Heat Toolkit for New Hampshire Communities

This toolkit may be used to help meet the communication needs of public and environmental health practitioners, decision makers and interested public.

Tips to Prevent Heat-related Illnesses

- **Stay cool.** Keep your body temperature cool to avoid heat-related illness.
  - Stay in air-conditioned buildings as much as possible.
  - Find an air-conditioned shelter.
  - Do not rely on a fan as your primary cooling device.
  - Avoid direct sunlight.
  - Wear lightweight, light-colored clothing.
  - Take cool showers or baths.
  - Do not use the stove or oven to cook.
  - Check on those most at-risk twice a day.

- **Stay hydrated.** Because your body loses fluids through sweat, you can become dehydrated during times of extreme heat.
  - Drink more water than usual.
  - Don’t wait until you’re thirsty to drink more fluids.
  - Drink from two to four cups of water every hour while working or exercising outside.
  - Avoid alcohol or liquids containing high amounts of sugar.
  - Remind others to drink enough water.

- **Stay informed.** Stay updated on local weather forecasts so you can plan activities safely when it’s hot outside.
  - Check local news for extreme heat alerts and safety tips.
  - Learn the symptoms of heat illness.

Symptoms of Heat-related Illnesses:

**Heat Exhaustion**

- Heavy sweating
- Weakness
- Cold, pale, and clammy skin
- Fast, weak pulse
- Nausea or vomiting
- Fainting

**What You Should Do:**

- Move to a cooler location.
- Lie down and loosen your clothing.
- Apply cool, wet cloths to as much of your body as possible.
- Sip water.
- If you have vomited and it continues, seek medical attention immediately.
**Heat Stroke**

- High body temperature (above 103°F)*
- Hot, red, dry or moist skin
- Rapid and strong pulse
- Possible unconsciousness

**What You Should Do:**

- Call 911 immediately — **this is a medical emergency**.
- Move the person to a cooler environment.
- Reduce the person's body temperature with cool cloths or even a bath.
- Do **NOT** give fluids.

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**Key Facts:**

**About Climate Change and Extreme Heat**

- Climate change refers to any major change in climate or weather pattern which lasts for ten years or more. Examples include temperature, precipitation, or wind.
- As a result of the changing climate, serious weather events, such as heat waves, droughts, flooding, tropical cyclones, and rises in sea level, happen more often.
- Heat waves occur when temperatures reach unusually high levels compared with some historic averages for a specific area and remain high for a prolonged period.
- Droughts occur when a long period of time passes without enough rainfall.
- Humid or muggy conditions occur when hazy, damp air is trapped near the ground. This can add to the discomfort of high temperatures.
- A heat wave combined with a drought is a very dangerous situation that can cause serious health problems.

**The Connection between Climate Change, Extreme Heat and Health**

- A person suffers heat-related illness when their body’s temperature control system is compromised. Your body normally cools itself by sweating. But under some conditions, sweating just isn’t enough and your body’s temperature rises rapidly. When the humidity is high, sweat will not dry as quickly. This prevents your body from releasing heat quickly. Very high body temperatures may damage the brain or other vital organs.
- Adverse health effects from extreme heat events are the most common cause of weather-related deaths in the United States. On average, they cause more deaths each year than hurricanes, lightning, tornadoes, floods, and earthquakes combined.
- Heat also increases ground-level ozone concentrations, causing direct lung injury and increasing the severity of respiratory diseases such as asthma and chronic obstructive pulmonary disease.
- The following groups of people have a higher risk of experiencing negative health effects related to climate change.
  - People who are elderly, very young, disabled, poor, or live alone,
  - People with existing medical conditions such as heart disease or asthma, and
  - People who live in urban areas with high air pollution or in old buildings with poor cooling systems or with no air conditioning.
Vulnerable Populations:

People aged 65 and older are less likely to sense and respond to changes in temperature and should be given reminders.

- Stay in air-conditioned buildings as much as possible. Contact your local health department or locate an air-conditioned shelter in your area.
- Do not rely on a fan as your primary cooling device during an extreme heat event.
- Drink more water than usual and **don’t wait** until you’re thirsty to drink.
- Check on a friend or neighbor and have someone do the same for you.
- Don’t use the stove or oven to cook—it will make you and your house hotter.
- Wear loose, lightweight, light-colored clothing.
- Take cool showers or baths to cool down.
- Check the local news for health and safety updates.
- Seek medical care immediately if you have, or someone you know has, symptoms of heat-related illness such as muscle cramps, headache, nausea or vomiting.

Infants and children must rely on other people to keep them cool and hydrated.

- Never leave infants or children in a parked car.
- Dress infants and children in loose, lightweight, light-colored clothing.
- Seek medical care immediately if your child has symptoms of heat-related illness.

People with chronic medical conditions are less likely to sense and respond to changes in temperature, and certain medications can worsen the impact of extreme heat.

- Drink more water than usual and don’t wait until you’re thirsty to drink.
- Check on a friend or neighbor, and have someone do the same for you.
- Check the local news for health and safety updates regularly.
- Don’t use the stove or oven to cook—it will make you and your house hotter.
- Wear loose, lightweight, light-colored clothing.
- Take cool showers or baths to cool down.
- Seek medical care immediately if you or someone you know experiences symptoms of heat-related illness.

Low income families may not be able to afford air conditioning, access cooling shelters, or have adequate access to health care.

- If you have air conditioning, use it to keep your home cool.
- If you can’t afford to use your air conditioning:
  - Contact your local health department or locate an air-conditioned shelter in your area.
  - You can also contact **Low Income Home Energy Assistance Program** (LIHEAP) for help.
- Drink more water than usual and don’t wait until you’re thirsty to drink.
- Check on a friend or neighbor, and have someone do the same for you.
- Seek medical care immediately if you have, or someone you know has, symptoms of heat-related illness.
Outdoor workers are more likely to become dehydrated and suffer from heat-related illness.

- Prevent heat illness with acclimatization by gradually increasing the time spent working in hot environments.
- Drink from two to four cups of water every hour while working. Don’t wait until you are thirsty to drink.
- Avoid alcohol or liquids containing large amounts of sugar.
- Wear and reapply sunscreen as indicated on the package.
- Ask if tasks can be scheduled for earlier or later in the day to avoid midday heat.
- Wear a brimmed hat and loose, lightweight, light-colored clothing.
- Spend time in air-conditioned buildings during breaks and after work.
- Encourage co-workers to take breaks to cool off and drink water.
- Seek medical care immediately if you or a co-worker has symptoms of heat-related illness.

Athletes are more likely to become dehydrated and suffer from heat-related illness.

- Limit outdoor activity, especially midday when the sun is hottest.
- Wear and reapply sunscreen as indicated on the package.
- Schedule workouts and practices earlier or later in the day when the temperature is cooler.
- Pace activity. Start activities slowly and pick up the pace gradually.
- Drink more water than usual and don’t wait until you’re thirsty to drink more. Muscle cramping may be an early sign of heat-related illness.
- Monitor a teammate’s condition, and have someone do the same for you.
- Wear loose, lightweight, light-colored clothing.
- Seek medical care immediately if you or a teammate has symptoms of heat-related illness.

Pets can suffer heat-related illness too!

- Never leave pets in a parked car.
- Provide plenty of fresh, clean water.
- Have a shady place for them to get out of the sun.
- Do not over-exercise them.
- Keep them indoors when it is extremely hot.

Online Training: Recognizing, Preventing and Treating Heat-Related Illness

Department of Health and Human Services Centers for Disease Control and Prevention
Sample Social Media Posts:

<table>
<thead>
<tr>
<th>Goal: Increase understanding of the connection between extreme heat and public health.</th>
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<tbody>
<tr>
<td><strong>Facebook</strong></td>
<td><strong>Twitter</strong></td>
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<tr>
<td>Summer’s here! Learn tips to help people stay healthy during extreme heat. [Link to local information]</td>
<td>Summer’s here! Learn tips to stay healthy during extreme heat. [Link to local information]</td>
</tr>
<tr>
<td>Know anyone pregnant, elderly, ill or with young children? Check in on them during extreme heat – they’d appreciate it. [Link to local information]</td>
<td>Know anyone pregnant, elderly, ill or with young children? Check in on them during extreme heat – they’d appreciate it. [Link to local information]</td>
</tr>
<tr>
<td>It’s hot outside. Stay Cool, Stay Hydrated and Stay Informed during extreme heat events. [Link to local information]</td>
<td>It’s hot outside. Stay Cool, Stay Hydrated and Stay Informed. [Link to local information]</td>
</tr>
<tr>
<td>Extreme heat events are the most common cause of weather-related deaths in the United States. Protect those most at-risk. [Link to local information]</td>
<td>#ExtremeHeat is the main cause of weather-related deaths in US. Protect those at risk. [Link to local information]</td>
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</table>

Sample PSA script:

**Keeping Cool in a Heat Wave :30**

This is an important message from [insert PHR]. In a heat wave, keeping your cool will keep you healthy. People and animals should stay indoors. If you don’t have air conditioning, go to a mall or the library or a community relief shelter. Remember to drink more fluids, but avoid alcohol and high sugar drinks. When going out, wear light clothing and never leave any persons, especially infants or young children, or animals in a parked vehicle. To learn more, call [insert phone number].

**Power Failures in Hot Weather :30**

This is an important message from [insert PHR]. In hot weather, power failures can be deadly. When the “heat is on,” but the power is out, check on neighbors, relatives and others at risk, including the elderly and young children. To keep yourself and loved ones cool, drink plenty of non-alcoholic fluids, reduce activities, take cool showers or baths, wear light colored clothing, and know where to go for emergency relief. To learn more, call [insert phone number].
DHHS Excessive Heat Fact Sheet:

Fact Sheet

Excessive Heat

Is very hot weather dangerous for people?
People suffer heat-related illness when their bodies are unable to compensate for the heat and cool themselves. The body normally cools itself by sweating. But under some conditions sweating just isn’t enough. In such cases a person’s body temperature rises quickly. Very high body temperature may damage the brain or other organs.

What factors cause the body to be unable to cool itself?
Several factors can affect someone’s inability to feel cooler during extremely hot weather. When the humidity (the amount of moisture in the air) is high, sweat will not evaporate as quickly, preventing the body from releasing heat quickly. Other conditions related to risk include age, obesity, fever, dehydration, heart disease, poor circulation, sunburn, and the use of alcohol and certain prescription drugs.

What types of problems can excessive heat cause?
Heat rash: Heat rash is a skin irritation caused by excessive sweating during hot, humid weather. It may occur at any age but is most common in young children. Heat rash is not usually dangerous.
Heat cramps: Heat cramps are muscular pains and spasms due to exertion. Although heat cramps are the least severe of heat-related illnesses, they are an early signal that the body is having trouble coping with the heat.
Heat exhaustion: Heat exhaustion typically occurs when people exercise heavily or work in a hot, humid place where body fluids are lost through heavy sweating. Blood flow to the skin increases, causing blood flow to decrease to the vital organs. This results in a form of mild shock. If not treated, the patient may suffer heat stroke.
Heat stroke: Heat stroke is life threatening. The patient’s temperature control system, which produces sweating to cool the body, stops working. The body temperature can rise so high that brain damage and death may result if the body is not cooled quickly.
Sunstroke: Another name for heat stroke.

What are the warning signs to look for?
Heat rash: Heat rash may look like a red cluster of pimples, a red area of skin, or small blisters. It is more likely to occur on the neck and upper chest, in the groin, under arms, and in elbow creases.
Heat exhaustion: Cool, moist, pale, or flushed skin; heavy sweating; headache; nausea or vomiting; dizziness; and/or fatigue. Body temperature will be near normal.
Heat stroke: Hot, red skin; changes in consciousness; rapid, strong pulse; and rapid, shallow breathing. Body temperature can be very high, as high as 105°F. If the patient was sweating from heavy work or exercise, skin may be wet, otherwise it will feel dry.

What should someone do if they develop any of these illnesses?
Heat rash: The best treatment for heat rash is to provide a cooler, less humid environment. Keep the affected area dry and body powder may be used to increase comfort.
Heat cramps: If you have heart problems or are on a low-sodium diet, get medical attention. If medical attention is not necessary, stop all activity and sit in a cool place, drink water, clear juice or a sports drink, and seek medical attention if heat cramps do not subside in an hour.

Heat exhaustion: Cooling measures that may be effective for a victim of heat exhaustion include sips of cool water, rest, cool shower or bath, air conditioning, and lightweight clothing. Seek medical help if the person vomits, has a change in mental status, chest pain, or difficulty breathing.

Heat stroke: Heat stroke may be a life-threatening emergency. Get the victim to a shady area. Call for emergency medical help. Cool the victim rapidly using whatever methods you can, such as cool water, a cool shower, spray from a hose, or if the humidity is low, wrap the victim in a cool, wet sheet and fan them vigorously. Do not give the victim fluids to drink. Get medical care as soon as possible.

Who is most at risk for heat-related illness?
Although anyone at any time can suffer from heat-related illness, some people are at greater risk than others.

- Infants and children up to four years of age are sensitive to the effects of high temperatures and rely on others to regulate their environments and provide adequate liquids.
- The elderly may not compensate for heat stress efficiently and are less likely to sense and respond to change in temperature.
- People who are overweight may be prone to heat sickness because of their tendency to retain more body heat.
- People who overexert themselves during work or exercise may become dehydrated and susceptible to heat sickness.

- People who are physically ill, especially with heart disease or high blood pressure, or who take certain medications, such as for depression, insomnia, or poor circulation, may be affected by extreme heat.

What can people do to prevent heat-related illness?

Air conditioning: Air conditioning is the number one protective factor against heat-related illness and death. If a home is not air-conditioned, people can reduce their risk for heat-related illness by spending time in public facilities that are air-conditioned.

Fluids: During hot weather it is important to increase the amount of liquids you drink. If your doctor generally limits the amount you drink though or if you are on water pills, ask how much you should drink while the weather is hot. Avoid caffeine, alcohol, and large amounts of sugar because they can actually cause the body to lose more fluid. You should also avoid very cold drinks because they may cause stomach cramps.

Wear appropriate clothing: Wear less clothing, choosing lightweight, light-colored, and loose-fitting clothes.

Limit outdoor activity: If you must be outdoors, try to limit your activity to morning and evening hours. Try to rest often in shady areas so that your body’s thermostat will have a chance to recover.

Watch what you eat: Eat small meals and eat more often. Avoid foods high in protein.

For specific concerns about heat-related illnesses contact your health care provider or call the NH Department of Health and Human Services Division of Public Health Services at 603-271-4496 or 603-852-5345 x4496 or refer to the Centers for Disease Control and Prevention website at www.cdc.gov.
Sample senior center newsletter message:

Longer version:

Stay cool and healthy when it’s hot outside!

Seniors can get sick on hot days because as you get older, your body may have a harder time sensing heat and keeping itself cool.

- Check local news for the weather report. If highs are in the 80s or 90s, make a plan for how you’re going to stay cool using the tips listed here.
- Stay in an air conditioned place and limit activity on very hot days. Call 211 or ask your senior center staff to find out about air conditioned places or cooling centers in your community.
- Drink plenty of water. Don’t wait until you feel thirsty to drink.
- Wear loose, lightweight clothing and wipe your skin with a damp towel to keep your body cool.
- Check in with a friend or relative twice a day to let them know if you’re staying cool, hydrated, and healthy or to ask for help.
- Talk to your doctor about how hot weather will affect you and follow their recommendations. Some health conditions and medications make it harder for your body to handle hot weather.
- Watch out for signs of heat illness, such as fatigue, skin rash, heavy sweating, muscle cramps, weakness, dizziness, nausea, and headache. If you feel any of these signs or symptoms, plan to cool off as soon as possible, or seek medical attention if symptoms worsen or last longer than 1 hour.

(Name) Senior Center has air conditioning and water. Stop by when the center is open to visit and cool off.

Shorter version:

Stay cool and healthy when it’s hot outside!

- Check the weather and watch for highs in the 80s and 90s.
- Stay in an air conditioned place and limit exercise on hot days.
- Drink more water than usual. Don’t wait until you feel thirsty to drink.
- Wear loose, lightweight clothing.
- Cool your skin with a damp towel or ice pack, or take a cool bath or shower.
- Check in with a friend or relative twice a day to let them know you’re safe.
- Talk to your doctor about how heat will affect you. Some health conditions and medications make it harder for you to stay cool.
- Watch out for signs of heat illness, and seek medical attention if you need help.

(Name) Senior Center has air conditioning and water. Stop by when the center is open to visit and cool off.
Sample senior heat flyer:

IT’S HOT OUTSIDE! STAY COOL. STAY HYDRATED. STAY INFORMED.

Hot weather can be a serious health risk for seniors! When the temperature rises above 80 degrees, take action to stay cool, hydrated, informed, and healthy.

Stay cool

- **Spend time in an air conditioned place** on hot days when the temperature rises above 80 degrees.
- **Make a plan to spend time somewhere air conditioned** in your community if your home is too hot, like your senior center or library.

*If you cannot get to air conditioning:*

- **Use a fan**, but fans may not help you cool off if temperatures rise above 90 degrees (A/C is best on very hot days).
- **Take a cool bath or shower, or cool your skin with a damp washcloth or ice pack.**

Stay hydrated

- **Drink more water than usual** during hot weather. Don't wait until you're thirsty to drink.

Stay informed

- **Keep track of your local weather report.** Watch for when the temperature rises above 80 degrees, and keep an eye out for information about heat safety.
- **Check in with a friend or relative twice a day** to let them know that you're staying cool, hydrated and healthy.
Seniors can get sick on hot days because your body has a harder time sensing heat and staying cool as you get older. Heat-related illness can happen when the temperature rises above 80 degrees, so stay cool, hydrated, and informed all summer long.

Some health conditions and medications make it harder for your body to handle hotter temperatures. **Talk to your doctor** about how hot weather might affect you and follow their recommendations.

Common heat-related health problems include heat exhaustion, heat stroke, heart trouble and respiratory disease. **Seek medical care immediately if you or someone you know has symptoms of heat illness like muscle cramps, headaches, nausea, or vomiting.**

If you need help staying cool, call ServiceLink, 211, or your senior center. Ask about cooling centers in your community, senior ride programs that can help you get somewhere cool, or volunteer programs that can help you install an air conditioner or sign up for a daily phone call if you don’t have anyone to check in with on hot days.

100°F – It’s seriously hot! Move to A/C as soon as you can.
95°F – Hot enough for a heat advisory: hydrate and stay cool.
90°F – Don’t depend on a fan: get to A/C soon to cool off.
85°F – It’s heating up! Fans are ok, although A/C is best.
75°F – Perfect summer weather. Drink plenty of water!
Resources for Responding to Excessive Heat
This is a partial listing and local Public Health Regions are encouraged to include local resources.

- NH Department of Health and Human Services’ Excessive Heat Fact Sheet
- NH Department of Environmental Services’ air quality data and forecasts
  http://www2.des.state.nh.us/airdata/air_quality_forecast.asp
- CDC Heat Toolkit
  https://www.cdc.gov/extremeheat/materials.html
- US EPA Heat Events Guidebook for Communities
  http://www.epa.gov/heatisland/about/heatguidebook.html
- US CDC Extreme Heat Prevention Guide
  http://emergency.cdc.gov/disasters/extremeheat/heat_guide.asp
- US CDC/NIOSH Protecting Workers in Heat Events
  http://www.cdc.gov/niosh/topics/heatstress/
- OSHA Protecting Workers in Heat Stress
- National Weather Service Heat Wave Guide
  http://www.nws.noaa.gov/om/brochures/heat_wave.shtml
- National Weather Service Heat Index Chart
  http://www.weather.gov/om/heat/index.shtml
- National Weather Service Weather Fatalities
  http://www.nws.noaa.gov/om/hazstats.shtml
- Federal Emergency Management Agency
- AAP Policy Statement
  http://pediatrics.aappublications.org/content/106/1/158.full
- NATA (National Athletic Trainers Association) Position Statement: Exertional Heat Illnesses
- Mayo Clinic
  http://www.mayo clinic.com/health/dehydration/SM00037
- Humane Society of the United States, advice for pet owners during heat wave
  http://www.humanesociety.org/animals/resources/tips/pets_safe_heat_wave.html
- FEMA-Extreme Heat Factsheet
- American Red Cross - Heat
  http://www.redcross.org/prepare/disaster/heat-wave
- Department of GeoSciences: Safety Recommendations Fact Sheet: Never Leave Your Child Alone in the Car!
- National Weather Service Heat Index