Heat, the workplace and your health

About this document

This document provides information on:

- Heat
- Heat stress
- People at risk
- The steps BC Public Service employees can take to ensure a heat-safe workplace

References and additional information are linked in the closing section.

This information is primarily for people working in an office environment. Some of the information also applies to employees who work from home. Workplaces with employees regularly working outdoors should already have heat stress programs (PDF, 93.8KB).

If you have questions or need assistance with indoor or outdoor heat stress programs, contact an occupational safety specialist by submitting a service request via AskMyHR. Choose service category Workplace Safety and sub-category Other Issues and Inquiries.

Heat events

Heat events, or heatwaves, involve high temperatures and sometimes high humidity. These events are usually hotter than the seasonally normal temperatures for your region.

B.C. is experiencing an increase in average summer temperatures and extremely hot days. As the climate changes, we can expect heat events to be hotter, more frequent and longer lasting.

Heat events can affect anyone's health. Unusually high heat can have serious and negative impacts on your health and some people are at greater risk.

What is heat stress?

Heat stress occurs when a person is exposed to conditions that result in a core body temperature exceeding 38°C or 100°F (normal is 37°C or 98.6°F). Depending on the work environment, the body adapts and maintains its normal temperature by sweating and increasing skin blood flow to prevent the body temperature from rising.

Several components are assessed when determining heat safety for workers:

- Temperature
- Humidity
- Level of physical exertion
- Duration of effort
- Adaptation in a hot environment

Heat stress and heat-related illnesses occur when the body overheats from prolonged exposure to high temperatures.

Who is at higher risk of heat stress?

Older people, pregnant people and people with chronic health conditions are at greatest risk of heat stress and may not realize when their core body temperature is rising. People with mobility difficulties may need extra help in taking steps to keep cool.

Learn how to recognize heat stress and heat-related illnesses and what to do: Health checks during extreme heat events. Take immediate action to cool down if you or people you care for are showing signs of heat stress.

Steps to take to ensure a heat-safe workplace

1. Ensure HVAC is on and functioning appropriately
    - Work with your facilities management team and CBRE if you have any concerns
    - In prolonged or extreme heat events, air conditioning settings and hours of operation may need to be modified. Work with your facilities management team and CBRE if your building is not cooling to its normal temperature
2. Minimize loss of cooling and heat gain into the building:
    - Do not prop open external doors that allow hot air to enter and cool air to escape
    - Turn off and do not use any unnecessary or heat-generating

equipment
    - Leave internal office doors open, when possible, to allow for better air distribution, including overnight
    - Block sunlight by closing blinds and window coverings
    - If security programs allow it, close blinds nightly before going home or, in the morning when first arriving at the workplace, cover east and south facing windows
3. Small individual fans may be used to increase personal comfort in smaller office and meeting spaces. Be aware of your workplace Communicable Disease Prevention Plan. Best practice is to consider fan placement to prevent spread of peoples' respiratory droplets and aerosols. For example, don't place fans where they'll direct droplets and aerosols downwind to others. It is best to set up devices so air flow moves downward from the ceiling
4. Portable air conditioners may be necessary in buildings with inadequate cooling systems. They may also be used in buildings with otherwise adequate mechanical ventilation systems
    - Direct the airflow away from people
    - Don't arrange seating directly in front of air conditioning units
5. If your space does not have mechanical ventilation or air conditioning, it may be effectively cooled with natural ventilation and fans (see note above about fan use)
6. Drink a lot of water (without added salt) throughout the day when in a hot environment. This means before, during and after your workday

7. Loose and lightweight clothing may help to keep you more comfortable

When your workplace temperature exceeds the acceptable indoor temperature range

In work environments without functioning mechanical air conditioning or other effective cooling methods, heat events can lead to the risk of heat stress for staff.

Most staff working in an office environment will be in public service buildings with mechanical ventilation and air conditioning. Based on WorkSafeBC regulations, buildings with mechanical ventilation should have a temperature range of 23 to 27 degrees Celsius during the summer depending on the humidity level.

For office type work that requires light or sedentary duties once the temperature exceeds 27 degrees Celsius, work can continue but mitigation strategies need to be put in place.

Workplaces that require moderate or heavy physically demanding work or have heat generating work processes (for example: laboratories or workshops), may require mitigation strategies at a lower temperature.

If your workplace exceeds the acceptable temperature range after all the preventive actions are taken, other options may exist, including working from another office or working from home (if sufficiently cool).

If you are working remotely and experiencing high and unsafe temperatures in your home, you should work from your assigned work location or office to take advantage of air conditioning.

Supervisors and managers who believe their workplace may need to enact heat mitigation strategies and need an assessment of the workplace environment and tasks undertaken should contact an occupational safety specialist by submitting a service request via AskMyHR. Choose service category Workplace Safety and sub-category Other Issues and Inquiries.

References and resources

- Wildfire smoke, air quality and your health (PDF, 93.8KB) (BC Public Service)
- Working outside during heat events (PDF, 247.1KB) (BC Public Service)
- Heat stress (WorkSafeBC)
- Beat the heat (HealthLinkBC)
- Hot environments (Canadian Centre for Occupational Health and Safety)
- Overview of heat events (Health Canada)
- Preparing for heat events (BC Centre for Disease Control)
- Extreme heat (National Collaborating Centre for Environmental Health)