



Offshore Supplement to Standard First Aid

Table of Contents

Section / Topic	Slide
Selected Medical Topics	3
Hypothermia & Cold Water Immersion	4
Crew Preparation & Medical Information	17
Suggested Supplies & Medications	18
Food Safety	19
Remote Medical Support at Sea	20
Appendices	25

Selected Medical Topics

- Seasickness
- Wounds
- Infections
- Burns
- Sunburns

See

<http://www.vicmaui.org/pdfs/VM2014%20Selected%20Medical%20Topics.pdf>



HYPOTHERMIA & COLD WATER

Hypothermia Introduction

Definition:

body core temperature drops below normal

Causes:

exposure to cold or wet conditions,
heat loss greater than heat generated;
dehydration, fatigue are contributors

Hypothermia Symptoms

MILD CONDITIONS (97-93°F, 36-34°C)

- Shivering, cold hands and feet;
- Still alert and able to help self;
- Numbness in limbs, loss of dexterity, clumsiness;
- Pain from cold

MODERATE CONDITIONS (93-90°F, 34-32°C)

- Confusion, loss of time estimation and reasoning power

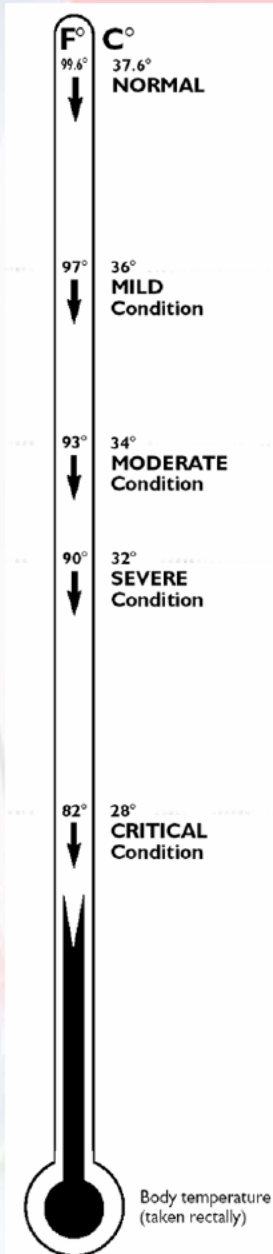
SEVERE CONDITIONS (90-82°F, 32-28°C)

- Shivering decreases or stops;
- Further loss of reasoning and recall, confusion, abnormal behaviour;
- Victim appears drunk; very clumsy, slurs speech, denies problem and may resist help;
- Unable to help themselves;
- Victim semiconscious to unconscious;
- Muscular rigidity increasing

CRITICAL CONDITIONS (82°F, 28°C and below)

- Unconscious, may look dead;
- Little or no apparent breathing;
- Pulse slow and weak, or no pulse found;
- Skin cold, may be bluish-grey colour;
- Very rigid

Note: Most physical symptoms vary with each individual. In general, as body temperature falls, symptoms will increase.



Hypothermia Prevention

- Wear proper clothing; stay dry and warm
- Stay out of cold water
- Get adequate food, fluids and rest
- Watch for symptoms

Hypothermia Treatment

General

- Handle the person gently, ideally horizontally
- Get them out of the cold environment
- Remove any wet clothing, keep dry and warm
- Do not rub skin or give alcohol or hot drinks

Hypothermia Treatment

Mild to Moderate

- See general treatment, plus
- *Rewarm slowly*
- *Apply mild external heat to core*
- *Give warm sweet drinks if conscious and capable*

Hypothermia Treatment

Severe to Critical

- See general treatment, plus
- *Seek immediate medical advice/attention*
- *Apply mild external heat to core to maintain temperature only*
- *No food or drink*
- *Continuous observation; keep airway clear*
- *Check heartbeat and respiration carefully*
- *Resuscitate if necessary; they aren't dead, until they are warm and dead*

Hypothermia Treatment Cautions

- Avoid peripheral stimulation or rapid warming
- Many hours are required to fully recover; victim may be in denial
- Assume some hypothermia is present with all cold water immersions longer than ten minutes
- If immersion occurred, consider possibility of near-drowning, vomiting
- Protect victim from further exposure during transport/transfers

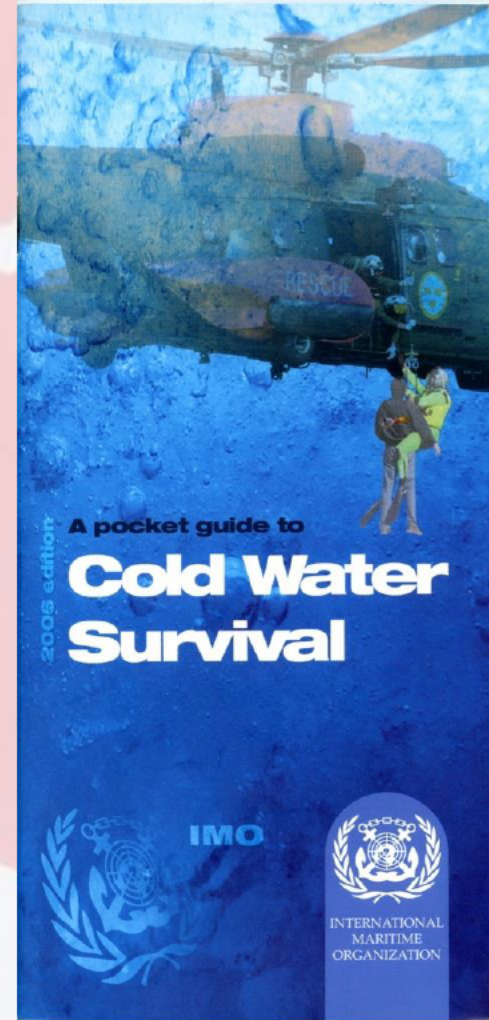
Cold Water Immersion

Water
Temperature
< 75°F or 25 °C

Immersion Shock

Swimming Failure
or Incapacitation

Hypothermia

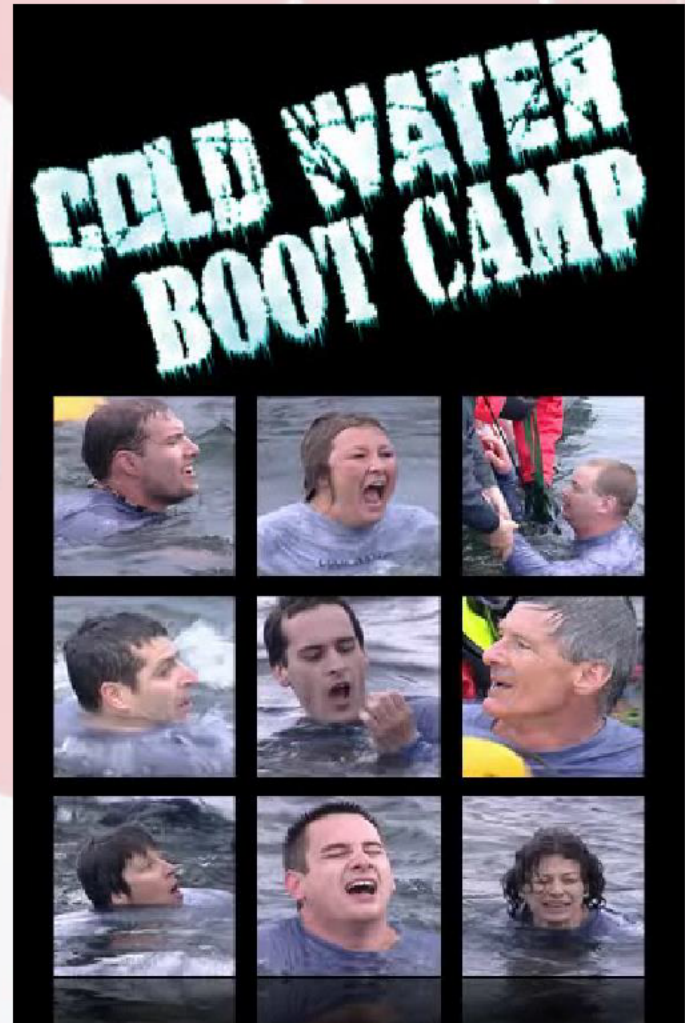


Cold Water “1-10-1”

Immersion
Shock

Swimming
Failure or
Incapacitation

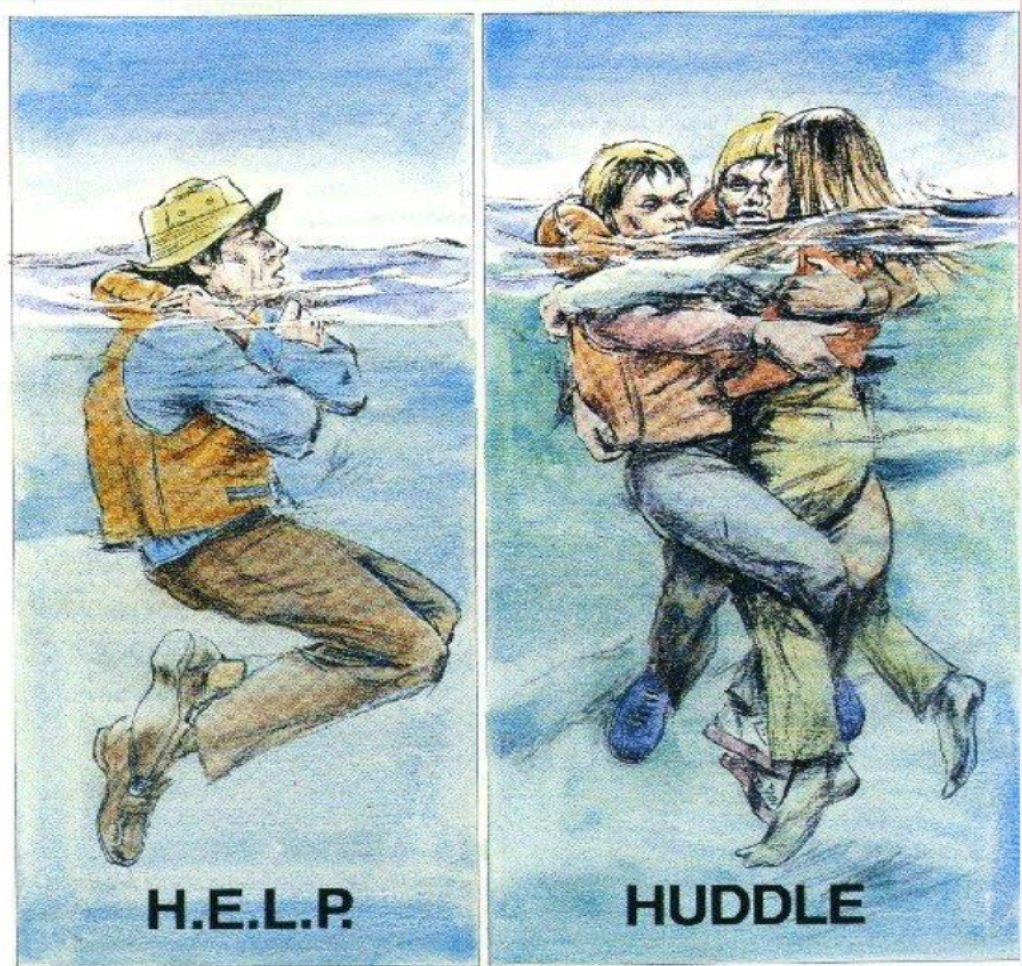
Hypothermia



Surviving Cold Water

Tomorrow you will practice the HELP and Huddle positions.

Also how to help out an injured person when in a huddle.



(Near-) Drowning

- Rescue
- Resuscitate
- Recovery
 - Continuous observation; keep airway clear
 - Seek immediate medical advice/attention
 - Hypothermia precautions
 - Secondary drowning risk



HYPOTHERMIA & COLD WATER SUMMARY

Crew Preparation & Information

- Preparation in advance of trip:
 - Physical and mental fitness
 - Medical and dental checkups
 - Personal medications, eyewear
- Crew Medical Information Forms
see
<http://www.vicmaui.org/pdfs/VM2014%20Crew%20Medical%20Information.pdf>

Suggested Supplies & Medications

- Suggested medical supplies:
 - <http://www.vicmaui.org/pdfs/VM2014%20Suggested%20Medical%20Supplies.pdf>
 - Consider an AED based on crew risk profile
- Suggested medications:
<http://www.vicmaui.org/pdfs/VM2014%20Suggested%20Medications.pdf>

Food Safety

- Personal hygiene, handwashing, fitness to handle food
- Food & water hygiene
- Cleaning and disinfection of surfaces and equipment
- Prevention of food poisoning
- Separation of raw and cooked foods
- Temperature control; cold stores $\leq 5^{\circ}\text{C}$

Remote Medical Support at Sea

Why and What:

- Recognizing that the resources and expertise on a boat at sea are inherently limited, the purpose of remote medical support is to assist or direct the people on the boat to provide the best possible care for an injured or ill crewmember
- Remote medical support is a service provided to boats at sea by shore-based personnel who can access a full range of specialized medical expertise appropriate to the specific situation
- Not a replacement for onboard training and supplies

Remote Medical Support at Sea

Who to contact:

- The event/race medical officer
- A remote medical support service provider who is under contract to the boat (arranged prior to departure)
- The local coast guard or a maritime Rescue Coordination Center – these can connect you with remote medical support
- Patient's personal physician (knows the patient, may not be familiar with providing remote medical support at sea)

Remote Medical Support at Sea

How to communicate:

- VHF, HF (SSB) radios
- Cellular, satellite phones
- Email, messaging devices
- Voice is good for interaction & timeliness
- Email, messaging is good for a detailed record
- Ideally, direct rather than relayed communications

Remote Medical Support at Sea

- Vic-Maui Race Medical Officer
Dr. Cheryl Holmes
medical@vicmaui.org
- Praxes Medical Group
(supports Clipper Race)
<http://praxes.ca/>
- Medical Support Offshore
(supports Volvo Ocean Race)
<https://www.msos.org.uk/>

Remote Medical Support at Sea: Contacting SAR Authorities

Methods	Emergency Numbers & Email
<ul style="list-style-type: none">• Satellite, cellular phones• Email, messaging• Marine VHF Ch.16• Marine MF/HF SSB e.g. 2182 kHz & up• Relay by other boats or persons onshore	<ul style="list-style-type: none">• JRCC Victoria 1-250-413-8933 1-800-567-5111 jrccvictoria@sarnet.dnd.ca• RCC Seattle 1-206-220-7001• RCC Alameda 1-510-437-3700 (also US Pacific SAR Coordinator)• JRCC Honolulu 1-808-535-3333• RCC Juneau 1-907-463-2000

Publications

- Marine Medicine, A Comprehensive Guide
- International Medical Guide for Ships
http://apps.who.int/iris/bitstream/10665/43814/1/9789240682313_eng.pdf
- Ship Captain's Medical Guide
<https://www.gov.uk/government/publications/the-ship-captains-medical-guide>
- Guidelines for Food Safety on ... Ships ...
https://www.shipownersclub.com/media/2016/08/FoodSafety_A4.pdf

Notes