

Fact Sheet Cold/hot working conditions (Belgium/ stand 2016)

I. Description of work environment and exposures (= risk assessment)

Climate is defined by the parameters :

- Air temperature (°C)
- Humidity (relative humidity in %)
- Airflow (m/s)
- Heat flux density (radiation) (W/m²)

Cold working conditions: persons working inside (cold room, freezer room,...) or outside at temperatures below 7°C (ACGIH reference)

Workplaces with wind or draughts increase the cooling effect on the body. Local cooling is possible by direct contact with cold surfaces.

Hot working conditions: persons working inside (steel foundry, glass industry, kitchen, laundry,...) or outside (construction, agriculture,...)

Persons exposed to these working conditions have physical demands and on cognitive – mental demands. Risk assessment is based on climate factors, work time and load, personal factors (e.g. age, BMI, medical history,...) and preventive measures (beverages, clothing,...).

II. Personal protective devices

Clothing and personal protective equipment

III. Health demands

No relevant disorder of

- cardiovascular system
- respiratory system
- skin
- liver and kidneys
- gastrointestinal system
- neurological system: seizures
- eyes
- hormones : hypo or hyper-thyroid, diabetes mellitus
- body weight
- no addiction to alcohol, drugs or medication

IV. Medical examination:

- a) mandatory and periodically recurrent: physical and mental aptitude and prevention examination
- b) no post exposition examination

V. Medical examination methods

Clinical examination

- spirometry
- chest x-ray
- ECG
- blood samples
- urinalysis

VI. Occupational medical expertise and advice

a) Improvement of work environment

- Technical aspects that have an impact on climate factors (e.g. ventilation)
- Work organization : decrease the work load and/or work time, more rest periods

b) Improvement of personal behavior

- Physical and mental fitness
- Appropriate clothing (+ shoes), (cold or warm) beverages

VII. Re-Integration (return to work) management of long term sick employees

A person with previous heatstroke is not fit for further work in hot conditions. Persons with other fitness problems have to be examined and evaluated individually.