## SAQ 1

## How is an individual able to lose body heat?

## SAQ 2

## Describe the symptoms/signs and management of heat cramps:

## Symptoms/signs:

## Management, both initial and on-going:

## SAQ 3

## Describe the symptoms/signs of heat exhaustion:

## Symptoms/signs:

## Management, both initial and on-going

## SAQ 4

## Describe the symptoms/signs of heat stroke:

## Symptoms/signs

## Management, both initial and on-going

## SAQ 5

## What advice would you give an individual arriving to work in a high thermal load environment in order to reduce the risk of heat induced injury?

# Answers to Self-Assessment Questions

# SAQ 1 Answer

# *How is an individual able to lose body heat?*

# Your answer should have included all or most of the following:

# The body is able to lose heat by the following processes, of which the first two are the most important:

# Evaporative loss through sweating

# Radiation

# Conduction

#  Heat loss can also be affected by adjusting clothing

# SAQ 2 Answer

# *Describe the symptoms/signs and management of heat cramps.*

# Your answer should have included all or most of the following:

# *Symptoms/signs*

# The symptoms usually come on suddenly during vigorous physical activity. In severe cases, there may be excruciating pains in the limbs with associated nausea and tachycardia. The skin remains pale and moist. The conscious level remains unimpaired.

# *Initial management*

# This consists of removal to a cool, shaded environment with enforced rest.

# *On-going management*

# The patient should be given a supply of normal water and encouraged to drink.

# Physical activity should be kept to a minimum for at least 12 hours

# SAQ 3 Answer

# *Describe the symptoms/signs and management of heat exhaustion.*

# Your answer should have included all or most of the following concerning heat exhaustion:

# *Symptoms/signs*

# The condition may start with a faint or collapse. More usually there are symptoms of fatigue, nausea, headache, dizziness, leg and/or abdominal cramps. Signs include rapid pulse and rapid breathing. The skin may be pale and clammy with sweating. The patient may appear disorientated.

# *Initial management*

# This involves removing the patient to a cool, shaded environment. All clothing should be removed. The patient's body should be sponged with tepid water and cooled with fan to assist heat loss.

# *On-going management*

# Oral rehydration therapy is usually effective.

# The patient should not work for at least 24 hours after recovery or as directed by the Topside Doctor.

# If recovery is delayed, medevac to hospital may be necessary.

#  SAQ 4 Answer

# *Describe the symptoms/signs and management of heat stroke.*

# Your answer should have included all or most of the following concerning heat stroke:

# *Symptoms/signs*

# The patient may experience headache, dizziness, disorientation and nausea, but the onset of unconsciousness sometimes accompanied by a seizure may be the first sign. Signs include an altered conscious level, tachycardia with a bounding pulse and hot, flushed, dry skin.

# *Initial management*

# First Aid measures include maintaining the ABC with urgent removal to a cool environment and establishing cooling measures which may include:

# Gradual immersion in a cold shower

# Ice packs to the groin/axillae

# Placing the patient in an airflow, for example, fanning

# *On-going management*

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# SAQ 5 Answer

# *What advice would you give an individual arriving to work in a high thermal load environment in order to reduce the risk of heat induced injury?*

# Your answer should have included all or most of the following concerning acclimatisation:

# Individuals arriving to work in hot climates should be encouraged to pace their level of physical activity, building up over a period of 14 days. Physical activity should be reduced or curtailed when the environmental temperature is highest, for example, at midday. This requirement may necessitate rescheduling of work patterns.

# Remember:

# An individual's perceived need of fluid lags behind the physiological needs. Therefore, it is important that you encourage workers to increase their intake of fluids and salt in hot conditions.

# Intravenous fluid replacement is essential. Whilst maintaining and monitoring the vital signs the Topside Doctor should be consulted to arrange medevac.