

## **SUGGESTED MEASURES TO PREVENT HEAT STRESS**

These measures are designed to help to minimize the negative effects of excessive heat on employees who are working in indoor environments with higher-than-normal temperatures. There are a variety of measures that can be taken to minimize or prevent heat stress. Some of these steps can be taken by the employee, while other preventive measures can be implemented by supervisors and departments. Work environments can be changed to reduce the risk of heat stress. Every situation is different. The best combination of ways to prevent heat stress depends on the particular work being done, the environment in which it must be done, and the employees doing the work. Consider the following recommendations to find the best combination of ways to prevent heat stress for your individual situation.

### **PREVENTIVE MEASURES EMPLOYEES CAN TAKE**

Employees should consider taking precautions to avoid heat-related illness in unusually hot weather when working in unconditioned indoor environments. This may include:

- Bring a water bottle and make sure to drink small amounts of cool water frequently to prevent dehydration. A water kiosk is located on the first floor of the Science Building near the atrium.
- Plain water is usually adequate without need to take additional salt or minerals (beyond those in your diet) however, a sports beverage can also help replace the salt and minerals you lose in sweat.
- Wear appropriate clothing. During periods of elevated temperature, employees should wear lightweight, loose-fitting natural fiber clothing (ex: cotton, linen) that allows ventilation of air to the body.
- Take breaks in cool areas. A few hours in air conditioning can help you stay cooler later in the hot areas.
- Take time to acclimate to heat and humidity. A heat wave is stressful to your body. You will have a greater tolerance for heat if you limit physical activity until you become accustomed to it. Acclimation to a stressful environment may take days or weeks. Gradual adaptation improves the employees' ability to tolerate heat by sweating more efficiently, thus cooling the body and making it easier to maintain a normal temperature.
- Report signs and symptoms of illness to a First Aid Attendant. This can be done by calling Campus Security at 78111. Signs and symptoms of heat-related illness include headache, dizziness, lightheadedness, fainting, weakness, malaise, mood change, mental confusion or irritability, nausea or vomiting, rapid pulse and excessive sweating or lack of sweating with hot dry skin.

Also, look for potentially modifiable heat sources in your working area. For example, if you have a printer, mini-fridge or even laptop docking/charging station, consider leaving these heat sources powered down if possible and using alternate options during periods of higher indoor temperatures.

## **PREVENTIVE MEASURES SUPERVISORS CAN TAKE**

Preventive measures that can be implemented by a supervisor are called administrative or work strategy controls. These are strategies that use managerial involvement to limit exposure to potential heat stress. In the case of heat stress, administrative controls limit the amount of time an employee is actually exposed to elevated temperatures. Administrative controls can be changes to how the job is performed, or work schedule changes to when the job is performed.

Some suggestions include:

- Encouraging employees to take breaks and hydrate any time they feel necessary.
- Pacing the job to allow more frequent breaks for fluid intake and sufficient recovery time.
- Taking a break in a cool area or an air conditioned building.
- Opening windows (during period of cooler outdoor temperatures) and adding fans to increase air movement in order to provide air cooling and ventilation of heat.
- Closing blinds to reduce direct sun exposure.

As per WorkSafeBC regulations, if room temperatures continually exceed acceptable thermal comfort parameters, working alternatives should be sought which may include finding another workspace in a cooler area on campus. If this is not possible, supervisors may authorize a change in work hours or work-from-home arrangements. If neither of these alternatives are feasible, the supervisor should send the employee home without a loss in pay. It is important that staff check in with their supervisor before making any changes to their work schedule or location. For more information on acceptable indoor temperatures visit: <http://www.ubc.ca/okanagan/hse/health/indoorenvqual.html>

References:

1. Health Canada (1995), Indoor Air Quality in Office Buildings: A Technical Guide.
2. American Society of Heating, Refrigerating and Air-Conditioning Engineers Standard 55-1992.
3. Workers' Compensation Board of B.C., 2005, Indoor Air Quality: A Guide for Building Owners, Managers, and Occupants
4. University of North Carolina at Chapel Hill, 2005, Suggested Measures To Prevent Heat Stress, [http://ehs.unc.edu/ih/docs/heat\\_stress\\_sugg.pdf](http://ehs.unc.edu/ih/docs/heat_stress_sugg.pdf)