



# Tool Box Safety Talk No. 5

September 2002

## Heat & Sun Related Illness

On hot summer days roofers are exposed to health risks from the harmful affects of both the sun and the high temperatures experienced at roof level. Roofers must protect themselves from the harmful effects of the sun's ultraviolet (UV) and infrared radiation. When the body overheats while doing hard physical work in temperatures exceeding 21 C, heat stroke, heat cramps, heat rash and heat exhaustion can occur. Wearing light coloured clothing and a hat, as well as drinking plenty of fluids such as water and juice will reduce the risk of suffering from these health issues. Take frequent breaks in the shade on hot summer days.

### Heat Exhaustion

Heat exhaustion is the most common type of heat related illness. Symptoms may include fatigue, nausea, giddiness or headache. Cool clammy skin, extreme thirst or fainting may be the first signs of heat exhaustion. Prevention requires that workers drink plenty of fluids, avoid overexertion and monitor their body temperature. Treatment should include moving the affected worker to a cooler place (air-conditioned) and have them drink fluids. Avoid administering caffeinated drinks, such as cola or coffee, as they dehydrate the body. Symptoms should lessen after approximately thirty (30) minutes of treatment and the victim should feel better. Seek medical assistance if symptoms are severe as heat exhaustion can develop into heat stroke.

### Heat Cramps

Symptoms for heat cramps are painful muscle spasms that occur during or after strenuous activities and maybe experienced as an acute abdominal problem. Prevention requires the consumption of plenty of fluids such as water or juice at regular intervals, as well as acclimatizing oneself to the work conditions. Treatment should include laying the victim down away from the heat and loosening their clothing. Recovery should take place in a short period of time. If cramping is severe or long lasting, seek medical assistance.

### Heat Rash or Prickly Heat

Heat rash symptoms may be small raised blisters, reduced sweat production or inflamed sweat glands and itchy or prickly skin. Prevention requires that your clothing and skin remain dry. Moisture wicking clothing is a good choice. Treatment consists of keeping the skin cool and dry, limiting further exposure and by resting in a cool location. The application of a mild drying lotion may reduce irritation. Allow the skin to dry between heat exposures by sleeping in cool (air-conditioned) rooms. If heat rash is severe, seek medical attention.

## **Heat Stroke**

Heat stroke is the least common heat related illness. Heat stroke can result in brain damage or even death if left untreated. Prevention requires the monitoring and maintaining of body temperature at safe levels. Heat stroke has many symptoms that include:

- Core body temperature greater than 40.5 C
- Weakness, drowsiness or loss of consciousness
- Lack of sweating, dry hot skin, may be mottled with a red or blue tinge
- Numbness
- Dilated pupils
- Decreased muscular activity or loss of coordination
- Erratic behavior or mental alertness

Treatment requires that the victim be cooled off immediately. Cooling should include removal of clothing and the wrapping or covering of the victim with wet clean cloths or towels. Heat stroke is a medical emergency and treatment requires hospitalization, call 911 for transportation to the hospital as quickly as possible.

## **Sunburn**

Sunburn is the effect of ultraviolet (UV) radiation on the skin and roofers working out of doors are sunburn candidates. Over exposure to UV radiation can cause skin cancer. To assist in determining the risk of sunburn, weather reports include a UV index. Skin can sunburn in only fifteen minutes when the UV index is higher than seven (7). The highest levels of UV are normally experienced between noon and three (3) PM each day. Sunburn symptoms include skin reddening and in severe case blistering is observed. Typically sweat does not evaporate from sunburned skin. Prevention requires that workers keep their skin covered with cool light coloured clothing and requires frequent application of sunscreen or sun block lotions to protect exposed body parts. Remember for continuous protection during the workday, frequent re-application of sunscreen lotions is required, as they wear off. Sunburn treatment should include covering the damaged skin with a lotion to reduce swelling and inflammation. Do not break blisters that have formed. When sunburn is severe the worker should stay out of the sun, cover the damaged skin area and seek medical attention.

Tinted safety glasses with UV protection will protect the eyes from UV radiation as cataracts and other eye damage can occur. Remember that sunlight exposure does not have to be direct, as light can be reflected off light coloured surfaces associated with roofing membranes.