

Chapter 6

First Aid onboard ship

Pre-reading activity:

- a. If a crew member gets infected by a virus or a disease, what are the measures that have to be taken?
- b. Make an emergency announcement.
- c. Describe an incident onboard of a crew member infected by a disease during a past voyage.
- d. Should a Captain know how to provide first medical aid if there is no doctor onboard?

Read the text and then answer the following questions.

First aid is the provision of initial care for an illness or injury. It is usually performed by non-expert, but trained personnel to a sick or injured person until definitive medical treatment can be accessed. Certain self-limiting illnesses or minor injuries may not require further medical care past the first aid intervention. First aid generally consists of a series of simple and in some cases, potentially life-saving techniques that an individual can be trained to perform with minimal equipment.

Conditions that often require first aid

A ship's Captain commands and manages all ship's personnel, and is typically in charge of the ship's accounting, payrolls, and inventories. The Captain is responsible for compliance with immigration and customs regulations, maintaining the ship's certificates and documentation, compliance with the vessel's security plan, as mandated by the International Maritime Organization. The Captain is responsible for responding to and reporting in case of accidents and incidents, and in case of injuries and illness among the ship's crew and passengers. A ship's Captain must have a Master's license or certificate, issued by the ship's flag state, or a state licensing authority if operating within "non-federal" waters. Various types of licenses exist, specifying the maximum vessel size indicated in gross tonnage and in what geographic areas the Captain can operate.

- Altitude sickness, which can begin in susceptible people at altitudes as

low as 5,000 feet, can cause potentially fatal swelling of the brain or lungs.

- Anaphylaxis, a life-threatening condition in which the airway can become constricted and the patient may go into shock. The reaction can be caused by a systemic allergic reaction to allergens such as insect bites or peanuts. Anaphylaxis is initially treated with injection of epinephrine.

- Battlefield first aid - this protocol refers to treating shrapnel, gunshot wounds, burns, bone fractures, etc. as seen either in the 'traditional' battlefield setting or in an area subject to damage by large scale weaponry, such as a bomb blast.

- Bone fracture, a break in a bone initially treated by stabilizing the fracture with a splint.

- Burns, which can result in damage to tissues and loss of body fluids through the burn site.

- Cardiac Arrest, which will lead to death unless CPR preferably combined with an AED is started within minutes. There is often no time to wait for the emergency services to arrive as 92 percent of people suffering a sudden cardiac arrest die before reaching hospital according to the American Heart Association.

- Choking, blockage of the airway which can quickly result in death due to lack of oxygen if the patient's trachea is not cleared, for example by the Heimlich Maneuver.

- Childbirth.

- Cramps in muscles due to lactic acid build-up caused either by inadequate oxygenation of muscle or lack of water or salt.

- Diving disorders, drowning or asphyxiation.

- Gender-specific conditions, such as dysmenorrhea and testicular torsion.

- Heart attack, or inadequate blood flow to the blood vessels supplying the heart muscle.

- Heat stroke, also known as sunstroke or hyperthermia, which tends to occur during heavy exercise in high humidity, or with inadequate water, though it may occur spontaneously in some chronically ill persons. Sunstroke, especially when the victim has been unconscious, often causes major damage to body systems such as brain, kidney, liver, gastric tract. Unconsciousness for more than two hours usually leads to permanent disability. Emergency treatment involves rapid cooling of the patient.

- Hair tourniquet, a condition where a hair or other thread becomes tied around a toe or finger tightly enough to cut off blood flow.

- Heat syncope, another stage in the same process as heat stroke, occurs under similar conditions as heat stroke and is not distinguished from the latter by some authorities.

- Heavy bleeding, treated by applying pressure (manually and later with a pressure bandage) to the wound site and elevating the limb if possible.

- Hyperglycemia (diabetic coma) and hypoglycemia (insulin shock).

- Hypothermia, or Exposure, occurs when a person's core body

temperature falls below 33.7°C (92.6°F). First aid for a mildly hypothermic patient includes rewarming, but rewarming a severely hypothermic person could result in a fatal arrhythmia, an irregular heart rhythm.

- Insect and animal bites and stings
- Joint dislocation
- Poisoning, which can occur by injection, inhalation, absorption, or ingestion
- Seizures, or a malfunction in the electrical activity in the brain. Three types of seizures include a grand mal (which usually features convulsions as well as temporary respiratory abnormalities, change in skin complexion, etc.) and petit mal (which usually features twitching, rapid blinking, and / or fidgeting as well as altered consciousness and temporary respiratory abnormalities).
 - Muscle strains and sprains, a temporary dislocation of a joint that immediately reduces automatically but may result in ligament damage.
 - Stroke, a temporary loss of blood supply to the brain.
 - Toothache, which can result in severe pain and loss of the tooth but is rarely life threatening, unless over time the infection spreads into the bone of the jaw and starts osteomyelitis.
 - Wounds and bleeding, including lacerations, incisions and abrasions, gastro-intestinal bleeding, avulsions and sucking chest wounds, treated with an occlusive dressing to let air out but not in.
 1. Name briefly the conditions that require first aid.
 2. What is the difference between hyperthermia and hypothermia?
 3. Give a definition of first aid.
 4. Who can provide first aid?
 5. Which of the conditions mentioned in the text can lead to death?
 6. What types of injuries are considered to be of minor importance?

Exercise 1

Complete the sentences with the appropriate preposition.

1. First aid a mildly hypothermic patient includes rewarming, but rewarming a severely hypothermic person could result a fatal arrhythmia, an irregular heart rhythm.
2. Anaphylaxis, a life-threatening condition which the airway can become constricted and the patient may go shock.
3. Hair tourniquet, a condition where a hair or other thread becomes tied a toe or finger tightly enough to cut blood flow.
4. Cramps muscles due to lactic acid build-..... caused either by inadequate oxygenation muscle or lack of water or salt.
5. Altitude sickness, which can begin susceptible peoplealtitudes as low as 5,000 feet, can cause potentially fatal swelling the brain or lungs.
6. Heat stroke, also known as sunstroke or hyperthermia, which tends occur during heavy exercise high humidity, or inadequate water,

though it may occur spontaneously some chronically ill persons.

Exercise 2

Translate into Greek the following types of injuries / illness mentioned in the text.

- a. laceration =
- b. abrasion =
- c. incision =
- d. swelling =
- e. avulsion =
- f. strain / sprain =
- g. poisoning =
- h. bleeding =
- i. heat stroke =
- j. chocking =
- k. cramp =
- l. heart arrest =
- m. sunstroke =
- n. altitude sickness =
- o. fracture =
- p. anaphylaxis =
- q. hypothermia =
- r. hair tourniquet =
- s. amputation =

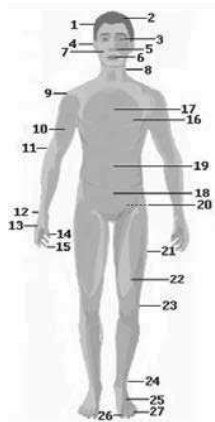
Exercise 3

Make sentences with the words that follow.

1. shipping
2. labour
3. fishing
4. international
5. practical
6. outdated
7. short sea
8. non-commercial
9. theoretical
10. naval

Exercise 4

Write the names of the respective parts as they are shown by the arrows.



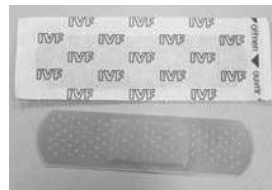
Exercise 5

Read the texts that follow and try to complete the gaps with the words given for each one of them.

TEXT A

legislation, contents, adhesive, supply, treatment, seasickness, airborne, medication, infection, anticipated, exhale

A **first aid** kit is a collection of supplies and equipment for use in giving first aid, and can be put together for the purpose by an individual or organization or purchased complete. There is a wide variation in the of first aid kits based on the knowledge and experience of those putting it together, the differing first aid requirements of the area where it may be used and variations in or regulation in a given area.



Commercially available first aid kits available via normal retail routes have traditionally been intended for of minor injuries only. Typical contents include bandages, regular strength pain, gauze and low grade disinfectant.

Specialized first aid kits are available for various regions, vehicles or activities, which may focus on specific risks or concerns related to the



activity. For example, first aid kits sold through marine stores for use in watercraft may contain..... remedies.

The use of personal protective equipment or PPE will vary by kit, depending on its use and risk of infection. The adjuncts to artificial respiration are covered above, but other common control PPE includes:

- Gloves which are single use and disposable to prevent cross infection
- Goggles or other eye protection
- Surgical mask or N95 mask to reduce

possibility of infection transmission (sometimes placed on patient instead of caregivers: for this purpose the mask should not have an valve)

- Apron

Instruments and equipment

TEXT B

weezers, iodine, debride, antiseptic, bacteria, swab, blanket, flushes, saline

- Trauma shears for cutting, clothing and general use
- Scissors are less useful but often included
- Tweezers
- Lighter for sanitizing or pliers.
- Alcohol pads for sanitizing equipment, or unbroken skin. This is sometimes used to wounds: however, some training authorities advise against this as it may kill cells which can then feed on
- Irrigation syringe - with catheter tip for cleaning wounds with sterile water, solution, or a weak solution. The stream of liquid out particles of dirt and debris.
- Torch (also known as a flashlight)
- Instant-acting chemical cold packs
- Alcohol rub (hand sanitizer) or hand wipes
- Thermometer
- Space (lightweight plastic foil blanket, also known as «emergency blanket»)
- Penlight
- Cotton

Personal Protective Equipment used on board ship

TEXT C

safety, protective, helmet, machinery, inhaled, ensure, trip, hazardous, human, goggles, resistant, shield, irritation, elevated



Safety of self and co-workers is the prime priority kept in mind by a professional seafarer while working onboard ship. All shipping companies ensure that their crew follow personal procedures and rules for all the operation carried onboard ships. To achieve utmost safety on board ship, the basic step is to make sure that everybody wears their personal protective equipments made for different types of jobs carried out on ship. Following are the basic personal equipment (PPE) that are always present onboard a ship to safety of the working crew:

1. **Protective Clothing:** protective clothing is a coverall which protects the body of the crew member from substance like hot oil, water, welding spark etc. It is popularly known as "dangri "or "boiler suit".

2. **Helmet:** the most important part of the human body is the head. It needs utmost protection which is provided by a hard plastic on the ship. A chin strap is also provided with the helmet which keeps the helmet on place when there is or fall.



3. **Safety Shoes:** maximum of the internal space of the ship is utilized by cargo and which is made of hard metal and which make it clumsy for crew to walk around. Safety shoes ensure that nothing happens to the crew members' feet while working or walking onboard.

4. **Safety Hand gloves:** different types of hand gloves are provided onboard ship. All these are used in operations wherein it becomes imperative to protect ones hands. Some of the gloves provided are heat



..... gloves to work on hot surface, cotton gloves for normal operation, welding gloves, chemical gloves etc.

5. **Goggles:** eyes are the most sensitive part of the body and in daily operations on ship chances are very high for having an eye injury. Protective glass or goggles are used for eye protection, whereas welding are used for welding operation which protects the eyes from high intensity spark.

6) **Ear Muff / plug:** engine room of the ship produces 110-120 decibel to head ache, and sometimes partial or full hearing loss. An ear muff or ear plug is used on board ship which dampens the noise to a bearable decibel value.

7) **Safety harness:** routine ship operation includes maintenance and painting of high and surfaces which require crew members to reach areas that are not easily accessible. To avoid a fall from such heightened area, safety harness is used. Safety harness is donned by the operator at one end and tied at a strong point on the other end.

8) **Face mask:** working on insulation surface, painting or carbon cleaning involves minor hazardous particles which are harmful for human body if directly. To avoid this, face masks are provided which acts as shield from hazardous particle.



9) **Chemical suit:** use of chemicals onboard ship is very frequent and some chemicals are very dangerous when they come in direct contact with human skin. A chemical suit is worn to avoid such situations.

10) **Welding shield:** welding is a very common operation on-board ship for structural repairs. A welder is provided with welding or mask which protects the eyes from coming in direct contact with ultraviolet rays of the spark of the weld.