

# The Chilling Facts

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**W**e all know what happens when we have a fever, your temperature rises, but do you know what happens to your body when your temperature drops? **HYPOTHERMIA** occurs, and it is a serious, life-threatening, medical condition that can kill!

It occurs when you lose your body heat faster than you can produce it, causing a rapid, progressive mental and physical collapse of the body, along with the chilling and temperature drop of the inner core of the body.

When we talk about the inner core of the body we are talking about the internal organs, particularly the heart, lungs and brain. Being exposed to cold, wet, windy conditions increases the chances of becoming hypothermic. The symptoms and the effects of hypothermia are increased by immersion in water and ex-



*It's a fair bet these two individuals are suffering from hypothermia!*

haustion. Many of us work and recreate in the outdoors and around water so that is why we should be aware of hypothermia ... what it is ... and how it affects us. It is the “unknown” of hypothermia that kills!

**O**ur normal body temperature is 98.6 F. Most hypothermia cases on land develop in air temperatures between 30 and 50 F. Most people working and recreating in those temperatures don't believe that those temperatures can be dangerous. Immersion in cold water speeds up the loss of body heat and the chances of survival greatly decrease.

If you fall into cold water do not attempt to swim unless safety is near and always have your life jacket on. No one expects to or wants to be in cold water ... It is that unexpected plunge that kills.

Think of it ... our normal body temperature is 98.6 F., 70 F water is cold! Here in the Midwest we are lucky to see two to 3 1-2 months a year where the river and lake waters are above 70 F.

My hobby is triathlons and I can tell some good stories about swimming in cold water in the Midwest during the summer months ... and that's swimming with a wet suit on! I'm sure our dive team for the Rock Island District has some stories to tell too! (See chart)



**Remember that drinking alcohol lowers the body temperature 2-3 F by dilating the blood vessels.**

Hypothermia is a medical emergency that needs immediate care. If you or someone else is hypothermic activate your local emergency number or call 911 and follow these steps:

1. Get yourself or the person to a warm place.
2. Remove wet clothing.
3. Gradually re-warm the body by wrapping in blankets or putting on dry clothes. Cover the head to prevent further heat loss. Up to 50 percent of you heat loss can escape from the head. Rapid rewarming can cause dangerous heart rhythms.
4. Drink warm nonalcoholic and decaffeinated liquids.
5. If a person is unconscious, monitor their breathing and pulse, and be prepared to give rescue breathing or CPR.

#### Conditions that can lead to Hypothermia

- ⇒ Cold temperatures
- ⇒ Cold water
- ⇒ Improper clothing and equipment
- ⇒ Wetness
- ⇒ Wind
- ⇒ Fatigue and exhaustion
- ⇒ Dehydration
- ⇒ Poor food intake
- ⇒ Lack of knowledge about hypothermia
- ⇒ Alcohol consumption

#### Water Temperature

32.5 F  
32.5 to 40  
40 to 50  
50 to 60  
60 to 70  
70 to 80  
Over 80

#### Exhaustion

Under 15 min.  
15 to 30 min.  
30 to 60 min.  
1 to 2 hrs.  
2 to 7 hrs.  
3 to 12 hrs.  
Indefinite

#### Survival Time

Under 15 to 45 min.  
30 to 90 min.  
1 to 3 hrs.  
1 to 6 hrs.  
2 to 40 hrs.  
3 to indefinite  
Indefinite

**Be aware of "afterdrop" which is when the core temperature decreases during rewarming. This is caused by the vessels in the arms and legs dilating if they are rewarmed, thus sending this cold, stagnate blood to the heart and lungs, which can lead to further temperature drop and death.**



### Know the symptoms of hypothermia

- Uncontrollable fits of shivering
- Vague, slow, slurred speech
- Memory lapses or incoherence
- Immobile, fumbling hands
- Frequent stumbling
- Drowsiness (to sleep is to die)
- Apparent exhaustion. Inability to get up after resting

This article is just hitting the tip or the iceberg of hypothermia! There is much written out there on this subject and it is just a click away. Give the Safety Office, ext. 5280, or myself, ext. 5484, a call if you have any questions and want some more detailed information. Stay safe and warm! 