

Mountain Hypothermia

How to Spot, Treat and Prevent Hypothermia



Hypothermia

- Hypo meaning Less or Lacking
- Thermia meaning Heat or Generation of Heat
- Hypothermia is a medical emergency that occurs when your body loses heat faster than it can produce heat, causing a dangerously low body temperature.
- Normal body temperature is around 37 C. Hypothermia occurs as your body temperature passes below 35 C

Dangers of Hypothermia

- Hypothermia is the dominant cause in most fell runner deaths.
- It is a major concern in many Mountain Rescue call-outs. On the hill the condition is generally seen as Exhaustion Hypothermia.
- Hypothermia creeps up so slowly that its victims do not notice the symptoms of its gradual onset.
- Immersion Hypothermia is brought about by sudden heat loss typically caused by falling in water – or a particularly large bog.

Mountain Hypothermia

"A decrease in the core body temperature to a level at which normal muscular and cerebral functions are impaired"



Mountain Hypothermia is potentially a dangerous problem faced by hill walkers at any time of year.

The Core consists of the Brain, Heart, Lungs and other vital organs. The Shell consists of the limbs, skin and muscle.

Normal body core temperature is 37°C
The body core temperature has to fall from its normal 37°C by only 2°C to cause hypothermia problems

This temperature can continue to fall to a life threatening 28°C

Causes of Hypothermia

- Cold** An important factor but rarely causes mountain hypothermia by itself
- Wet** Water reduces the insulating properties of clothing, and evaporation from wet clothing takes a lot of heat from the body
- Wind** Causes heat loss on exposed skin and through non windproof clothing, as well as increasing the rate of evaporation from wet clothing

A combination of any 2 or all 3 of the above can cause mountain hypothermia

Contributing Factors

- **Exhaustion** This is a major factor. It can be caused by walking too far, too fast, carrying too heavy a load, hunger and poor clothing.
- **Morale** Low morale usually happens because of exhaustion or a combination of the above



Signs and Symptoms

All Walkers must be aware of mountain hypothermia and know what warning signs to look for.

You should be keeping an eye on each other during a day out.

The casualty is usually the last person to realise that something is wrong. If one person in a group is showing signs of mountain hypothermia, check with everyone else in your party, they might be showing symptoms as well.

You've all been out in the same conditions.

**Watch out for the "umbles"
The Stumbles, Mumbles,
Fumbles and Grumbles**

°C	Symptoms
37	Normal body temperature
35	Shivering, looks cold, feels cold
34	Change in personality, introverted, withdrawn, 'switched off'
33	Shivering stops, drowsy, lowered level of consciousness
32	Limbs stiffen up
31	Progresses quickly to unconsciousness
30	Fixed dilated pupils
29	Heart (Pulse) irregularity
26	Death

Signs and Symptoms

Early warning signs

- Feeling cold and unhappy
- Complaining and grumbling
- Slowing down or lagging behind
- Difficulty crossing rough ground
- Slowing mentally and physically
- Slurring speech
- Poor coordination
- Spells of shivering

More serious signs

- Feeling bitterly cold
- Stumbling
- Judgement affected, becoming confused
- Drowsy
- Difficulty getting back on feet after rest
- Shivering becoming uncontrollable
- Disregard for cold (Jacket open, gloves off etc)

Danger signs

- Shivering stops
- Slow jerky movement
- Falling down
- Collapse
- In and out of consciousness
- Hallucinations
- Slow breathing and pulse

The symptoms do not have to appear in a specific order
Your body can skip a lot of the symptoms if you are losing body heat at an accelerated rate
The sooner you identify the symptoms, the easier it is to recover

Prevention

“Prevention is better than the cure”

Wear proper wind and waterproof clothing to protect you from the elements

Hats, gloves, rain jacket and leggings should always be carried
Attempt only what you know you can physically achieve

Eat sufficient energy producing food before and during your walk, drink water regularly

Plan your route taking weather conditions into account
Be prepared to abandon your days walk

Turn back or get off on the quickest (and safest) route if group members start to show symptoms

Treatment

The basic principles of re-warming a hypothermic victim is to conserve the heat they have, and replace the body fuel they are burning up to generate heat.

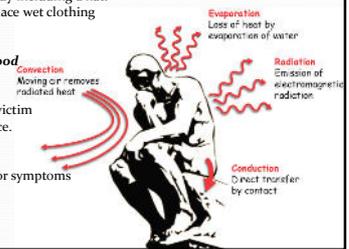
SEEK SHELTER

Try to get them out of the wind and rain.
A bivvy bag or group shelter is invaluable to help with this
Give additional clothing for the whole body including a hat.
If you are sheltered from the weather replace wet clothing

Insulate from the ground

Warm sweet drinks and high energy food
NO alcohol, caffeine or tobacco

Reassurance, helps moral and cheers up victim
Do not use rubbing or external heat source.
This takes heat away from the core
While giving them all this attention,
remember to keep an eye on each other for symptoms



Post Hill Treatment

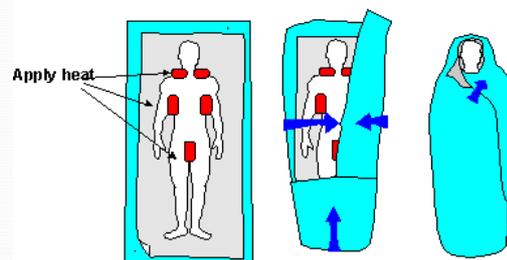
If the casualty has severe hypothermia or has lost consciousness, do not attempt to evacuate off the mountain

Keep the casualty as comfortable as possible and send for help
If the casualty shows less severe signs of hypothermia, do not attempt to finish the walk find the quickest and safest route off the mountain

Once off the hills, continue reheating and refuelling
Also, seek medical advice

It is important to note that if a person has had hypothermia once during the day, they are more susceptible to having it a second time. And it will be more severe

Hypothermia Wrap





Any other injury that may cause concerns?