine, defecating on floors or scratching/biting furnishings. Since pets will need regular care and attention to help them calm down, try to leave pets with a family member, friend, veterinarian or boarding facility while you are dealing with other challenges. Animals are naturally inquisitive and could be injured if they are brought back to a damaged home. If you have pets, try to find and comfort them. Handle animals carefully and calmly.

- Use toys, a blanket or favorite human's unsoiled clothing to comfort pets.
- Make sure pets are fed their usual diet, and have plenty of water.
- Visit your pets regularly, speak calmly and take some time out to play with them. Caring for pets can help you in your recovery, as well.





Most everyone has heard advice from Smokey the Bear: "Only YOU can prevent forest fires." That slogan is worth remembering when camping, picnicking, or hiking. Likewise, even children learn to recognize that matches are not for play. Nevertheless, every year forests and grassland are lost to blazes from entirely avoidable, manmade much more often than inevitable, natural causes. For example, on average in the U.S. people are to blame for six times as many wildfires as lightening.

It is worth remembering, too, that outdoor fires usually don't start deep in the wilderness, but instead close to home. The most common point of ignition is the landscaping around home and campus lawns. These particularly dangerous fires most often start, too, when people are careless. An ember from a single cigarette butt or a match, a smoldering leaf pile, a firecracker, or neglected barbecue can rapidly spread and cause horrific damage. Whether close to home or out in the woods, knowing how to prevent and respond to wildfires can greatly reduce their threat.

The New River Valley includes areas with high risk of wildfire. For example, the vast majority of Giles County is woodland. The particular type of trees, the pests that they host, ice and wind storms have added to debris on the ground, in effect, fuel awaiting ignition. Moreover, new housing continues to reach out into the countryside. This expanding "wildland-urban interface" is where wildfires are more likely both to happen and to harm residents. Wildlife habitats, timber stocks, and critical watersheds are also more at-risk.

Although giant, Western-style forest fires are apt to remain rare in the New River Valley, dozens of more frequent, smaller blazes consume significant acreage and fire-fighting resources each year. One particularly traumatic demonstration occurred in April, 2003. Despite a wet winter and spring, simultaneous fires burned a total of 242 acres on Draper Mountain in Pulaski County and on Poor Mountain in Montgomery County in a single week. The outdoor fires that most often plague the Virginia Tech campus, however, are in mulch piles ignited by careless smokers as they walk or drive by. They cause few injuries and little damage to property, but they also cause a lot of smoke, hassle, and expense, which is all the more bothersome because these fires can be prevented.





DON'T BURN DANGEROUS THINGS

Don't burn dangerous things

- Never burn pressurized containers such as spray cans. They may explode.
- Never put glass in a fire. Glass does not melt away; it only heats up and shatters, leaving dangerous slivers.
- Don't put aluminum cans in a fire. They do not burn. In fact, the aluminum only breaks down into smaller pieces and produces dust that can be harmful to breath.

REMEMBER: If what's left of smoke or fire is too hot to touch, it's too hot to leave!

SMOKING

- Use vehicle ashtrays or other receptacles that are specifically designed for smoking materials. Do not drop lit cigarettes, cigars, matches, or pipe tobacco on the ground.
- Never drop smoking materials onto brush, leaves, or areas that have been mulched.
- Do not smoke while riding or walking a horse or a bike because you never know where the ash will land.
- If necessary, grind out your cigarette, cigar, or pipe tobacco in the dirt never on a stump or log and carry out the butts.

BARBECUES

- Clear a 10-foot area around a barbecue. Especially in wilderness areas, it is best to cover the grill with non-flammable mesh, 3/4 inch or finer.
- When disposing of briquettes and ash outside, drown them with lots of water, stir well, and soak again. Be sure they are out cold!
- Whenever possible, place stove, fireplace and grill ashes in a metal bucket, soak them in water for two days, then bury them in the ground.

CAMPFIRES

• When picking a spot for a campfire, do not build a fire where it is too dry or windy or where campfires are prohibited. When permitted, choose a spot that is protected from gusts, and at least 15 feet from your tent and gear. Clear a 10-foot diameter area around the spot. Remove any grass, twigs, leaves and firewood. Make sure there is nothing flammable overhead like tree limbs. If there isn't already a pit, make one.





CAMPFIRES

- When making campfire pit, dig a hole in the ground, about a foot deep. Circle the pit with rocks. Place your unused firewood upwind and away from the fire. Keep a bucket of water and a shovel handy nearby. When you are ready to start the fire, wait until the match is cold, and discard it in the fire. Keep the fire to a manageable size. Make sure children and pets are supervised. Never leave the fire unattended.
- When you are ready to extinguish the campfire, if possible allow the wood to burn completely to ash. Pour lots of water on the fire until hissing sound stops. Drown all embers, not just the red ones. Scrape remaining sticks and logs to remove any embers. Stir embers and ashes with a shovel, and make sure that they are wet and cold to the touch. If you do not have water, use an ample supply of dirt or sand. Continue adding dirt or sand and stirring until all material is cool. Remember: do not simply bury the fire because it will continue to smolder and could ignite roots will eventually spread fire to the surface.

BURNING DEBRIS

- Comply with local regulations: Contact the local fire department well in advance to find out if burning is allowed or if a permit is required.
- Keep it legal. It is illegal to burn most synthetic waste, such as tires or plastics.
- Check the weather forecast. Call the local fire department on the day that you plan to burn to confirm that the fire danger level is low enough. Weather such as gusty winds could unleash a wildfire.
- Choose a safe site. A safe site will be far away from power lines, overhanging limbs, buildings, automobiles, and equipment. Vertical clearance must be at least three times the height of the pile. Heat rises far above visible flames. Horizontal clearance must be at least twice the height of the debris pile.
- Prepare the site correctly. The ground around the burn site should be surrounded by gravel or bare dirt for at least ten feet in all directions. During the burn, keep the area watered down.





BURNING DEBRIS

- If using a burn barrel, make sure it is properly equipped. Burn Barrels must all-metal, in good condition (free of rust on the sides or bottom), and properly ventilated. The Burn Barrel must be properly vented, for example, with three evenly-spaced, three-inch square vents around the rim near ground level. Each vent must be backed by a metal screen. A Burn Barrel must have a metal top screen with mesh size of ¼-inch or finer to keep sparks from escaping and potentially igniting a wildfire. When burning, layer the different types of debris and stir often. Beware of sparks escaping when the fire is stirred.
- Stay on-site, tending your fire until you're sure it's completely out. To ensure it has been completely extinguished, drown the fire with water, turn over the ashes with a shovel, and drown it again. Repeat several times. Check the burn area regularly over the next several days and up to several weeks following the burn, especially, if the weather is warm, dry, and windy.

PREPARING YOUR HOME

- Talk with members of your household about how to prevent wildfires and what to do if one threatens your home.
- Learn about hazards in your area.
- Post emergency phone numbers by every phone.
- Make sure driveways and entrances clearly display your address.
- Maintain a smoke detector on each level of your home, especially near bedrooms. Test them monthly, and change batteries at least once each year.
- Plan and practice evacuation.
- Design and landscape with wildfire safety in mind. Select materials and plants that
 can help contain fire rather than fuel it. Use fire resistant or non-combustible
 materials on the roof and exterior structure of the dwelling. For example, treat
 combustible roof, siding, decking or trim with UL-approved fire-retardant chemicals.
 Plant fire-resistant shrubs and trees. For example, hardwood trees are less
 flammable than evergreens. Regularly clean roofs and gutters. Use only wellmaintained, UL-approved wood-burning devices.





PREPARING YOUR HOME

- Inspect chimneys at least twice a year, and clean them at least once a year.
- Keep dampers in good working order.
- Equip chimneys and stovepipes with a spark arrester that meets local code. Contact the local fire department for exact specifications, such as National Fire Protection
 Association Code 211.
- Maintain 1/2-inch mesh screen beneath decks and floors in the home itself as well as attic openings. Consider adding protective shutters, heavy fire-resistant drapes, and a portable gasoline-powered pump, in case electrical power is cut off. Prepare to handle small fires before emergency responders arrive.
- Keep tools handy that can be used to fight fire: a ladder that will reach the roof, a rake, axe, handsaw or chainsaw, bucket, and shovel.
- Identify and maintain an adequate outside water source such as a small pond, cistern, well, swimming pool, or hydrant.
- Have a garden hose that is long enough to reach any area of the home and other structures on the property.
- Install freeze-proof exterior water outlets on at least two sides of the home and near other structures on the property. Consider adding outlets at least 50 feet from the home.
- Create a safety zone around your home.
- Within 30 to 100 feet (100 feet or more in pine forest), reduce potential exposure to flames and radiant heat. Note: Standard protective measures may not suffice on a steep slope. Contact the local fire department or forestry of fire for additional information.
- Regularly, safely and legally recycle or dispose of waste off-site.
- Clear away flammable trash and vegetation, such as leaves and twigs.
- Remove dead branches that overhang the roof.
- Remove vines from exterior walls.





PREPARING YOUR HOME

- Thin a 15-foot space between tree crowns, and remove limbs within 15 feet of the ground.
- Prune branches and shrubs within 15 feet of a stovepipe or chimney outlet.
- Ask the power company to clear branches from power lines.
- Mow grass regularly.
- Store gasoline, oily rags and other flammable materials in approved safety cans. Place cans in a safe location away from the base of buildings.
- Stack firewood at least 100 feet away and uphill from your home. Clear combustible material within 20 feet of the stack.

MAINTAING GROUNDS

- Keep an eye on mulch beds, especially on dry afternoons, when fires are more likely to occur. Maintain a safe place to discard smoking materials, especially entrances to public buildings and in designated smoking areas. Do not use mulch in or near these areas. Provide at least 18-inch clearance between landscaping mulch beds and combustible building materials as well as electric devices, such as decorative lights. Insofar as possible, keep landscaping mulch moist, and consider substitutes, such as stones or crushed rock. Sparks from lawnmowers and power equipment DO start wildfires.
- Check equipment regularly.
- Be especially careful on hot, dry days.
- Maintain spark arrestors. They destroy or trap hot particles of carbon in engine exhaust, greatly reducing the risk of starting a wildfire.

DURING A WILDFIRE

Hear of wildfire in your area? Spot something smoldering outside — even just a landscape bed? Immediately, if you can, extinguish it or call 911.





DURING A WILDFIRE

GET READY TO EVACUATE

- If there are reports of a wildfire nearby, prepare to evacuate. Be ready to leave at a moment's notice.
- Confine pets, so that you can take them with you, if you need to leave quickly. Arrange for temporary housing at a friend or relative's home outside the threatened area. Put on protective clothing.
- Wear sturdy shoes, cotton or wool long pants and long-sleeved shirt, and gloves. Exposed skin is more vulnerable to ash and cinders.
- Bring a handkerchief to protect your face. Smoke can make it difficult to breathe and damage breathing passages.

STAY INFORMED

- Monitor local news broadcasts, and keep a lookout. Leave early, as soon as instructed
 and before it is essential. Waiting until the last minute, puts you at greater risk and
 interferes with emergency responders. Be sure that emergency kits for you,
 dependents, and pets are complete and loaded in the car. Back your car into the
 driveway park it in an open space facing the direction of escape.
- Roll up the windows.
- Place valuable papers, mementos and anything "you can't live without" inside the car, ready to go.
- Call an out-of-town contact and to explain what has happened and where you will be going, if/when you leave. Turn on outside lights, and leave a light on in every room to make the house more visible in heavy smoke.

PREPARE YOUR HOME

If — and only if — time permits, prepare your home. Shut off natural gas, propane or fuel oil supplies at the source. Reduce drafts.

- Close all windows and doors, including pet doors.
- Close garage doors, and disconnect electric openers, so doors can be opened by hand, even if the power goes out.
- Close shutters, blinds or heavy non-combustible window coverings to reduce radiant heat
- Open fireplace dampers, but close fireplace screens





DURING A WILDFIRE

PREPARE YOUR HOME

- Close outside attic, eave, and basement vents.
- Reduce combustibles. Move items such as wood piles, lawn furniture, or tarps as far as possible away from the house. Remove flammable drapes and curtains from interior windows.
- Prepare Water. Connect garden hoses. Fill pools, hot tubs, garbage cans, tubs or other large containers with water. If there are gas-powered pumps for water, make sure they are fueled and ready.
- Place a ladder against the house, in clear view.

IF YOU FIND YOURSELF EXPOSED TO SMOKE AND DUST

- Listen and watch for fire reports and air quality warnings. Use the recycle or recirculate mode on the air conditioner in your home or car. If you do not have air conditioning and it is too hot to stay inside with windows closed, seek shelter elsewhere. When smoke levels are high, keep the air indoors as clean as possible.
- Close windows and doors to prevent smoke outside from getting in.
- Do not use anything that burns and adds to indoor air pollution, such as candles, cigarettes, fireplaces and gas stoves. Don't smoke.
- Do not vacuum because it stirs up particles that are already inside.
- If you have asthma or another lung disease, follow your health-care provider's advice. If you symptoms worsen, seek medical care

IF FIRES APPROACHING OR AUTHORITES ADVISE YOU TO LEAVE

- Evacuate immediately! Head for safety, taking special care of dependents.
- Wear protective clothing.
- Leave doors and windows closed but unlocked. Firefighters may need a quick entry, and police will provide security.
- Take your pets with you.
- Choose an escape route that steers as clear of the fire as possible. Watch for changes in the speed and direction of fire and smoke. Continue to listen to local radio or TV for evacuation information.





DURING A WILDFIRE

IF YOU ENCOUNTER A WILDFIRE WHILE DRIVING

- Stay in your car. Though driving through wildfire is dangerous, it is much less dangerous than trying to run from a fire on foot. Do not run! Roll up windows and close air vents. Be prepared for discomfort.
- Engines may stall and be tough to restart.
- Air currents may rock the car.
- Some smoke and sparks may enter the vehicle.
- The temperature inside will increase. Metal gas tanks and containers rarely explode.
- Keep your vehicle as visible as possible.
 - Drive slowly with headlights on.
 - Avoid driving through heavy smoke.
 - Watch out for other vehicles and pedestrians.
- If you have to stop,
 - Avoid parking near heavy trees and brush.
 - Roll up windows and close air vents.
 - Turn the headlights on and the ignition off.
 - Get on the floor and cover up with a blanket or coat.
 - Stay in the vehicle until the main fire passes.

IF CAUGHT IN THE OPEN

The best temporary shelter is in a sparse fuel area. If a road is nearby, lie face down along the road cut or in the ditch on the uphill side. Cover yourself with anything that will shield you from the fire's heat. If hiking in the back country, seek an area, ideally a depression, with sparse fuel.

- On a steep mountainside, the back side is safer. Avoid canyons, natural chimneys and saddles.
- Clear fuel such as leaves and twigs, away from the area while the fire is approaching and then lie face down and cover yourself.
- Stay down until after the fire passes!





AFTER A WILDFIRE

RETURNING TO A HOME THAT YOU EVACUATED

- Do not enter your home until fire officials say it is safe. Avoid damaged or fallen
 power lines, poles and downed wires. Follow public health advice on personal
 protective equipment (PPE). For example, wear leather gloves and heavy-soled shoes
 to protect hands and feet. Wet debris down to minimize breathing dust particles.
 Beware of hot spots, which can flare up without warning.
- Check for embers on the roof first; then the attic. Douse hot spots.
- If a fire begins to break, ask your neighbors to help fight it. The water you set aside in advance will come in handy now. If the power is out, try connecting a hose to the outlet on your water heater.
- For several hours after the fire, maintain a "fire watch." Re-check for smoke and sparks throughout the house.
- Watch for ash pits and mark them for safety. Warn housemates and neighbors to stay clear. Keep animals under control, and watch them closely. Hidden embers and hot spots could burn paws or hooves. Properly dispose of cleaning products, paint, batteries, and damaged fuel containers to reduce threats to health and safety. Ensure your food and water are safe.
- Discard any food that has been exposed to heat, smoke ,or soot.
- Never use water that might be contaminated, even in small amounts, to wash dishes, brush teeth, prepare food, wash hands, make ice, or make baby formula.





Winter storms can range from very local but intense freezing rainfall to county — or even statewide blizzards. Low temperatures, precipitation, and strong winds can make roads dangerous or even impossible to travel, down power lines, and disrupt other services. Winter storms are among the most common of hazards for Virginia. They have prompted Presidential disaster declarations in dozens of Virginia jurisdictions once or twice every couple of years. In Blacksburg, record-setting snows have totaled more than three feet in just four or five days. Transportation and power lines are usually affected. Roads and debris must be cleared, but long-term damage is limited. Health and private property impacts are normally manageable, especially when the public takes due precautions.

BEFORE A WINTER STORM

WINTER STORM TERMS

- Winter Storm Advisory In the next 2 to 5 days wintery weather is expected to cause significant inconveniences and may become hazardous.
- Winter Storm Watch A winter storm is possible within the next 36 to 48 hours. Review your response plans and monitor weather reports.
- Winter Storm Warning Severe, potentially life-threatening winter conditions are occurring or will begin within 24 hours. Take precautions immediately.
- Blizzard Warning Sustained winds or frequent gusts of 35 miles per hour or higher with heavy falling or blowing snow (reducing visibility to less than a quarter mile) are expected to prevail for a period of three hours or longer.

CHECK YOUR EMERGENCY SUPPLIES

Be sure your kit includes enough non-perishable food and water (enough for you and your dependents and pets for at least 2-3 days), a battery-powered or hand-crank radio, extra flashlights and batteries. In anticipation of the cold, consider adding:

- Rock salt to melt ice on walkways.
- Sand to improve traction.
- Tools like a snow shovel and windshield scraper.
- Extra clothing and blankets.

For more kit ideas visit emergency.vt.edu





BEFORE A WINTER STORM

REVIEW YOUR EMERGENCY PLANS

- If you and your roommates, workmates, or family may not be together when the storm strikes, check to be sure that you share plans, including a way to contact one another and to get back together.
- Check on emergency plans at places where you or dependents spend time: work, daycare, and school. If no plan exists, consider volunteering to help create one.
- Know ahead of time what you should do to help disabled or elderly friends, neighbors, or coworkers.

MONITOR WEATHER CONDITIONS

- Refer to the Virginia Tech Status Page (vt.edu/status) often for university operational updates.
- Call the Virginia Tech inclement Weather Hotline 540-231-6668.
- Check the National Weather Service for weather watches, warnings, and advisories for Virginia.
- Check current local weather conditions and forecasts.
- For the latest Virginia road conditions, call 5-1-1 from any telephone in Virginia (Virginia Department of Transportation).

WHEN A WINTER STORM WATCH IS ISSUED

- Be alert to changing weather conditions.
- Listen to broadcast forecasts.
- Avoid unnecessary travel.

WHEN A WINTER STORM WARNING IS ISSUED

Stay indoors, but if you must go outside:

- Wear several layers of lightweight clothing. They will keep you warmer than a single heavy coat. Gloves or mittens and a hat that covers your ears will also prevent loss of body heat. A scarf that covers your mouth can help protect your lungs.
- Beware of slips and falls when walking on snowy, icy, walkways.





BEFORE A WINTER STORM

WHEN A WINTER STORM WARNING IS ISSUED

Avoid traveling by car, but if you must:

- Keep the gas tank full for emergency use and to keep the fuel line from freezing.
- Carry an Emergency Supply Kit in the car with you.
- Let someone know your destination, your route, and when you expect to arrive. If your car gets stuck along the way, help can be sent along your predetermined route.
- Conserve fuel, if necessary, by keeping your residence cooler than normal. Temporarily close off heat in spare rooms.

Eat regular meals and drink ample fluids, but avoid caffeine and alcohol.

Be careful with space heaters. All fuel-burning equipment should be vented to the outside and kept clear. Maintain ventilation to avoid build-up of toxic fumes. Refuel kerosene heaters outside, and keep them at least three feet from flammable objects. Familiarize yourself with what to do during a power outage.

Bring companion animals/pets inside. Move other animals or livestock to sheltered areas with drinking water that will remain thawed.

PREPARE YOUR CAR

Check to be sure:

- The gas tank is full (always over half) for emergency use and to keep the fuel line from freezing.
- There is an emergency kit on board.
- The antifreeze concentration is sufficient to avoid freezing.
- Battery and ignition systems are in good condition, and battery terminals are clean.
- Brake wear and fluid levels are OK.
- Exhaust system is free of leaks and crimped pipes.
- The heater, defroster, and cooling-system thermostat work properly.
- Lights (including flashing hazard lights) work properly.
- The level and weight of motor oil are correct. Heavier oils congeal more at low temperatures and do not lubricate as well.
- Tires have adequate tread. All-weather radials are usually6 adequate for most winter conditions. However, some jurisdictions require that vehicles on their roads be equipped with chains or snow tires with studs.
- Windshield wipers and washer work OK.





BEFORE A WINTER STORM

PREPARE YOUR HOME

Make sure your home is adequately insulated and that weather stripping around doors and windowsills will keep the warm air inside. Protect water pipes by:

- Insulate pipes (e.g., with foam or newspapers and plastic) and allow faucets to drip a little during cold weather to avoid freezing.
- Learn how to thaw pipes. If they freeze, remove any insulation or layers of newspapers and wrap pipes in rags. Completely open all faucets and pour hot water over the pipes, starting where they were most exposed to the cold or where the cold was most likely to penetrate.
- Learn how to shut off water valves, in case a pipe bursts.

Be careful with space heaters. The risk of house fires and asphyxiation increase in winter storms, when people tend to improvise heat sources without the necessary safety precautions.

- All fuel-burning equipment should be vented to the outside and kept clear. Maintain ventilation to avoid build-up of toxic fumes.
- Refuel kerosene heaters outside.
- Keep space heaters at least three feet from flammable objects.

Keep fire extinguishers on hand, and make sure everyone knows how to use them. Install carbon monoxide alarms in central locations on every level of your home and outside sleeping areas to provide early warning of accumulating carbon monoxide. Check the structural stability of the roof to sustain heavy weight from the accumulation of snow or water, if gutters or drains do not work.





DURING A WINTER STORM

TAKE CARE OF YOURSELF AND YOUR DEPENDENTS

Insofar as possible, stay put, safely indoors. Eat regular meals and drink ample fluids, but avoid caffeine and alcohol. Bring companion animals/pets inside. Move other animals or livestock to sheltered areas with non-frozen drinking water.

Conserve fuel, if necessary, by keeping rooms cooler than normal. Temporarily close off heat to spare rooms. Be careful with space heaters. The risk of house fires and asphyxiation increase in winter storms, when people tend to improvise heat sources without the necessary safety precautions.

- All fuel-burning equipment should be vented to the outside and kept clear. Maintain ventilation to avoid build-up of toxic fumes.
- Refuel kerosene heaters outside
- Keep space heaters at least three feet from flammable objects.
- Follow these power outage guides.

Keep fire extinguishers on hand, and make sure everyone knows how to use them. Protect water pipes.

- Insulate pipes (e.g., with foam or newspapers and plastic) and allow faucets to drip a little during cold weather to avoid freezing.
- If pipes freeze, shut them off to reduce the risk of bursting.
- To thaw frozen pipes, remove any insulation or layers of newspapers and wrap pipes in rags. Completely open all faucets and pour hot water over the pipes, starting where they were most exposed to the cold or where the cold was most likely to penetrate.

MONITOR CONDITIONS

- Refer to the Virginia Tech Status Page (vt.edu/status) often for university operational updates.
- Call the Virginia Tech inclement Weather Hotline 540-231-6668.
- Check the National Weather Service for weather watches, warnings, and advisories for Virginia.
- Check current local weather conditions and forecasts.
- For the latest Virginia road conditions, call 5-1-1 from any telephone in Virginia (Virginia Department of Transportation).





DURING A WINTER STORM

IF YOU MUST GO OUTSIDE

Dress for the weather. Wear several layers of loose fitting, lightweight, warm clothing rather than one heavy layer. Outer garments should be tightly woven and water repellent. Wear gloves or mittens (which are warmer than gloves). Wear a hat, preferably one that covers your ears. Covering your mouth with a scarf or your hand can help protect your lungs. Try not to speak unless necessary. Waterproof, insulated boots will keep your feet warm and dry and help with footing in ice and snow. Keep dry. Change wet clothing frequently to prevent a loss of body heat. Wet clothing loses all of its insulating value and transmits heat rapidly.

Avoid overexertion. For example, shoveling snow can bring on a heart attack, a major cause of death in the winter. If you must shovel, stretch before going outside. Watch for signs of frostbite. These signs include loss of feeling and white or pale appearance in extremities such as fingers, toes, ear lobes, and the tip of the nose. If symptoms are detected, get medical help immediately. Watch for signs of hypothermia. These include uncontrollable shivering, memory loss, disorientation, incoherence, slurred speech, drowsiness, and apparent exhaustion. If symptoms of hypothermia are detected:

- Get the victim to a warm location.
- · Remove wet clothing.
- Put the person in dry clothing, and wrap their entire body in a blanket,
- Warm the center of the body first.
- If the victim is conscious, give warm, non-alcoholic or non-caffeinated beverages.
- Get medical help as soon as possible.





DURING A WINTER STORM

IF YOU MUST DRIVE

Drive only as long as is absolutely necessary. Travel in the day, don't travel alone, and keep others informed of your schedule. Stay on main roads; avoid back-road shortcuts. If a blizzard traps you in the car:

- Pull off the highway. Turn on hazard lights and hang a distress flag from the radio antenna or window.
- Remain in your vehicle where rescuers are most likely to find you. Do not set out on foot unless you can see a building close by where you know you can take shelter. Be careful; distances are distorted by blowing snow. A building may seem close, but be too far to walk to in deep snow.
- Run the engine and heater about 10 minutes each hour to keep warm. When the
 engine is running, open a downwind window slightly for ventilation and periodically
 clear snow from the exhaust pipe. This will protect you from possible carbon
 monoxide poisoning.
- Exercise to maintain body heat, but avoid overexertion. In extreme cold, use road maps, seat covers, and floor mats for insulation. Huddle with passengers and use your coat for a blanket.
- Take turns sleeping. One person should be awake at all times to look for rescue crews.
- Drink fluids to avoid dehydration.
- Be careful not to waste battery power. Balance electrical energy needs (lights, heat, and radio) with supply.
- Turn on the inside light at night so work crews or rescuers can see you.
- If stranded in a remote area, stomp large block letters in an open area spelling out HELP or SOS and line with rocks or tree limbs to attract the attention of rescue personnel who may be surveying the area by airplane.
- If necessary, only after the blizzard passes, leave the car and proceed on foot.





AFTER A WINTER STORM

MONITOR CONDITIONS

- Refer to the Virginia Tech Status Page (vt.edu/status) often for university operational updates.
- Call the Virginia Tech inclement Weather Hotline 540-231-6668.
- Check the National Weather Service for weather watches, warnings, and advisories for Virginia.
- Check current local weather conditions and forecasts.
- For the latest Virginia road conditions, call 5-1-1 from any telephone in Virginia (Virginia Department of Transportation).

RETURNING TO NORMALCY AFTER A SEVERE WINTER STORM

- Recognize that recovering from a disaster will take time and effort. It is usually a
 gradual process. Safety is a primary issue, as are mental and physical well-being. Stay
 indoors, if possible. Protect yourself from frostbite and hypothermia by wearing
 warm, loose-fitting, lightweight clothing in several layers. If your home loses power or
 heat during periods of extreme cold, go to a designated public shelter. Avoid driving
 when conditions include sleet, freezing rain or drizzle, snow or dense fog.
- Before tackling strenuous tasks, consider your physical condition, the weather factors, and the difficulty of the task.
- Help people who require special assistance such as elderly people living alone, people with disabilities and children. Check on your animals and make sure that their access to food and water is not blocked by snow drifts, ice or other obstacles. If possible, bring them indoors.
- Be careful with alternative sources of energy for heat or cooking, including space heaters. The primary hazards to avoid are carbon monoxide poisoning, electric shock and fire.
- Never use a generator, grill, camp stove or other gasoline, propane, natural gas or charcoal-burning devices inside a home, garage, basement, crawlspace or any partially enclosed area. Locate unit away from doors, windows and vents that could allow carbon monoxide to come indoors.
- If your carbon monoxide alarm sounds, move quickly to a fresh air location outdoors or by an open window or door.
- Call for help from the fresh air location and remain there until emergency personnel.





AFTER A WINTER STORM

COLD RELATED EMERGENCIES

Cold related emergencies, like frostbite and hypothermia, may quickly threaten life or limb. Strategies to prevent cold-related emergencies include:

- Wear appropriate layers of clothing, a hat, and gloves. Avoid unnecessary exposure of any part of the body.
- Drink plenty of warm fluids or warm water, but avoid caffeine and alcohol.
- Don't start an activity in, on, or around cold water unless you know you can get help quickly, if you need it.
- Be aware of the wind chill, low temperatures and high winds.
- Stay active to maintain body heat.
- Take frequent breaks from the cold.
- Get out of the cold immediately if the signals of hypothermia or frostbite appear.

FROSTBITE

Frostbite is the freezing of a specific body part such as fingers, toes, the nose or earlobes. Symptoms of frostbite include:

- Lack of feeling in the affected area.
- skin that appears waxy, is cold to the touch, or is discolored (flushed, white or gray, yellow, or blue).

What to do for frostbite:

- Move the person to a warm place.
- Handle the affected area gently; never rub it.
- Warm gently by soaking the affected area in warm water (100–105 degrees F) until it appears red and feels warm.
- Loosely bandage the area with dry, sterile dressings.
- If the person's fingers or toes are frostbitten, place dry, sterile gauze between them to keep them separated.
- Avoid breaking any blisters.
- Do not allow the affected area to refreeze.
- Seek professional medical care as soon as possible.





AFTER A WINTER STORM

HYPTHERMIA

Hypothermia is another cold-related emergency. Hypothermia may quickly become life threatening due to the failure of the body's warming system. The goals of first aid are to restore normal body temperature and to care for any conditions while waiting for EMS personnel. Signals of hypothermia include:

- Shivering, numbness, glassy stare.
- Apathy, weakness, impaired judgment.
- Loss of consciousness.

What to do for hypothermia:

- CALL 911 or the local emergency number.
- Gently move the person to a warm place.
- Monitor breathing and circulation.
- Give rescue breathing and CPR if needed.
- Remove any wet clothing and dry the person.
- Warm the person slowly by wrapping in blankets or by putting dry clothing on the
 person. Hot water bottles and chemical hot packs may be used when first wrapped in
 a towel or blanket before applying. Do not warm the person too quickly, such as by
 immersing him or her in warm water. Rapid warming may cause dangerous heart
 arrhythmias. Warm the core first (trunk and abdomen), not the extremities (hands
 and feet). This is important to mention because most people will try to warm hands
 and feet first and that can cause shock.



PHYSICAL THREAT EMERGENCIES





TRUST YOUR INSTINCTS, REPORT WHAT YOU SEE

If you witness violence or threatening or suspicious behavior, immediately move away from the incident, and then dial 911 to summon the Virginia Tech Police Department. If you hear about an incident on campus, please stay away from that area.

WE REMEMBER

Virginia Tech hosts a number of activities and an annual Day of Remembrance to honor the 32 people who lost their lives on April 16, 2007. See We Remember and the Office of Recovery and Support.

We can also honor those lives by seizing every opportunity to keep our campus safe.

ACTS OF VIOLENCE AND THREATENING BEHAVIOR

A university attracts tens of thousands of people of many backgrounds and commitments, ranging from a single afternoon to entire careers. Campus is where they live, work, play, or just pass through. It is a place of intimacy as well as anonymity, where people can explore, discover, and confirm their values. They may lose their temper or find the love of their life. Inevitably, even if sadly, efforts to sustain such dynamic diversity in peace will be short of perfectly successful. So, it is essential to treat campus safety not as a given, but as a reward of common effort.

Every act or threat of violence on campus is a challenge to the entire community. Campus safety — preventing attacks and supporting recovery — is among the highest priorities of Virginia Tech.





BEFORE AN ACT OF VIOLENCE

TRUST YOUR INSTINCTS, REPORT WHAT YOU SEE

If you witness violence, threatening or suspicious behavior, immediately move away from the incident, and then dial 911 to summon the Virginia Tech Police Department. If you hear about an incident on campus, please stay away from that area. If you are experiencing a crisis and need someone to talk to, call the Suicide Hotline at 1-800-273-TALK (1-800-273-8255) and 1-800-799-4899 for TTY.

THREAT ASSESSMENT TEAM

The mission of the Threat Assessment Team is to determine if an individual poses a threat of violence to self, others, or the Virginia Tech community and when appropriate to intervene to decrease the threat. The team supports students, employees, visitors, as well as non-affiliated persons to increase safety and security at Virginia Tech.

If you have any concerns about someone's behavior, please contact one of the following offices to share your information:

Dean of Students Office 540-231-3787 Cook Counseling Center 540-231-6557 Virginia Tech Women's Center 540-231-7806 Virginia Tech Police Department 540-231-6411

DURING AN ACT OF VIOLENCE

WHEN YOU WITNESS VIOLENT, THREATENING, OR SUSPICIOUS BEHAVIOR

- Immediately move away from the incident.
- If you hear about an incident on campus, please stay away from that area.
- Dial 9-1-1 to contact the Virginia Tech Police Department.

If you are experiencing a crisis and need someone to talk to, call the Suicide Hotline at 1-800-273-TALK (1-800-273-8255) or 1-800-799-4899 for TTY.





DURING AN ACT OF VIOLENCE

REPORT WHAT YOUR SEE

Report violent, threatening, or suspicious behavior by calling 911. Provide as much information as possible and do not hang up until explicitly instructed to do so. Questions to expect include:

- WHERE: Where is the incident taking place? Where are you located? Where is the assailant?
- WHO: What does the assailant(s) look like? Do you recognize the assailant? Do you know his/her name?
- WHAT: What is the assailant carrying? What type of weapon(s) did you see? A handgun, rifle, or explosive? Was he or she carrying a backpack, bag, or carrying case? What did it look like? What did you hear before, during, and after the confrontation? Explosions? Gunshots?
- HOW: How is the assailant communicating? What language is being used? What threats or commands are being said?

AFTER AN ACT OF VIOLENCE

WHEN YOU WITNESS VIOLENT, THREATENING, OR SUSPICIOUS BEHAVIOR

- Immediately move away from the incident.
- If you hear about an incident on campus, please stay away from that area.
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AS SOON AS YOU ARE SAFELY AWAY FROM A VIOLENT OR THREATNING ENCOUNTER

- Have injuries treated by a medical professional.
- Small wounds may be washed with soap and water and then bandaged to reduce the risk of infection. Replace bandages if they become soiled, damaged, or waterlogged.
- Remain calm.
- Pace yourself. You may find yourself in the position of taking care of other people. Listen carefully, and deal patiently with urgent situations first.

COPING WITH EMOTIONS

You may be surprised at how you and others feel after a disaster. It can stir up a variety of unanticipated feelings, and they are as important to address as bodily injuries, damaged homes, and possessions. Almost everyone is apt to be upset. People may fear that the worst isn't yet over. They may worry about their safety or that of a loved one. They may feel shock, disbelief, grief, anger, or guilt. Memory lapses, anxiety, and depression are also possible. Children, senior citizens, people with disabilities and people for whom English is not their first language are especially at risk and may need extra attention. It is important to calmly let them know that they are safe and that you will help. Reassurance from a competent adult can help people recover more quickly and completely.





AFTER AN ACT OF VIOLENCE

COPING WITH EMOTIONS

Some basic steps you can take to meet emotional needs:

- Try to return to as many of your normal routines as possible.
- Get rest and drink plenty of water.
- Limit your exposure to the sights and sounds of the incident, especially on television, the radio, and in the newspapers.
- Focus on the positive.
- · Recognize your own feelings.
- Reach out and accept help from others.
- Do something you enjoy, like familiar get-togethers in the past.
- Stay connected with your family or other supporters.
- Realize that recovery can take time.

If you have more questions or observe behavior in your dependents that concerns you, contact a counselor or community professional for additional information and help.

WORKPLACE VIOLENCE

TRUST YOUR INSTINCTS

We cannot predict the origin of the next threat. Assailants in incidents across the nation have been students, employees, and visitors. In many cases there were no obvious specific targets and the victims were unaware that they were a target until attacked. Being aware of your surroundings, taking common sense precautions, and heeding any warning information can help protect you and other members of the community. Violent incidents such as an act of terrorism, an active shooter(s), assaults, or other forms of workplace violence can occur on or proximate to the university with little or no warning. Before workplace violence occurs, every campus office or department should perform an initial assessment to identify its particular workplace security issues. If that assessment determines university employees are at significant risk, the responsible manager or supervisor should contact the Virginia Tech Police Department for additional information and training.

For additional information on ways to recognize danger and to minimize the risk of violence at work, see Policy 5616 (Virginia Tech Human Resources) and Work Place Violence (Virginia Tech Environmental Health and Safety).





WORKPLACE VIOLENCE

POTENTIAL INDICATORS OF VIOLENCE

If one or more of the following is present, then the risk for potential violence is a little higher:

- Working alone at night and during early morning hours.
- Exchange of money or the availability of valued items such as money, jewelry, or prescription drugs.
- Working with patients, clients, customers, or students known or suspected to have a history of violence.
- Employees/former employees with a history of assaults or who exhibit belligerent, intimidating, or threatening behavior.
- Employees who have been the object of belligerent, intimidating, or threatening behavior.

IF YOU ENCOUNTER OR WITNESS ACTS OF VIOLENCE IN THE WORKPLACE

- Report the incident to the police as soon as you can, if they haven't already been contacted.
- Secure the area where the disturbance occurred. The area may be considered a crime scene, so leave everything untouched until the police arrive. Call for medical assistance if necessary. Call 911.
- If business must continue, shift personnel as needed to cover essential work functions.
- Be supportive. The victim(s), witnesses, and other employees may need access to critical incident debriefing or counseling. Contact Human Resources at 540-231-9331 for guidance or assistance as needed.





VIOLENCE

ABUSE OR VIOLENCE IN A PERSONAL RELATIONSHIP

TRUST YOUR INSTINCTS

When one person scares, hurts, or continually puts down the other person, it is abuse. Sources of support at Virginia Tech include:

Virginia Tech Police Department 911 or 540-231-6411

Dean of Students Office 540-231-3787

Cook Counseling Center 540-231-6557

Virginia Tech Women's Center 540-231-7806

Whether problems in a relationship include you or someone you know, whether abuse is obvious or not, learn to recognize and respond to warning signs. Patterns of abuse or violence can vary greatly in frequency and severity, from a single blow that may or may not strike the victim to chronic, severe battering. This type of violence can occur among heterosexual or same-sex couples and does not require sexual intimacy. It occurs in many forms:

- Physical abuse: hitting, slapping, kicking, choking, strangling, pushing, punching, beating.
- Verbal abuse: constant criticism, humiliating remarks, not responding to what the victim is saying, mocking, name-calling, yelling, swearing, interrupting, changing the subject.
- Sexual violence: forcing sex on an unwilling partner, demanding sexual acts that the victim does not want to perform.
- Isolation: making it difficult for the victim to see friends and relatives, monitoring phone calls, reading email, controlling where the victim goes, taking the victim's car keys.
- Coercion: making the victim feel guilty, pushing the victim into decisions, sulking, manipulating, always insisting on being right, making up impossible "rules" and punishing the victim for breaking them.

- Harassment: following or stalking, embarrassing the victim in public, constantly checking up on the victim, refusing to leave when asked.
- Threats and intimidation: threatening to harm the victim, family members and pets; using physical size to intimidate; shouting, keeping weapons and threatening to use them.
- Destruction of property: destroying furniture, punching walls, throwing things, breaking dishes, destroying victim's personal belongings.
- Self-destructive behavior: abusing drugs or alcohol, threatening self-harm or suicide, driving recklessly, deliberately doing things that will cause trouble.





ABUSE OR VIOLENCE IN A PERSONAL RELATIONSHIP

SIGNS OF ABUSE MAY INCLUDE

- Unrealistic expectations: No matter how hard the partner tries, the abuser is unsatisfied.
- Blaming others for his/her problems: Mistakes are blamed on others.
- Jealousy: A partner uses jealousy as a symbol of love.
- Lying: a partner changes truth or keeps secrets.
- Hypersensitivity: A partner is easily insulted or becomes very angry.
- Lacks respect for women: A partner says or treats women as inferior or stupid.
- "Dr. Jekyll/Mr. Hyde": A partner suddenly changes moods or breaks into a rage.
- History of abuse: If a partner was abusive to the last partner, there is a good chance abuse will happen again.
- Cruelty to animals or children: A partner shows insensitivity to pain and suffering of others.

THINK ABOUT HOW YOU ARE TREATED AND HOW YOU TREAT YOUR PARTNER. **ASK YOURSELF, DOES HE OR SHE:**

- Embarrass or make fun of you in front of your friends or family?
- Put down your goals and accomplishments?
- Make you feel like you are incapable of making a good decision?
- Use intimidation or threats to get you to comply?
- Tell you that you are or would be nothing without him/her?
- Treat you roughly; grab, push, pinch, shove, or hit you?
- Call you several times or show up, to make sure you are where you said you would
- Use drugs or alcohol as an excuse for saying or doing hurtful things?
- Blame you for how they fell or act?
- Pressure you sexually for things you don't want or are not ready for?
- Make you feel that there is no way out of the relationship?
- Prevent you from doing things you want to do, like spending time with friends or family?
- Try to keep you from leaving after a fight, or leave you somewhere after a fight to "teach you a lesson"?





ABUSE OR VIOLENCE IN A PERSONAL RELATIONSHIP

DO YOU:

- Sometimes feel scared of how your partner may act?
- Constantly make excuses to others for your partner's behavior?
- Believe that you could help your partner change if you could only change something about yourself?
- Try not to do anything that would cause conflict or make your partner angry?
- Feel as if, no matter what you do, your partner is never happy with you?
- Always do what your partner wants you to do instead of what you want?
- Remain with your partner because you are afraid of what your partner would do if you broke up?

IF YOUR PARTNER HAS BEEN VIOLENT WITH YOU

- Talk with someone about your experience. Having your partner abuse you is traumatic, and it is crucial to have support.
- Plan for safety.
- Know that you are not alone.
- You are not to blame.
- Get to know and use Emergency Support Contacts.
- Talk with a trusted family member, administrator, dean, or friend about what is happening in your relationship and, if possible, make arrangements to stay with a trusted person when needed.
- Keep a spare set of keys and some money in a place where you can get to them in a hurry.

IF YOU HAVE BEEN VIOLENT TOWARD YOUR PARTNER

- Know that you are not alone. Recent research indicates that 20-30% of college dating relationships have included incidents of verbal and physical abuse.
- Understand that violence is a learned behavior. Violent, abusive behavior can be changed.
- Take responsibility for what you've done. The first step toward making a change is to acknowledge that there is a problem that needs to be addressed.
- Seek professional help.





ABUSE OR VIOLENCE IN A PERSONAL RELATIONSHIP

IF YOU WANT TO HELP A FRIEND

- Listen and show support.
- Be careful not to blame the victim for the actions of others.
- Allow your friend to make choices about how they want to proceed.
- Avoid making judgments. In particular, avoid questions like "Why don't you end the relationship?"
- Remember that every situation is different.
- Get to know and use Emergency Support Contacts.
- Find someone that you can talk to about the situation.

FOR ADDITIONAL HELP

- Indicators of Potential Concern (VT Threat Assessment and Management)
- Campus and Community Resources to Stop Abuse in Relationships (Stop Abuse)

ACTIVE SHOOTER

An active shooter is considered to be a suspect or assailant whose activity is immediately causing serious injury or death. The incident can involve one or more shooters. It can be a close encounter or from a distance. It can be targeted at a student, faculty/staff, or a random victim. It might involve just one room or multiple locations. No two situations are alike. A shooting can occur anytime, anyplace, and involve anyone.

WHAT TO DO IF THERE IS AN ACTIVE SHOOTER OR ASSAILANT

You need to take immediate responsibility for your personal safety and security. If you are able, attempt to secure-in-place immediately. Try to remain calm as your actions will influence others. Have a survival mindset because the consequences are potentially catastrophic.





ACTIVE SHOOTER

WHAT TO DO IF YOU ARE IN AN UNSECURED AREA

If you find yourself in an open area, immediately seek protection. Here are three guidelines to follow:

- RUN: If you know the location of the shooter and there appears to be a safe route immediately available, then proceed quickly and safely. If you decide to evacuate, do not spend time convincing others. Encourage them if necessary, but keep moving. Do not attempt to remove injured person(s). Leave your belongings behind, you will be able to retrieve those items at a later time. Follow instructions of any first responders on scene as you exit.
- HIDE: If you decide not to run, and cannot secure-in place: try to place yourself somewhere out of view. Find an object large enough to shield you and provide protection from a bullet. If you choose to hide, leave yourself multiple exits to avoid cornering yourself.
- FIGHT: If running or hiding are no longer options, you should prepare yourself to fight back. This is dangerous, but depending on your situation, this could be your last option. If you find yourself in this situation act with extreme aggression. Take objects around you to utilize as improvised weapons. If your only option is to fight, commit to taking the shooter down, no matter what.

Remember, always use your best judgment. It is imperative to understand that this is general guidance. Every situation is unique and not every suggestion will apply. There are exceptions to all guidance and prescribed directions. Do what is necessary to protect yourself and others.

LAW ENFORCEMENT RESPONSE

- The Virginia Tech Police Department will immediately respond to the area, assisted by other local law enforcement agencies if necessary.
- Remember that help is on the way so try to remain calm.
- Law enforcement will first locate, contain, and stop the assailant(s).
- Remain inside a secure area. The safest place for you to be is in a secure room.
- The assailant may not flee when law enforcement arrives, but instead may target arriving officers.
- Once the threat is neutralized, Law Enforcement and Emergency Medical Services will begin care for victims and evacuation of the area. Be prepared to explain this to others.
- You may be searched, instructed to keep your hands on your head, or even placed in handcuffs. Do your best to cooperate.
- After evacuation, you may be taken to a triage or other holding area for medical care, interviewing, counseling, etc.





ACTIVE SHOOTER

REPORTING AN INCIDENT BY CALLING 911

When calling 911, DO NOT hang up! Be prepared to provide as much information as possible:

- WHERE: Where is the incident taking place? Where are you located? Where is the assailant?
- WHO: What does the assailant(s) look like? Do you recognize the assailant? Do you know his/her name?
- WHAT: What is the assailant carrying? What type of weapon(s) did you see? A handgun, rifle, or explosive? Was he or she carrying a backpack, bag, or carrying case? What did it look like? What did you hear before, during, and after the confrontation? Explosions? Gunshots?
- HOW: How is the assailant communicating? What language is being used? What threats or commands are being said?

SUSPICIOUS PERSONS

If you witness a person acting in an odd or unusual manner or if a person or situation makes you feel uneasy, trust your instincts and report it.

- Do not physically confront the person.
- Do not let anyone into a locked building or office.
- Do not block the person's access to an exit.
- Call 9-1-1. Provide as much information as possible about the person and his or her direction of travel.

THREAT ASSESSMENT TEAM

The mission of the Threat Assessment Team is to determine if an individual poses a threat of violence to self, others, or the Virginia Tech community and when appropriate to intervene to decrease the threat. The team supports students, employees, visitors, as well as non-affiliated persons to increase safety and security at Virginia Tech.

If you have any concerns about someone's behavior, please contact one of the following offices to share your information:

Dean of Students Office 540-231-3787 Cook Counseling Center 540-231-6557 Virginia Tech Women's Center 540-231-7806

Virginia Tech Police Department 540-231-6411





BOMB THREAT

Bomb threats are assumed to be real and considered a threat to the university. If you receive a threat of any kind, immediately dial 911.

Bomb threats are usually received by telephone, sometimes by note or letter. Most bomb threats are made by callers who want simply to create an atmosphere of anxiety and panic - but all calls must be taken seriously.

If you receive a threatening call, remain calm. Keep the caller on line as long as possible to learn as much as you can. You can ask questions as long as they don't anger the caller. If you can, activate caller ID and note whatever the telephone displays. Make a detailed, written record of the call. A useful checklist is available from the Virginia Tech Police Department or the U.S. Bureau of Alcohol, Tobacco and Firearms (BATF).

BE OBSERVANT

Note, for example, the exact time of the call and the caller's exact words. During the call, if you can, note or ask the following:

- When is the bomb going to explode?
- Where is the bomb?
- What does it look like?
- What kind of bomb is it?
- What will cause it to explode?
- Did you place the bomb?
- If so, why?
- Where are you calling from?
- What is your name?
- What is your address?

Also take note of the following qualities and characteristics of the caller's voice:

- Calm, angry, excited, or stressed
 An accent
- Slow or rapid
- Crying
- Slurred, stutter, or lisp
- Deep or high
- Loud or quiet
- Giggling

- Sincere
- Squeaky
- Disguised
- Did the voice sound familiar? If so, who did it sound like?
- Any background noises (machinery, traffic, other voices, music, television, etc.)?





BE OBSERVANT

Immediately after the call ends, contact the Virginia Tech Police Department by calling 911. In addition:

- Notify your supervisor.
- If the threat was left on voice mail, do NOT erase it.
- Do NOT activate the building alarm system to evacuate.

IF YOU RECEIVE A THREATENING EMAIL OR MESSAGE

- Immediately contact the VT Police by dialing 911.
- Do NOT delete the email.
- Forward the email as directed by public safety officers.
- Do NOT activate the building alarm system to evacuate.

If a written threat of an explosive device or other danger is received, contact the police immediately by calling 540-231-6411 (for Blacksburg campus) or 911. The threat should never be ignored. Once a threat is recognized, unnecessary handling should be avoided, but try to preserve evidence such as fingerprints, handwriting or typewriting, paper, and postal marks, which are essential to tracing the threat and identifying the author.





HARASSING CALLS AND MESSAGES

Each year members of the University community are victimized by harassing phone calls and messages. Most of these calls, which fall into several categories (obscene, no one on the line, solicitation, surveys), can be stopped by hanging up quickly and quietly. Here are a few ground rules:

- Don't answer questions that make you feel uncomfortable.
- If you don't want to talk, say so or hang up.
- Don't give the caller any indication that you may be alone.
- Don't let the caller know that he/she has upset you.
- If the caller indicates that he/she is an official, ask for a number or address where they can be reached.
- Contact the Virginia Tech Police Department at 540-231-6411 or the Blacksburg Police at 540-961-1150 to initiate a log of times and dates of the call(s) and to note anything that you can distinguish about the caller (age, gender, voice, background noises, etc.).
- If the harassing caller leaves a message on your voice mail, do not delete the message.
- If calls persist, again contact the police, and if at any time you feel threatened dial 911. Often a pattern will emerge and the caller can be identified and charged.





ROBBERY

IN THE EVENT OF A ROBBERY

Avoid heroics. Try to remain calm and observant.

- Do NOT make sudden movements, introduce distractions, or act out in ways that draw attention, such as yelling or fainting.
- Do NOT argue or antagonize the robber, for example by stalling.
- Do NOT make him show his gun or assume his gun is a toy, even if it doesn't look real.
- Do NOT try to out-guess or out-think the robber.

When threatened with a robbery or assault, first protect yourself. Preserving property should be considered a distant second – valuable but also replaceable.

- Cooperate. Give the person exactly what he/she asks for and nothing more.
- Note distinguishing traits, such as:
- Color and type of clothing
- Hat or no hat
- Beard or moustache
- Skin color or distinctive markings
- Approximate height
- · Weight and age
- Note the type of any weapon that is used.
- Listen carefully to voice characteristics and to what is said.
- Note where the person headed after the confrontation. If possible, remember the type of vehicle and its license plate number.
- Report the incident to authorities. Dial 911 or use one of the other ways to report a crime provided by the Virginia Tech Police Department.





SUSPICIOUS MAIL OR PACKAGE

WHAT IS "SUSPICIOUS"?

Since 2001, there have been a limited number of incidents involving agents of terror (e.g., Anthrax and Ricin) sent through the mail. The following guidelines are intended to help identify suspicious materials and to provide procedures to follow in the event of receiving suspicious mail. A suspicious letter or package is one that is unexpected or unknown, with the following characteristics:

- Excessive postage.
- Misspellings of common words.
- Excessive weight.
- Rigid envelope.
- Foreign mail, airmail, or special delivery.
- Hand written or poorly typed address.
- Restrictive markings such as confidential, personal, etc.

- Excessive securing material such as masking tape, string, etc.
- Incorrect titles.
- Oily stains or discoloration.
- Visual distractions.
- Lopsided or uneven.
- Titles but no names.
- No return address.
- Protruding wires or tinfoil.

PROCEDURES FOR SUSPICIOUS LETTER OR PACKAGE

If you receive a suspicious letter or package, immediately dial 911 or the Virginia Tech Police 540-231-6411. DO NOT cover, insulate, or place the package into a cabinet or drawer.

Do not investigate on your own. Do not shake or bump the package or letter. Isolate the package, placing it in a sealable plastic bag, if available. Calmly alert others in the immediate area and leave the area, closing the door behind you. Wash hands and exposed skin vigorously with soap and flowing water for at least 20 seconds. Antibacterial soaps that do not require water are not effective for removing anthrax or other threatening materials. Dial 911 and give the operator your exact location. Wait for police to respond. Do not leave the building unless instructed to do so by public safety personnel. A local dispatcher will initiate a response and contact other local, state and federal authorities, as appropriate.





GENERAL PRECAUTIONS FOR HANDLING MAIL

Any staff member who handles mail in bins, bags, or other bulk containers - either from the US Post Office or distributing to an entire department or a number of offices - must participate in a training program. If the package or letter is not suspicious, please adhere to the following guidelines:

- Face the package or mail away from you before opening it.
- Cover cuts or abrasions with bandages. If bandages are not sufficient, gloves are an alternative. Be aware that it is possible to have an allergic reaction to latex gloves. A better alternative is vinyl or nitrile gloves. Avoid gloves that are lined with powder.
- Wash your hands with soap and water (not waterless antibacterial soap) for at least 20 seconds after opening the mail.

PRANKS AND HOAXES

Pranks or hoaxes involving false threats of agents of terror, including Anthrax or Ricin, disrupt lives, create serious safety concerns, and tax valuable University and community resources. They create illegitimate alarm in a time of legitimate concern. The University and law enforcement authorities take all such actions very seriously. The University has adopted a "zero tolerance" policy and will aggressively investigate any such incidents. Any individual found responsible for such acts will be subject to University disciplinary action, up to and including separation from the University, and prosecution under State and Federal law.



MEDICAL EMERGENCIES





SEASONAL FLU

The flu is a contagious respiratory disease caused by a common group of viruses (influenza viruses). In the United States, "flu season" begins every fall and ends every spring, when an average of 5 to 20 percent of the population will show signs of infection. The flu that people so often get during that season is called "seasonal flu." Some influenza viruses can also infect birds, pigs, horses, seals, whales and other animals. Most people who get seasonal flu recover within a week or two and do not require medical treatment. The very young, the very old and the very sick are most likely to become seriously ill.

PANDEMIC FLU

Sometimes, a new type of flu virus may emerge to which people have no resistance. When this happens, it can spread more easily from person to person around the world in a very short time, causing serious illness and death. This is "pandemic flu." It is more serious than seasonal flu. 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. Unlike seasonal flu, there may not be a vaccine for pandemic flu until researchers and pharmaceutical companies are able to create one. Vaccine development depends on the scientific understanding of the specific virus causing the disease. If a vaccine is developed for pandemic flu, it will be a challenge to produce enough for everyone and dispense it to all the people that need it in a timely manner.

SYMPTOMS

The symptoms of pandemic flu are likely to be similar to those of seasonal flu, which are:

- 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)





HOW THE FLU SPREADS

Flu viruses spread mainly from person to person when people with influenza cough, sneeze, or touch things that others touch. People infected with common flu virus can spread it to others one day before symptoms develop and up to seven or more days after becoming ill. That means that you may be able to pass the flu to someone before you know you are sick and after you start to feel better.

WHAT IS THE DIFFERENCE BETWEEN A VACCINE AND AN ANTIVIRAL?

Vaccines are usually given as a preventive measure. Viral vaccines are usually made from killed or weakened versions of the live virus or pieces of the virus that stimulate an immune response to the virus. Once immunized with the weakened strain, the body produces antibodies that more effectively protect it from overall infection.

Antivirals are prescription drugs that decrease the ability of flu viruses to reproduce. While getting a flu vaccine each year is the first and most important step in protecting against flu, antiviral drugs are a second line of defense in the prevention and treatment of flu. Your health care provider will determine if antivirals are appropriate for your situation.

STAY HEALTHY

There are some actions that everyone can practice to slow the spread of the flu and reduce its impact, whether the viruses involved are seasonal or pandemic flu. Wash your hands. Frequent and proper hand washing can reduce or prevent the spread of the flu from one person to another. Wash your hands with soap and water for at least 20 seconds, or clean them with an alcohol-based hand sanitizer, or do both. For visibly soiled hands, first wash with soap and warm water. When using soap and water:

- Wet hands with water and apply an amount of soap recommended by the manufacturer.
- Rub hands together vigorously for at least 20 seconds, covering all surfaces of the hands and giving added attention to fingernails and surfaces where jewelry is worn.
- Rinse hands with water.
- Dry thoroughly with a disposable towel.
- Use a disposable towel to turn off faucet.

When using hand sanitizer (60 to 95% per alcohol):

- Use the amount of sanitizer directed in the instructions on the product.
- Rub thoroughly over all surfaces of the hands, including nail areas and between the fingers.
- Continue to rub until product dries.





STAY HEALTHY

Cover your mouth and nose with a tissue when you cough or sneeze, and clean your hands afterwards

- Use soap and water or an alcohol-based hand sanitizer (as above).
- If you don't have a tissue or handkerchief, cough or sneeze into the inside of your elbow or upper arm.
- Whenever possible, avoid coughing or sneezing into your hands.
- Keep your hands away from your eyes, nose and mouth to keep flu germs from entering your body.

Stay home if you are feeling sick. Get plenty of rest and drink lots of fluids. Avoid close contact with people who are sick. The flu virus is spread by respiratory droplets passed from one person to another. These droplets can pass among people in close contact. Avoid sharing objects - such as utensils, cups, bottles and telephones. If you must share, disinfect the objects before and after using them. Keep your living and work areas clean.

BEFORE A FLU EPIDEMIC

LEARN WHAT TO EXPECT IF A FLU OUTBREAK BECOMES A PANDEMIC

- In a pandemic, many people are likely to become ill at the same time.
- To reduce the chances of spreading the flu, infected people may be quarantined or separated from people who have not been exposed.
- Even healthy people who have been exposed to the virus may be isolated to protect others.
- Public transportation, gathering places, events, schools, and businesses may shut down, close, or be canceled.
- Community services and utilities may be disrupted.
- Health care services could become overwhelmed.

STAY INFORMED

Stay tuned to news and media reports on the flu. Seek information on public services that you use. Since those services may be suspended, plan for alternatives ahead of time. Follow updates provided by local public health authorities and personal health care providers.





STAY HEALTHY

Learn and practice healthy habits to help slow the spread of illnesses:

- Wash your hands thoroughly and often for at least 20 seconds.
- Cover your cough or sneeze with a tissue or use your sleeve.
- Stay home when you are sick.

STAY CONNECTED

• Collect and keep track of important contact information for people you may need to reach during a flu pandemic. In case of travel restrictions, prepare to stay in touch by telephone, e-mail, and other means.

PLAN AHEAD

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. Prepare for the possibility of reduced public services by identifying and offering alternative sources of help. 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 such as subways, buses, trains, and air travel may be limited.
- Think about how you handle stress and know your strengths. Take steps to plan for, get through, and recover from a flu pandemic.

PLANNING AT HOME

Store a two-week supply of food, water, and other essentials.

- Select foods that do not require refrigeration, preparation or cooking.
- Include formula for infants and dependent's special nutritional needs in your planning.
- Plan for your pets as well.
- 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 insurer 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.
- Ask if there are plans to close during a pandemic.

DURING A FLU EPIDEMIC

IF YOU GET SICK

If you experience flu-like symptoms — such as fever, coughing, body aches, runny nose, sore throat, nausea, vomiting or diarrhea — you should stay home. As much as possible avoid contact with other people to keep from spreading your disease. If you have severe illness or are at high risk for flu complications, the Centers for Disease Control (CDC) recommend that you seek professional medical care. Your health care provider can determine whether flu testing or treatment is needed.

Signs that you or someone you know (especially children) may need urgent medical attention include:

- Fast breathing or trouble breathing
- Bluish or gray skin color
- · Not drinking enough fluids
- · Severe or persistent vomiting
- Not waking up or not interacting
- Being so irritable that the child does not want to be held
- Flu-like symptoms improve but then return with fever and worse cough

In adults, warning signs that need urgent medical attention include:

- Difficulty breathing or shortness of breath
- Pain or pressure in the chest or abdomen
- Sudden dizziness
- Confusion
- Severe or persistent vomiting
- Flu-like symptoms improve but then return with fever and worse cough

Contact Schiffert Health Center at 540-231-6444 if you need medical assistance. Call 911 if you need immediate medical attention.





DURING A FLU EPIDEMIC

IF SOMEONE IN YOUR HOUSEHOLD GETS SICK

- People with flu-like symptoms should stay in a room separate from common areas and avoid contact with other members of the household as much as possible.
- Everyone should take steps to maintain natural resistance to infection.
- Eat a healthy and balanced diet.
- At the first sign of the flu, prevent dehydration by encouraging liquids, such as ice and easily digested foods such as soup and broth.
- Drink plenty of water.
- Exercise at least 3 times a week.
- · Manage stress.
- Get enough sleep and rest.
- To limit further exposure, choose one adult member of the household to be the caregiver for people who are ill.
- Consider having the person who is ill wear a facemask when they're in common spaces with other household members.
- Check with the person's health care provider about the potential need for antiviral or antibiotic treatment.
- Wear disposable gloves when in contact with or cleaning up body fluids.
- Minimize contact with surfaces that could spread disease.
- Keep everyone's personal items separate. Avoid sharing pens, papers, clothes, towels, sheets, blankets, food or eating utensils unless cleaned between uses.
- Regularly disinfect commonly touched surfaces around the home or workplace: door knobs, switches, handles, toys, computers, telephones, etc. Use a bleach solution that contains ¼ cup of bleach for every gallon of water or a commercially-produced surface disinfectant.
- Wash everyone's dishes in the dishwasher or by hand using very hot water and soap.
- Wash everyone's clothes in a standard washing machine as you normally would. Use detergent and very hot water, and wash your hands after handling dirty laundry.





AFTER A FLU EPIDEMIC

INCREASE YOUR PSYCHOLOGICAL RESILIENCE

Certain strategies can help you "bounce back" from difficult events and bring new emotional strengths:

- Identify how you cope with a crisis. Identify your coping strengths. What other crises have occurred in your life? How did they affect you? How did you cope? Did your coping style work? Are there other ways you might cope?
- Foster healthy attitudes and beliefs. Crises and difficult circumstances are stressful but can be overcome. Focus on finding solutions and ways to improve your situation.
- Choose nurturing and healthy behaviors. Identify your goals and move toward them, even though progress may seem slow at times. Take decisive action in protecting and preparing yourself and your loved ones, rather than letting the pandemic situation make your choices for you.

COPING WITH STRESS AND ANXIETY IN A PANDEMIC

Some ways that you can cope with stress and anxiety are:

- Get accurate information from reliable sources.
- Educate yourself about the flu pandemic.
- Maintain your normal daily routine, if you can.
- Exercise, eat well and rest.
- Stay active, both physically and mentally.
- Stay in touch with family and friends.
- Spend more time with your children. Talk with them (as is age appropriate) about flu.
- Maintain a hopeful outlook. Be prepared for things to get worse, but remember that authorities around the world are working hard to make things better.
- Find comfort in your spiritual and personal beliefs.
- Keep a sense of humor.





AFTER A FLU EPIDEMIC

PROFESSIONAL HELP

Seek professional mental health care for yourself or your loved ones if you or they experience:

- Loss of sleep, frequent nightmares or disruptive and intrusive thoughts.
- Feelings of depression or feelings that lead to an inability to engage in usual activities.
- Disorientation, extreme memory difficulties or losing awareness of time, date, and place.
- Hallucinations or delusions, such as hearing or seeing things that are not here, extremely unrealistic thinking, or excessive preoccupation with an idea or thought.
- A previously identified mental health condition recurs or becomes worse.

If these circumstances occur, contact your personal physician or mental health provider. If you are currently working with a mental health provider, ask how services will be provided during a pandemic, and consider or discuss how you might get needed support or assistance from family and friends. You can also find local mental health resources through the U.S. National Mental Health Information Center on-line or by calling the toll-free number 1-800-789-2647.





Immediately call 911 and tell the dispatcher about the person who needs attention:

- Gender
- Approximate age
- Nature of injury or illness
- Pertinent medical history (if known)
- Precise location

Do not move an injured person — unless there is immediate danger of further harm — until emergency medical personnel arrive.

- Keep the person warm.
- If possible, designate someone to direct emergency responders from the approach to the victim.
- If appropriately trained, give first aid until emergency medical personnel arrive and take over care of the victim.

BEFORE A MEDICAL EMERGENCY

Get a physical examination and get professional advice on reducing your health risks.

- Develop habits for promoting good health.
- Exercise regularly, eat balanced meals, and get enough sleep.
- If you don't smoke, don't start, and if you do smoke, quit.

Emphasize safety at home, especially in the kitchen, bathroom, and yard, where many accidents occur.

- Keep all medicines in child-proof containers and well out of children's reach.
- Safely store household cleaners and other poisonous materials.
- Never leave lawnmowers, snowblowers, or other power equipment running unattended.

Drive carefully.

- Make sure that all passengers wear safety belts.
- Adjust driving to traffic, road, and weather conditions.
- Secure children in child-safety seats. Check with local public safety office (e.g., the police department) to be sure that the seats are correctly installed.
- Never operate a vehicle if under the influence of alcohol or drugs.
- Check warning labels on all medications and beware of those that may impair your ability to drive or operate machinery.

Follow advisories and regulations on wearing life jackets on watercraft. Even strong swimmers can become incapacitated in an accident.





BEFORE A MEDICAL EMERGENCY

PREPARE FOR MEDICAL EMERGENCIES

The initial minutes after an injury or medical crisis can be the most important. Keep emergency phone numbers handy.

- By your main phone, post numbers for ambulance, police, and fire services (911 in most areas), your physician, poison control (800-222-1222), and a local hospital.
- Maintain and share with roommates a list of emergency contacts, such as family members.
- Program the name and phone number for someone who knows you and your medical history as "I.C.E" (In Case of Emergency) on your cell phone.

Maintain a well-stocked first-aid kit at home, at work, and in your vehicle.

- Keep a list of all your medications in your wallet, including drug names, strength, dosage form, regimen, and name and contact information for the doctor who prescribed them. Also list allergies, especially to medications and latex, which is often used in gloves that medical personnel wear.
- Wear a medical-alert bracelet or necklace, if you have a condition that emergency responders need to know about (e.g., asthma, bee sting allergy, epilepsy).
- Take a first-aid class. Training will not only help you stay calm and focused, but will also help you protect yourself and those around you in the event of an emergency.
- Know how to use and where to find Public Access Automatic External Defibrillators (AED).

AEDs are available around the Blacksburg campus. Contact the Virginia Tech Rescue Squad for detailed locations of AEDs in the building you frequent most.





AFTER A MEDICAL EMERGENCY

AFTER TRAUMATIC EVENTS

Traumatic events often cause feelings of helplessness, anxiety, and aggression. Such feelings can follow a medical emergency, whether you are a victim, a responder, or a bystander. It may take time, effort, special strategies, or some help before you feel better. There are many things you can do to cope with traumatic events, including talking to family, friends, and clergy for support. Consider seeking professional help if you feel sad or depressed for more than two weeks, or if you find yourself unable to take care of responsibilities to your school, family, or job.

After surviving a disaster or act of violence, people may feel dazed or even numb. They may also feel sad, helpless, or anxious. In spite of the tragedy, some people just feel happy to be alive. It is not unusual to have bad memories or dreams. You may avoid places or people that remind you of the disaster. You might have trouble sleeping, eating, or paying attention. Many people have short tempers and get angry easily. These are all normal reactions to stress.

You may have strong feelings right away. Or you may not notice a change until much later, after the crisis is over. Stress can change how you act with your friends and family. It will take time for you to feel better and for your life to return to normal. Allow yourself time to heal.

TAKE STEPS TO HELP YOU FEEL BETTER

There is no simple fix to make things better right away. But there are actions that can help you, your family, and your community heal. Try to:

- Follow a normal routine as much as possible.
- Eat healthy meals. Be careful not to skip meals or to overeat.
- Exercise and stay active.
- Help other people in your community as a volunteer. Stay busy.
- Accept help from family, friends, co-workers, or clergy. Talk about your feelings with them.
- Limit your time around the sights and sounds of what happened. Don't dwell on TV, radio, or newspaper reports on the tragedy.





AFTER A MEDICAL EMERGENCY

TAKE STEPS TO HELP YOU FEEL BETTER

Sometimes the stress can be too much to handle alone. Ask for help if you:

- Are not able to take care of yourself or dependents.
- Are not able to do your job.
- Use alcohol or drugs to get away from your problems.
- Feel sad or depressed for more than two weeks.
- Think about suicide.

If you or someone you know is having trouble dealing with the tragedy, ask for help. Talk to a counselor, your doctor, or community organization, such as the (1-800-273-TALK).