

### What is Extreme Heat?

Seasonal temperatures, particularly during summer months, have shown a consistent upward trend over time. Current heat levels are approaching thresholds considered hazardous to human health. Extreme heat events are characterized by significantly elevated temperatures (greater than 90 degrees) and humidity levels that exceed seasonal norms for prolonged periods (several days).

Extreme heat poses a substantial public health risk in the United States, contributing to increased rates of heat-related illnesses and fatalities. Elevated humidity exacerbates the risk by impairing the body's natural cooling mechanisms to regulate temperature through perspiration. Vulnerable populations, like the elderly and young children, are especially susceptible to the dangers of extreme heat. Factors like age, health conditions, acclimatization and activity level can influence how susceptible a person is to heat-related illness.

Extreme heat events are not geographically confined and may occur in any region due to the ongoing rise in global temperatures. The frequency and intensity of such events have increased across the United States, with recordbreaking temperatures becoming more prevalent.

Urban areas are particularly susceptible to heat waves, which are becoming more frequent and severe. This trend is driven by the increased concentration of heat-trapping greenhouse gases in the atmosphere. Even marginal increases in the frequency or intensity of heat waves are projected to result in a measurable rise in heat-related health impacts.



### **Impacts of Extreme Heat**

## 1 Reliance on air conditioning and heat mitigation strategies continues to grow.

- Many schools, especially older schools across the United States, lack adequate air conditioning, making it difficult for students to focus and learn
- At home, the demand for cooling increases as temperatures rise, driving up electricity use and costs
- This burden falls heaviest on families living in non-energy-efficient homes, where the growing expense of energy becomes unaffordable



# 2 Extreme temperatures can damage energy and transport systems, leading to safety hazards.

- Power lines expand and sag, reducing transmission efficiency and potentially leading to outages when air conditioning is crucial
- · Increased demand puts more stress on the energy grid
- High temperatures can negatively impact vehicle performance and longevity, including engine overheating, tire blowouts, reduced battery life and interior damage
- · Roadways and airport runways can expand or buckle



# 3 Elevated temperatures reduce food supply, impacting livestock and water supplies.

- Timing of plant growth changes leading to a decrease in crop yields
- Temperatures increase leading to pests that impact growth of crops and livestock
- Cows are sensitive to heat leading to inadequate quality of milk production



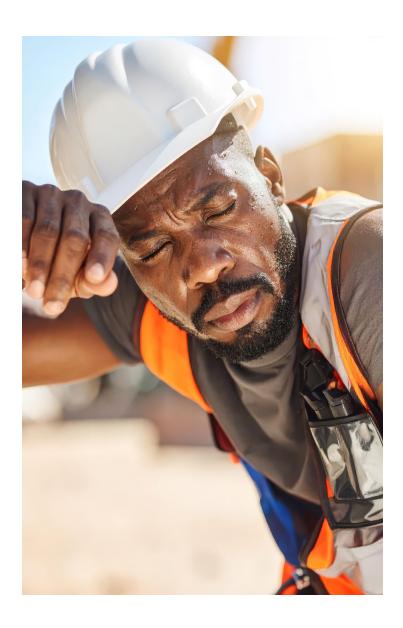


#### **Employee Health Impacts**

Rising temperatures are directly correlated to increased emergency room visits and hospitalizations. Heat can also worsen pre-existing medical conditions and pose risks during pregnancy. In some cases, people may experience cramps due to the loss of salt and water. Extreme heat can lead to heat exhaustion or heat stroke, sometimes resulting in hospitalization or even death.

Heat stroke is the most serious heat-related health problem. Heat stroke occurs when the body's temperature regulating system fails and body temperature rises to critical levels. This is a medical emergency that may result in death. The signs and symptoms of heat exhaustion are headache, nausea, dizziness, weakness, irritability, confusion, thirst, heavy sweating and a body temperature greater than 100.4°F. Heat exhaustion is a serious illness that may require emergency medical treatment, especially after exposure to high temperatures and dehydration.

Two other heat-related injuries that may result are **heat cramps**, where painful muscle spasms are caused by the loss of body salts and fluids during sweating and **heat rash**, which is most common. Beyond physical effects, extreme heat has the potential to negatively affect mental health, with a correlation between high temperatures and increased rates of suicide and interpersonal violence.





OSHA is currently in the process of establishing the first federal heat standard to protect workers. The proposed standard would apply to all employees conducting outdoor and indoor work in all general industry, construction, maritime and agriculture sectors under OSHA's jurisdiction. The standard would require employers to implement heat injury and illness prevention plans, including identifying and controlling heat hazards, providing water, rest areas and training workers on heat safety. The goal is to prevent and reduce the number of occupational injuries, illnesses and fatalities caused by exposure to hazardous heat. Some states, such as California, have already passed laws requiring employers to take steps to protect workers from heat illness in both indoor and outdoor workplaces, such as the California Code of Regulations, Title 8 (T8CCR), sections 3395 and 3396.





# Coverage Considerations & Insurance Impacts

As extreme heat becomes more prevalent, understanding its potential impact on homeowner and business insurance becomes increasingly important.

#### **Coverage for Direct Heat Damage**

- Standard policies typically cover sudden, accidental damage like fires sparked by extreme heat
- Damage from gradual heat exposure, like warping or fading, is generally not covered

#### **Indirect Damages and Covered Perils**

 Extreme heat can indirectly lead to covered perils like electrical system strain and potential fires, which your policy may cover

#### Wildfire Risk and Coverage

- Extreme heat and drought significantly increase the risk of wildfires
- Ensure your policy includes adequate wildfire coverage

#### **Maintenance and Prevention**

- Proactive maintenance can reduce heat damage and potential insurance claims
- Regularly inspect your roof and maintain your HVAC system
- · Address foundation concerns related to soil drying out

#### **Impact on Premiums**

- Increased claims due to extreme weather events can lead to rising insurance premiums for everyone
- Insurers may adjust rates based on frequency of claims in specific areas and the overall risks associated with climate change



### **Proactive Safety Checklist for Businesses and Homeowners**

#### **Businesses** Homeowners **Pre-Season Preparation Home Preparation** Inspect HVAC systems; clean filters and ensure adequate Inspect and service air conditioning units before cooling capacity heat season Install or test backup power generators for cooling Consider installing or backup power generators for cooling equipment and home appliances equipment Review employee safety protocols for heat-related illness Install weatherstripping and window coverings to Schedule maintenance for refrigeration and temperaturekeep heat out sensitive storage areas Consider reflective roof coatings or light-colored Ensure adequate ventilation in warehouses and workshops roofing materials Check attic insulation and ventilation **Workplace Safety** Keep emergency fans available in case of AC failure Designate a Person to oversee a program to address Extreme Heat and Heat Illness Prevention **Personal Safety** Implement a process to identify and recognize heat Stay hydrated; avoid sugary drinks, alcohol and hazards and the risk of heat illness Allow workers to build tolerance to working in the heat excess caffeine through acclimatization Limit strenuous activities during peak heat hours Provide shaded rest areas for outdoor workers (10 AM - 6 PM) Provide AC, increased ventilation, fans and portable Wear lightweight, loose-fitting, light-colored coolers where permanent systems are insufficient clothing to allow your body to cool more Altering work schedules to help reduce workers' exposure efficiently ☐ Use sunscreen with SPF 30 or higher Provide adequate quantities of cool drinking water in easily Monitor vulnerable family members, especially accessible locations elderly and young children Train employees to recognize on health effects of heat, Spend time in an air-conditioned places (i.e., the symptoms of heat illness, how and when to respond to cooling centers, malls or libraries) symptoms, and how to prevent heat illness Use electric fans Establish a system to monitor and report the signs and Minimize time in the sun Take frequent breaks in air-conditioned or cool, symptoms Have an emergency plan in place and communicate it to shaded areas to allow your body to recover supervisors and workers Eat light foods Check the local news and weather for updates **Business Continuity Pets and Animals** Update emergency contact lists and communication plans Review insurance policies for heat-related coverage Always provide fresh water Plan for product protection (perishable goods, electronics, Ensure shaded outdoor areas or bring pets chemicals) indoors Monitor local heat advisories and weather alerts Avoid walking pets on hot pavement



systems fail

Establish work-from-home or remote operations if cooling



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