



WORKING OUTSIDE IN COLD WEATHER

Introduction - Despite all the talk of global warming and what appears to be an unseasonably long warm spell there are still many GMB members who work outside in all weathers and have to deal with wide variations in temperatures. This span covers working in extreme temperatures including in very cold conditions. This bulletin is designed to identify some of the health, safety and welfare issues which can be expected as winter approaches.

Health problems associated with working in cold temperatures - Workers with cardio vascular problems and those with respiratory diseases or on certain medication need to be extra careful when working in very cold temperatures as the conditions can exacerbate any problems. Nose and ears, fingers and toes are the body parts which are most likely to be affected by the cold. The first signs are often manifested as chilblains. Next is frost nip which damages the exterior skin which is recoverable from if dealt with in time?

Much more serious is frost bite, in effect deeper penetration of the cold, which can often have irreversible effects if not dealt with properly and can lead, in extreme cases, to the loss of limbs. Long term exposure without adequate protection can result in hypothermia which can lead to death. Other medical conditions such as cold induced urticaria (itching) or Vibration White Finger can also be brought on by very cold weather.

Medical effects on the body of cold temperatures - The human body has a core temperature of 37° centigrade. Unconsciousness can occur at 31° centigrade and death below 26° centigrade. Early signs are demonstrated by slower reaction times and a lengthening of the time it takes to complete tasks. Manual dexterity decreases and there is often an increase in mistakes and accidents. When exposure is more extreme signs to watch out for include:

- Persistent severe shivering;
- Fatigue, lack of coordination, drowsiness, apathy, hallucinations and resistance to help;
- Skin may turn blue and then later pale and dry;
- As the temperature of the body continues to drop shivering stops and muscles turn rigid;

- Breathing and heart rates slow down; or
- Finally loss of consciousness.

If this occurs medical help should be summoned right away!

Measures to alleviate exposure to cold - As with any problem the most obvious method to deal with it is to eliminate it! This is not always practical when working outside and so measures to reduce exposure need to be considered. There will be a need for proper clothing to be worn. The best advice states that multi layering of clothes is the most adequate as these can be added or removed depending on each individual's metabolism. There should be an inner layer of clothes which are capable of moisture absorption and transportation from the body's surface.

This should be followed by a shirt and/or sweater, again with insulation and moisture transportation properties. Finally an outer layer which should, by being waterproof, windproof and durable, give protection against the elements. Proper insulated headgear should also be provided as up to half the bodies' heat can be lost through the head.

In addition regular breaks in a warm building with access to warm drinks is a means of ensuring better recovery and efficiency. Protective clothing can be bulky and have a hobbling effect which can restrict the movement of the body and allowances in terms of workload should be made when these clothes have to be worn.

Other factors to consider - Exposure to cold temperatures will be made much worse by wind chill. In essence this is where the wind effectively blows away the warm air your body creates around you. When the air temperature is 10°C and the wind speed is 20 mph the effective temperature as far as the body is concerned is 0°C. Therefore workers are exposed to greater danger on a cold windy day than on an equally cold, calm day.

The avoidance of working in water when it's cold should also be considered. As well as making the body colder quicker there is also an increased chance of conditions such as immersion (or trench) foot if water comes into prolonged contact.

Conclusion - Working in cold weather is not an unforeseen situation. With a full and proper risk assessment, where GMB safety reps and the workforce are involved, many of the potential problems can be voided. For further information on this or associated subjects please contact simon.reed@gmb.org.uk