

## Water Safety: The Effect of Cold Water on the Body

Many people are tempted to go for a swim in reservoirs to cool off on a hot day. This is very dangerous for a number of reasons; the main reason being that the water is very deep and very very cold.

Cold water has 4 main effects on the human body that can lead to disorientation, and possibly death.

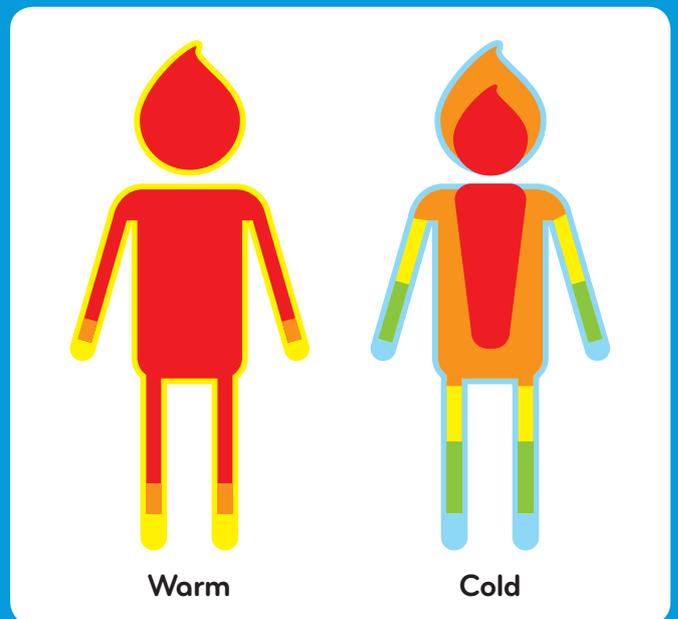
### 1. Cold shock Response

- From 1-3 minutes from immersion in cold water
- Causes involuntary gasping
- Causes hyperventilation
- Can cause the breathing in of water to the lungs
- **THE MOST COMMON CAUSE OF DROWNING IN COLD WATER**



### 2. Cold Incapacitation

- From 5-15 minutes from immersion in cold water
- Blood is redirected from the muscles to keep the core warm
- Causes numbness in limbs
- Makes meaningful movement of arms and legs difficult
- The ability to swim and stay afloat is decreased that can lead to drowning



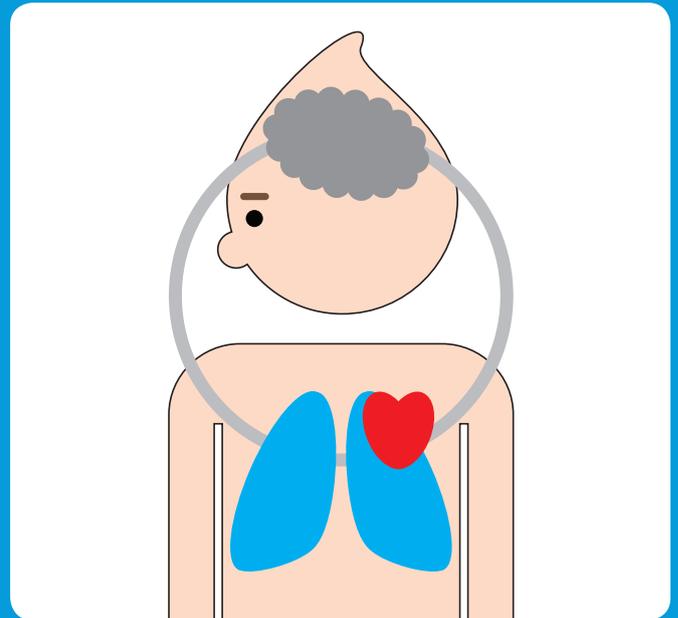
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### 3. Hypothermia

- From around 30 minutes from immersion in cold water
- Causes shivering
- Causes mental confusion
- Effects heart and brain function
- Causes the body to shut down and death in severe cases



### 4. Post Immersion collapse

- Generally occurs just before or after rescue/reaching safety
- Mental relaxation can cause a quick drop in blood pressure
- Can cause muscle failure
- Can cause fainting and loss of consciousness
- Can cause death by cardiac arrest

