In adverse environmental conditions, whether heat or cold, our bodies make physiological adjustments to keep our temperature within normal limits. The extent of the adjustments varies, depending on the interaction between:

- The environmental conditions in the workplace (temperature, humidity, solar radiation, etc.).
- The physical activity carried out (the greater the physical activity, the greater the heat gains).
- The clothing that is worn.

**How can our body regulate temperature changes?**

The body’s temperature must be kept constant.

The internal body temperature is maintained by balancing heat gains and losses.

- **If body temperature increases**, mechanisms are activated to reduce it, including sweating (evaporation of heat) and vasodilation (helps heat to leave the body).
- **If body temperature drops**, mechanisms are activated to increase it: vasoconstriction (to avoid heat loss) and an involuntary increase in metabolism (shivering and shaking).
Exhaustion due to dehydration and loss of salt.
Cramps that could appear after sweating intensely.
General symptoms: a general feeling of being unwell, headache, etc.
Digestive symptoms: nausea and vomiting.
Cardiovascular symptoms: fainting, pale skin, palpitations.
Neurological symptoms: disorientation, confusion, vertigo.

Behavioural symptoms:
- Reduced concentration and attention span.
- Irritability.
- Reduced mental and physical performance.

Physical signs:
- Reddening of the skin.
- Sensation of numbness in part of the body that may hinder movement.
- No touch sensitivity.
- Swollen/tingling the hands.
- Eczema.
- Dry skin.

Intense exposure to heat

Intense exposure to cold

Chronic effects:
Prolonged exposure to low temperatures could cause pulmonary (chronic bronchitis, pneumonia, etc.), hearing (otitis) or eye (conjunctivitis) problems.

When preventive measures and thermoregulation mechanisms fail, a series of warning signs could appear that we should be aware of:

If you notice any of these warning signs, stop work.

Call the relevant Health Surveillance and Promotion Centre (ViPS) so that they can advise you on what to do.

Some people are more likely than others to suffer adverse effects of heat or cold. People who are not in good physical condition, suffer from a chronic illness, have bad eating habits, take certain drugs or are not used to working in adverse environmental situations are at greater risk from stress caused by heat and cold.
Working outside: adverse weather conditions

Follow these general recommendations for working outside

**INTENSE COLD**
- Try to carry out tasks in the middle of the day.
- Do not work alone so that you can ask for help if you encounter problems.
- Whenever possible, avoid working outside when the weather conditions are unsuitable (strong wind, rain, etc.).

**INTENSE HEAT**
- Solar radiation
- Whenever possible, work in the shade. If this is not possible, use accessories to shield yourself from the sun and put sun cream on any exposed areas.
- When possible, keep away from surfaces that could accumulate or transmit heat.
- Try to work first thing in the morning and last thing in the afternoon. If this is not possible, take frequent breaks in cooler environments and avoid continuous exposure.

**Recommendations**
- Exposure to heat or cold
- Heath effects
Follow these *indications* for working in *hot environments*

**Recommendations:**

- **Drink cool water regularly** (not cold water). Do not wait until you feel thirsty.
- **Avoid drinking alcohol** or drinks that contain stimulants such as *caffeine*, as these increase dehydration.
- Do not take off *clothing* as this can act as a *protective screen*.
- **Avoid high fat foods** and try to eat a light diet.
Follow these **indications** for working in **cold environments**

**Recommendations:**

- **Consume hot food and drinks.** They should provide the calories that the body needs.
- It is important to **drink plenty of liquids.** Drink more warm, sweet, caffeine-free and non-alcoholic drinks to compensate for loss of water through the lungs and skin, and thus prevent potential dehydration.
- **Use suitable clothing,** combining different layers rather than just one item to create an insulating effect.
- **When your tasks are static or sedentary,** try to incorporate movements that help to **increase your body temperature.**