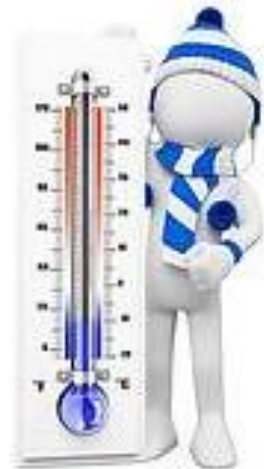




First Aid Response

Hypothermia & Hyperthermia





Learning Outcomes

Knowledge Objectives (by the end of this Unit, you will be able to...)

1. State the normal range in body temperature
2. Describe common causes of overcooling (hypothermia)
3. Describe common causes of overheating (hyperthermia)
4. List the signs and symptoms of overcooling
5. List the signs and symptoms of overheating
6. Outline the additional requirements when checking vital signs on a patient that has symptoms of overcooling
7. Describe basic treatment methods to avoid progression of a heat related condition



Learning Outcomes

Attitudinal Objectives (by the end of this Unit, you will be able to...)

1. Demonstrate an ability to respond to the needs of patients who have suffered from a heat related condition showing appreciation for the effects of pain and fear

Skills Objectives (by the end of this Unit, you will be able to...)

1. Demonstrate how to care for patients with hypothermia
2. Demonstrate how to care for patients with hyperthermia



Topics

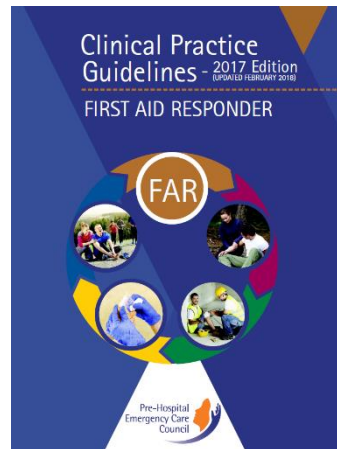
1. Body Temperature
2. Causes of Hypothermia
3. Causes of Hyperthermia
4. Signs & symptoms of Hypothermia & Hyperthermia
5. Care management for Hypothermia & Hyperthermia



Resources



Health Service
Executive





What Do We Know...

Q1. What is Hypothermia
and what effect does it
have on the body?



Q2. What is Hyperthermia
and what effect does it
have on the body?



Body Temperature

Normal Body Temperature?

37°C / 98°F

Vulnerable groups?

- Elderly
- Children
- Infants
- The sick
- People with mental illness
- Persons consuming alcohol or drugs

Reasons for losing Body Temperature?

- Cold weather
- Immersion in cold water
- Wind chill
- Ineffective drying off (after rain shower, hike, etc.)
- Insufficiently heating house (elderly)





Body Temperature

- Body heat is lost faster in cold water as opposed to cold air
- Large amount of body heat is lost through your head
- Adult* Body naturally regulates temperature
 - Sweating (too hot)
 - Shivering (too cold)

*Babies and toddlers can't yet

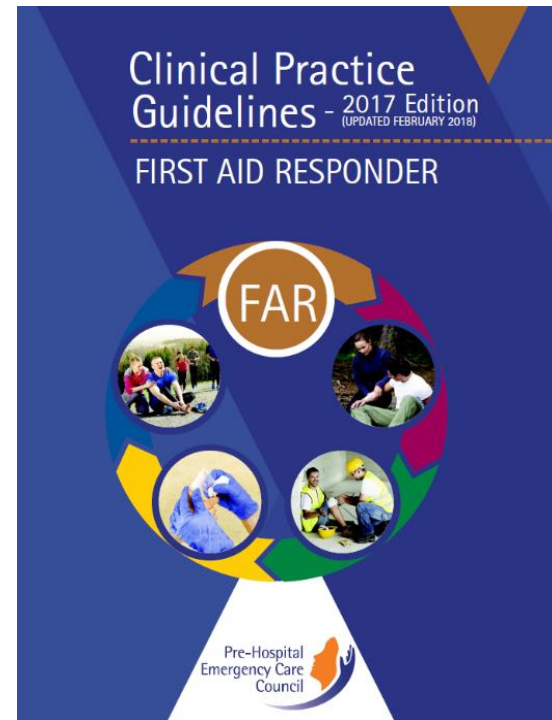




PHECC CPGs

- FAR CPGs (2017)
Hypothermia

CPGs
Page
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Hypothermia

- Body temperature falls below 35°C
- Body may shiver – effort to increase body temperature
- Body begins to “shut down”
 - Protect Heart & Brain
 - Heart rate slows
 - Brain activity slows
 - Blood supply returns to core of body





Hypothermia

Signs & Symptoms?

<u>Signs</u>	<u>Symptoms</u>
Pale skin	Feeling cold
Shivering	Mental Confusion
Weak pulse	Drowsiness
Slow, shallow breathing	Low energy
Slurred or mumbled speech	Apathy
Loss of consciousness	Feeling afraid
Muscle stiffness	Unable to think



Treatment of Hypothermia

- Identify reason for cooling
- Move patient out of cold & remove wet clothing
- Cover patient with blankets/clothing
 - Layers if possible
 - Cover head
- 112/999
- Warm drink
- Reassurance
- Monitor vital signs

**Warm patient gradually – do not
apply direct heat!**

Do not massage patient

**Handle patient
carefully**



Treatment of Hypothermia

Watch out for:

- Weak radial pulse **Why might it be weak?**
 - Reason: Blood supply to the peripheries is reduced in order to protect major organs

Solution? Take carotid pulse

Constantly monitor patient & check vitals!

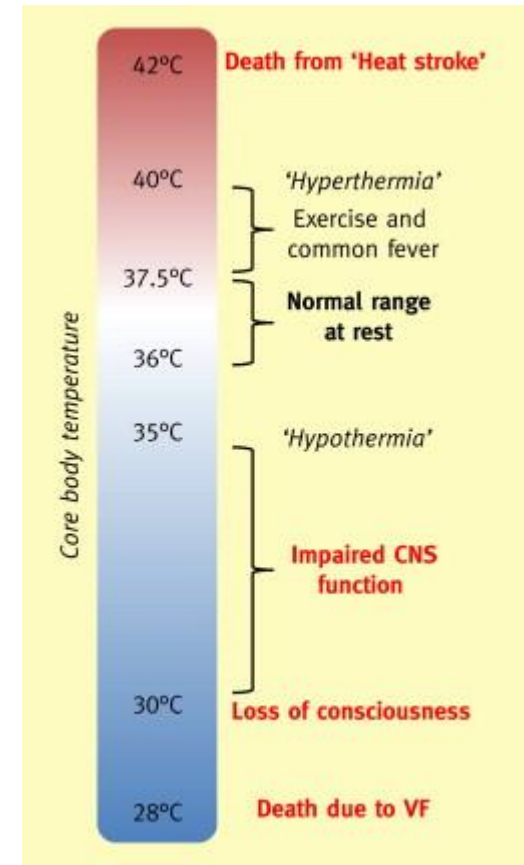
- Delayed or no cap refill
 - Reason: Reduced blood supply to the peripheries. May be no refill in more severe cases

Why delayed?



Hyperthermia

- Body temperature climbs above 38°C
- Causes
 - Sun exposure
 - Adverse reaction to drugs/medication
 - Over-exertion
 - Dehydration
 - People at risk (Sports, Concerts, etc)





Hyperthermia

Signs & Symptoms

<u>Signs</u>	<u>Symptoms</u>
Sweating	Nausea
Rapid Breathing	Sickness
Fast, weak pulse	Headaches
Hot, dry skin	Dizziness
Fainting	Low energy
Muscle cramps	Weakness
Reddened skin	Confusion



Treatment of Hyperthermia

- Identify reason for overheating
- Avoid further exertion
- Fluids
- Tepid bath/shower
- Avoid alcohol
- 112/999
- Reassurance
- Monitor vital signs

Q. How can we treat a patient suffering from Hyperthermia?

Constantly monitor patient & check vitals!





Assessment

- State the normal range in body temperature
- Describe common causes of hypothermia
- Describe common causes of hyperthermia
- List the signs and symptoms of overcooling
- List the signs and symptoms of overheating
- Outline the additional requirements when checking vital signs on a patient that has symptoms of overcooling
- Describe basic treatment methods to avoid progression of a heat related conditions



Summary

- Body Temperature
- Causes of Hypothermia
- Causes of Hyperthermia
- Signs & symptoms of Hypothermia & Hyperthermia
- Care management for Hypothermia & Hyperthermia