



SCHOOL DISTRICT NO. 22 (VERNON)

HEALTH AND SAFETY

Working in Hot Temperatures SWP 010

A. Purpose

The purpose of this safe work practice is to provide proper information and practices to mitigate the risk of exposure to high temperatures during work activities. Workers exposed to high temperature may have their health, safety, and productivity affected.

B. Application

The conditions of this practice shall be considered whenever work is to be conducted where District workers will be exposed to high temperatures for extended period of time.

C. Guidelines

The core temperature of the human body, brain, heart, and other vital organs is 37°C. This is the optimum temperature at which the body works. If the body temperature raises 2°C, increased stress can be put on the body causing it to sweat. The sweat evaporates and cools the body. If the person becomes dehydrated by not replacing any fluid lost as sweat, they become dehydrated and unable to sweat. If the body loses its ability to control its core temperature, serious health problems can result.

The best treatment for heat stress is prevention. In most situations, a combination of several preventative measures can provide an effective program for averting heat-related illness. Some possible measures are:

- Adjusting work schedules,
- Alternating work with breaks, and
- Monitoring workers for heat stress symptoms. Maintaining flexible and adequate work/rest schedules is relatively easy and an effective method of reducing heat stress. Workers should be able to take breaks to cool down and should be encouraged to drink water frequently. Coffee or caffeine-containing soft drinks are not advisable since their diuretic effects contributes to dehydration. Break and lunch areas should be cooler than the work area; they should also be



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monitoring themselves and each other for signs or symptoms of heat-related illness and should understand what to do if they detect them.

D. Heat Related Illnesses

Table 1 are descriptions of the forms of heat-related illness that can occur during work in hot weather:

Table 1 - Health Problems Resulting from Heat Exposure

Problem and Symptoms	Treatment	Prevention
<p>Heat rash (prickly heat)</p> <p>Tingling and burning of the skin, red itchy rash. Sweat glands plugged due to prolonged exposure of skin to heat, humidity, and sweat.</p>	<ul style="list-style-type: none"> ● Thorough drying; ● Cool showers; ● Calamine lotion; and/or ● Aloe Vera. 	<ul style="list-style-type: none"> ● Keep the skin as dry as possible; ● Rest in a cool place; ● Shower often; ● Change clothes frequently; and ● Keep skin clean.
<p>Heat cramps</p> <p>Painful spasms of muscles that do the hardest work (e.g., in the arms, legs, and abdomen).</p>	<ul style="list-style-type: none"> ● Massage the muscle(s), and ● Eat salt-containing foods (unless to be avoided for medical reasons). 	<ul style="list-style-type: none"> ● Warm up muscles before heavy work; ● Take rest breaks; and ● Eat a normal, healthy diet.
<p>Fainting</p> <p>Increased flow of blood to the skin to get rid of heat means less blood to the brain.</p>	<ul style="list-style-type: none"> ● Lie down in a cool place; ● Drink cool fluids to lower body temperature; and ● See a doctor if fainting recurs. 	<ul style="list-style-type: none"> ● Drink plenty of fluids at regular intervals, and ● Avoid standing still in one position – move around.
<p>Heat Exhaustion</p> <p>Tired, weak, dizzy, clammy skin, slow weak pulse. Pale or flushed skin colour. Higher than normal heart rate (160 to 180 beats/min).</p>	<ul style="list-style-type: none"> ● Lie down with knees raised; ● Drink cool, not cold fluids; and ● Contact a doctor if conditions do not improve quickly. 	<ul style="list-style-type: none"> ● Take four to seven days to adjust (acclimatize) to the heat; ● Drink plenty of fluids at regular intervals; and ● Take rest breaks in a cool place.



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<p>Heat Stroke</p> <p>Person usually stops sweating, body core temperature is high (40-43°C), skin is hot and dry. Person experiences headache, dizziness, confusion, may lose consciousness, or have fits. Fatal if treatment is delayed.</p>	<ul style="list-style-type: none">• This is a medical emergency. Person must be taken to hospital as quickly as possible, and• Move worker to a cool or shaded area, remove clothing, wrap in wet sheet, pour on chilled water, and fan vigorously. Avoid overcooling. Treat for shock once temperature is lowered.	<ul style="list-style-type: none">• Take four to seven days to adjust (acclimatize) to the heat;• Drink plenty of fluids at regular intervals;• Take rest breaks in a cool place;• Wear clothing appropriate for the conditions; and• Follow a work/rest schedule.
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E. Related References

- British Columbia Occupational Health and Safety Regulation, Part 7: Noise, Vibration, Radiation, and Temperature, Section 7.50 – 7.62.
<http://www2.worksafebc.com/Publications/OHSRegulation/Home.asp>.