

**Offshore Special Regulations**

**OSR Appendix J – Hypothermia**

A submission from Australian Sailing

**Purpose or Objective**

To update the OSR with contemporary information about hypothermia.

**Proposal**

**APPENDIX J  
Hypothermia**

**WHAT IS IT?**

A condition in which exposure to cold air and/or water lowers body core temperature. Death **may result from the brain and heart being exposed to an extremely low temperature.** ~~Death can result from too low a brain and heart temperature.~~

**SYMPTOMS OF HYPOTHERMIA**

The following are warnings signs of hypothermia:

- Shivering
- Exhaustion or feeling very tired
- Confusion
- Fumbling hands
- Memory loss
- Slurred speech
- Drowsiness

**WHY BE CONCERNED?**

Hypothermia, even mild cases, decreases crew efficiency and increases risk of costly accidents. ~~Proper planning against hypothermia can give a winning competitive edge.~~

**PREVENTION**

- Wear warm clothing and a lifejacket/harness. Have proper foul-weather kit for all crew. Dry suits are excellent. Insulate all areas of the body, especially the high heat-loss areas: head, neck, armpits, sides of chest and groin. Keep warm and dry, but avoid sweating; wear layered clothes.
- Rotate watch frequently.
- Get plenty of rest, prevent fatigue.
- Eat and drink normally, *no alcohol*.

- ~~• Prevent dehydration; watch urine colour (drink more if colour becomes more intense).~~
- ~~• Avoid seasickness.~~
- Take into account special medical problems of crew members.
- Regularly train crew in ~~Man~~ **Crew** Overboard recovery.
- Have two or more crew trained in CPR (Cardio-pulmonary Resuscitation).
- **Practice donning survival suit (if carried) prior to departure. Know where they are stowed.**

### **SURVIVAL IN COLD WATER (under 75°F, 25°C)**

- **If boat is in trouble**, put on dry or survival suits if carried. Radio for help; give position, number of crew, injuries, boat description. Make visual distress signals. Stay below if possible. Remain aboard until sinking is inevitable.
- **If going overboard**, launch life raft and EPIRB (Emergency Position Indicating Radio Beacon). Take grab bag, visual distress signals and waterproof hand-held VHF. Get into raft, stay out of water as water conducts heat out of the body 20 times faster than air. Remain near boat if practicable.
- **If in the water**, crew should stay together near the boat. This makes everyone easier to find, helps morale. Enter life raft, keep dry suit or survival suit on if worn.
- **If not wearing dry suit or survival suit**, make sure you wear a lifejacket, keep clothes and shoes on for some insulation and flotation. Keep hat on to protect head. Get all or as much of body out of water as soon as possible – into raft or swamped boat or onto flotsam. Avoid swimming or treading water, which increases heat loss. Minimise exposed body surface **by hugging knees against chest. If in a group form a circle by putting arms over shoulders of adjacent crew.** A splashguard accessory on the lifejacket greatly improves resistance to swallowing seawater and also accommodates involuntary “gasping” when plunged into cold water.

### **WARNING**

- First aid for severe and critical hypothermia is to add heat to stabilise temperature only. Rapid re-warming, such as a hot shower or bath, may be fatal; it will, at least, cause complications. Allow body to re-warm itself slowly.
- Body core temperature lags behind skin temperature during re-warming. Keep victim protected for extended period after apparent full recovery or medical help arrives. *Many hours are required for full return to normal temperature even though victim says he has recovered.*
- Always assume hypothermia is present in all ~~man~~ **crew** overboard situations ~~in~~ **during** which victim has been exposed for more than 10–15 minutes
- Victims may also be suffering from near-drowning, thus needing oxygen. Observe for vomiting.
- In a helicopter rescue, protect victim – including the head – from rotor blast wind chill.

### **ALL CASES**

- Keep victim horizontal
- Move victim to dry, **warm, wind protected area** ~~shelter and warmth.~~
- Allow to urinate from horizontal position
- Handle gently
- Remove **very** wet clothes – cut off if necessary
- Apply mild heat (comfortable to your skin) to head, neck, chest and groin – use hot water bottles, warm moist towels
- Cover with blankets or sleeping bag; insulate from cold – including head and neck
- Report to Doctor by radio

### **HYPOTHERMIA FIRST AID**

#### **MILD CASES**

- Primary task is to prevent further heat loss and allow body to re-warm itself
- Give warm, **sugary** ~~sweet~~ drinks – *no alcohol – no caffeine*
- Apply mild heat source to stabilise temperature and/or
- Re-heat to point of perspiring
- Keep victim warm and horizontal for several hours

#### **MODERATE CASES**

- Same as above
- Offer sips of warm **sugary** liquid only if victim is fully conscious and able to swallow without difficulty – *no alcohol – no caffeine*
- Have victim checked by doctor

#### **SEVERE CASES**

- Obtain medical advice as soon as possible using your radio
- Assist victim, but avoid jarring him – rough handling may cause cardiac arrest or ventricular fibrillation of heart
- No food or drink
- Observe for vomiting and be prepared to clear airway
- *Ignore pleas of “Leave me alone, I’m OK” victim is in serious trouble – keep continuous watch over victim*
- Lay victim down in bunk, wedge in place, elevate feet, keep immobile; no exercise
- Apply external mild heat to head, neck, chest and groin – keep temperature from dropping, but avoid too rapid a temperature rise

#### **CRITICAL CASES PATIENTS**

- *Always assume the patient is revivable – hypothermic victims may look dead. **Do not** ~~don't~~ give up – pulse very difficult to feel, breathing may have stopped*
- Handle with extreme care
- Tilt the head back to open the airway – look, listen and feel for breathing and pulse for *one to two full minutes*

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- If there is any breathing or pulse, no matter how faint or slow, ~~do not give CPR~~, but keep a close watch on vital sign changes
- Stabilise temperature with available heat sources, such as naked chest to back warming by other crew member (leave legs alone)
- If no breathing or pulse for one or two minutes, *begin CPR immediately. Do not give up until victim is thoroughly warm – alive or dead, unless these efforts put the crew in danger or advised by trained medical personnel.*

*Medical help imperative – hospitalisation needed*

Current Position

As above without the proposed change.

Reasons

A working party was formed to review the medical sections of the OSR. The working party drew on subject matter expert opinion from Associate Professor David Austin (AUS/NZL) and Clinical Professor Andrew Nathanson, MD (USA) for the recommendations. The working party found that Appendix J required changes to align the OSR with contemporary medical advice.

- The appendix should include basic symptoms of hypothermia.
- Dehydration and seasickness are not pertinent to hypothermia.
- Familiarity with survival suits prevents the risk of them not being used or being donned improperly.
- Reducing exposed body surface is important and this has been better explained.
- First aid in response to hypothermia required small clarifications to sheltering the person and making the distinction between sugary drinks and those artificially sweetened.
- CPR may be stopped if these efforts put the crew in danger or when acting on the advice of trained medical personnel.

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