



WE PROVIDE A NUMBER OF DIFFERENT SERVICES TO ASSIST OUR CLIENTS THAT INCLUDE:

- EHS Risk Assessments
- Occupational Hygiene Surveys
- Ergonomics Surveys
- EHS Management
- System development and implementation
- Environmental Monitoring
- Identification of EHS Legal Requirements and Compliance Audits
- Construction EHS Services
- Construction H&S Files
- Internal Auditor Training
- General EHS Training



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Department of Employment
and Labour Approved
Inspection Authority
(OH0049-CI-09)

Newsletter compiled by
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HEAT STRESS ↑↑↑

Our bodies naturally maintain a temperature between 36°C and 38°C. Sweating cools our bodies down, but if the work environment is too hot, this may not be enough. If your body heats up faster than it can cool itself, you experience heat stress. This can lead to heat disorders, which may result in injury.

How Workers are Exposed?

The Environment

- Radiant heat from direct or indirect sunlight.
- Air temperature hotter than skin temperature.
- High humidity (makes it harder for a worker to cool down).

The Work

- The more active you are, the more heat you will produce.

The Worker

- Conditioning (regular work in hot environments makes workers less prone to heat stress).
- Poor health, including obesity, advanced age, and medical conditions (the body responds poorly to overheating).
- Not drinking enough water.
- Excess clothing or inappropriate personal protective equipment (this traps heat and prevents cooling).

The Dangers to Workers

As a worker's body heats up, it loses fluids and salt through sweat. As workers dehydrate they are less able to cool themselves down. Workers in a hot environment should be aware of these warning signs of heat stress:

- !!! Excessive sweating
- !!! Dizziness
- !!! Nausea

Heat Stress can have serious effects on the body, if not treated early:

Heat Cramps (painful muscle cramps)

can lead to heat exhaustion if left untreated

Heat Exhaustion (shallow breathing, increased heart rate, weak, rapid pulse, sweating)

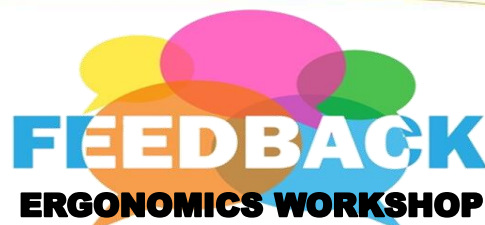
weakness/fatigue/dizziness; headache and nausea; fainting; muscle cramps

Heat Stroke (hot/dry, flushed skin; no longer sweating)

Agitation/confusion; decreased level of consciousness and awareness; headache; nausea and vomiting; seizures; increase in breathing rate; irregular pulse; shock; cardiac arrest

The most effective way to reduce the risk of heat stress is to eliminate the source of exposure. If that's not possible, there are other risk controls to use. When choosing risk controls, start by asking yourself the questions in the following steps, which are listed in order of effectiveness.

- Elimination / Substitution
- Engineering Controls
- Administrative Controls
- Personal Protective Equipment



We had an amazing response to the "New Ergonomics Regulations" Workshop we hosted at St Georges Club in Port Elizabeth on the 18th February 2020.

Don't worry if you couldn't attend the first one... we are planning another one soon!

If you are interested in attending, please contact **Mandy Gardner** by email (mandy.gardner@safetech.co.za).



<https://www.worksafebc.com/en/health-safety/hazards-exposures/heat-stress>

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Hot Facts About Welding and Cutting Safety



A device that produces an intense flame or concentrated electric arc should be considered as inherently dangerous. But welding and cutting equipment has become so familiar on many of today's worksites that it's easy to lose sight of the potential hazards.

Safety professionals know that few things are more dangerous than complacency. When workers stop actively considering workplace safety and safe operations, they are more likely to cut corners and make avoidable errors.

It is therefore important to reinforce the facts and procedures associated with the safe operation of welding equipment, cutting torches and related tools.

Multiple Hazards

Welders and other workers who use torches are exposed to several work-related hazards, particularly injuries caused by flying particles, burns from hot metal and exposure to vapours, fumes, chemicals as well as ultraviolet radiation.

Depending upon the type of welding/cutting and the properties of the materials that are being used (including any finishes or treatments used on those materials), workers may be exposed to a variety of vapours, fumes and chemicals that may range from mildly irritating to life-threatening. They should therefore be made aware of any potential hazards and should refer to Safety Data Sheets (SDS's) for information and guidance.

Ultraviolet radiation can be extremely harmful to the eyes. Only a few seconds of exposure to a very bright light source such as a welder's arc can cause the painful condition known as **photokeratitis** (comparable to sunburn of the cornea and conjunctiva - usually not noticed until several hours after exposure). Symptoms include increased tears and a feeling of pain, likened to having sand in the eyes. Longer-term exposures have been said to cause cataracts.

Personal Protective Equipment

Given the potential for injury and limited opportunities to engineer hazards out of the actual tasks to be performed, it's extremely important that workers become familiar with and use the appropriate personal protective equipment (PPE).

Each item of PPE must be matched to the hazards associated with the specific task and materials being used e.g. if the work is being performed near live electrical lines, the worker should use PPE constructed from non-conductive materials. Helmet lenses need to be dark enough to provide adequate protection for the brightness associated with the particular type of weld, while allowing the welder sufficient vision to work.

Comfort and maintenance are important too. Safety glasses or goggles that aren't comfortable and secure may distract the worker's attention from the task or may not provide the correct amount of protection. Lenses that are pitted or cracked may break at an inopportune time, so they should be replaced immediately.

Workers should also be familiar with basic first aid procedures, especially those for eye injuries. Following the right treatment minimizes the chances that the injury will have more serious complications. Workers should know when to perform first aid themselves and recognize when emergency care should be performed only by medical professionals.

Never Stop Learning

Training should be a constant process for welders and those who work with cutting torches. An ongoing safety program reduces the chances of workers becoming complacent and ensures that those workers always have the most up-to-date information as new techniques and technologies are developed.

<https://safetymanagementgroup.com/the-hot-facts-about-welding-and-cutting-safety-2/>