



Regulation of body temperature

Body temperature disorders can cause serious illness.

Exercise associated hyperthermia in a healthy athlete can lead to life threatening illness, including liver failure, cardio-respiratory collapse and death.

Hypothermia occurs a cold or wet environment with a decrease in body temperature below 35 °C.

For athletes and coaches

Hyperthermia: increase in body temperature ≥ 40 °C

Why ? Exercise hot and humid environments, insufficient training, non-acclimatization, and genetic predisposition, Symptoms to be aware of and to spot: it is a medical emergency and it is a rapid increase in temperature above 40 ° associated with neurological symptoms (headache, even severe headache, irritability, confusional state up to coma.

There may be warning signs that are not specific: tiredness, fatigue, headache, cramps, abdominal pain, vomiting or diarrhea, seizures. Please note that convulsions may occur mainly during the cooling period.

Cardiovascular system: increase in heart rate with a risk of collapse to cardiogenic shock.

Pulmonary system: increase in respiratory rate up to acute respiratory distress syndrome.

Liver damage may occur 24 to 48 hours after the event which justifies close monitoring even if the temperature returned to its initial, normal stage. Kidney function monitoring should also be done.

Heat stroke is a medical emergency and immediate cooling and rapid lowering of body temperature can save lives.

Immediate immersion in an ice bath can save lives and body temperature should return to normal within the first hour

Alternatively put the patient in a cool place, undress him, moisten his body surface, favor a draft with the edge and apply ice to the neck, armpits and these creases in the groin.

Immersion in cold water is also recommended by some

Put on oxygen and start cold infusions for rehydration and cooling (medical team)

Hypothermia: it is just as serious as hyperthermia and it causes progressive deterioration of vital functions and leads to cardiovascular collapse.

Why ? : Sports practice extended in the cold, presence of a cold wind, wet, unsuitable equipment, consumption alcohol, cannabis, drugs, dehydration, consumption of energy drinks (caffeine, taurine ...), taking drugs increasing sensitivity to cold (benzodiazepines, anti depressants, beta blocker ...). Some predisposing states: diabetes, endocrine disease... Individual sensitivity and the age of the sportsman.

Beware of children who are not very resistant to cold.

3 stages in hypothermia :

Light from 36 to 32 °C

Symptoms: chills, chicken flesh, cold sensations, rapid heart rate, difficulties respiratory, want to urinate

Reaction: moving, survival blanket or clothing, eating, lukewarm or hot drink or sugary drinks, take shelter from the wind, put yourself in a warmer place.

Moderate from 32 ° to 30/28 °C

Symptoms: end of the shiver with rather tremors, feeling of well-being with decrease in frequency cardiac, early coma

Reaction: do not move too suddenly, react, speak, warm up slowly by all means and call the relief.

Advice: do not massage or rub or reheat too quickly

Severe, severe and deep below 30/28 °C

Symptoms: coma, slowing of vital functions with the possibility of apparent death

Reaction: it is a vital emergency, must be carried out by medical specialists with gradual warming of 1 ° per hour.

⇒ In practice it is impossible to know the temperature since the current thermometers are graduated generally from 36.5 ° C

Also know the risks of exposure to cold on the extremities: less frequent due to current technicality equipment against the cold:

Nail: painful numbness at the fingertips. The warm-up phase is very painful and can be accompanied by nausea.

Frostbite: purplish papules sitting at the ends preferentially at the feet accompanied by edema and pruritus.

Frostbite: deep lesion with tissue necrosis due to a lack of vascularization.

We invite you to watch the hot spot movie.

Important- do not stop resuscitation until the body temperature is back to normal, as there have been cases that patients with severe hypothermia have survived after prolonged resuscitation. A doctor skilled in hypothermia should be leading the treatment.

CONDITIONS ENVIRONNEMENTALES



J'anticipe et me prépare aux conditions environnementales extrêmes lors de l'exercice.