

3 LIVING ON BOARD

3.1 General

3.1.1 The aim of the Code as a whole is to provide information and guidance aimed at improving the health and safety of those living and working on board ship. This chapter gives some more specific advice for the individual seafarer.

3.2 Fitness, health and hygiene

3.2.1 It is the seafarer's responsibility to look after their health and fitness. The work of a seafarer calls for a high standard of health and fitness, and so every seafarer is required to hold a valid certificate of medical fitness (on a UK ship, ENG1 or recognised equivalent) in order to join a ship. This confirms that, at the time of the medical examination:

MSN 1839(M) and MSN 1815(M)

- the seafarer's hearing and sight, and where relevant colour vision, met the appropriate standards for their role on board; and
- the seafarer had no conditions likely to be aggravated by service at sea or make the seafarer unfit for their duties or endanger other persons on board.

3.2.2 In the event of any change in their health that may affect their fitness for duty, the seafarer should seek advice, in order that the validity of their medical certificate can be reassessed by an approved doctor. Failure to do so may invalidate the seafarer's medical certificate, and may also place them or their colleagues at risk.

3.2.3 High standards of personal cleanliness and hygiene should be maintained. On board ship, infections can easily be spread from one person to others, so preventive measures, as well as simple, effective treatment, are essential.

3.2.4 Good health depends on sensible diet, adequate sleep and regular exercise. Guidance on healthy eating is available in the Maritime and Coastguard Agency leaflet 'Your health at sea 8: Fit for purpose', or from the National Health Service (NHS) website. Recreational drugs, substance or drug misuse, excesses of alcohol and tobacco should be avoided.

3.2.5 Treatment should be sought straight away for minor injuries; cuts and abrasions should be cleaned and first-aid treatment given as necessary to protect against infection. Barrier creams may help to protect exposed skin against dermatitis and also make thorough cleansing easier.

3.2.6 Rats and other rodents may be carriers of infection and should never be handled, dead or alive, with bare hands.

3.2.7 Personnel on board ship are trained and equipped to provide initial medical care for the range of health problems that may arise. If a seafarer develops a serious health problem or suffers a serious injury, medical advice should be obtained from tele-medical services. Where necessary, arrangements may be made to transport the sick or injured seafarer ashore for medical treatment. Further advice on medical care is contained in *The Ship Captain's Medical Guide*.

3.3 Smoking

3.3.1 Tobacco smoke damages the health of smokers and of those exposed to second-hand smoke. As well as the immediate harmful effects of smoking, it can increase susceptibility to harmful substances including asbestos. Many Companies, therefore, have a smoking policy as part of their promotion of health and safety on board. This policy, while taking into account the extent to which the ship is also the seafarers' home and place of recreation, will usually give priority to protecting non-smokers from the risk of harm from second-hand smoke.

3.3.2 A smoking policy is therefore likely to limit the places on the ship where smoking is permitted, and to include educating smokers of the health benefits of giving up smoking, and promoting schemes to help seafarers to quit. Guidance is also available on the NHS website.

3.3.3 In addition to the health risks, smoking may create a fire risk if matches and cigarettes are not carefully extinguished and disposed of safely. Ashtrays should always be used where provided. The use of safety ashtrays is to be preferred.

3.3.4 Matches and cigarette ends should not be thrown overboard since there is a danger that they may be blown back on board. It is particularly dangerous to smoke in bed.

3.3.5 E-Cigarettes

3.3.5.1 There is evidence of E-Cigarettes causing fires and faulty lithium ion batteries exploding, leading to injuries. As with all rechargeable electrical equipment, to manage fire risk the correct charger for the device should always be used. In addition, e-cigarettes should not be left charging unattended or overnight. E-cigarette products should be purchased from a reputable retailer to ensure they are compliant with UK safety regulations.

References

Public Health England;

<https://www.gov.uk/government/publications/e-cigarettes-and-heated-tobacco-products-evidence-review/evidence-review-of-e-cigarettes-and-heated-tobacco-products-2018-executive-summary#poisonings-fires-and-explosions>

NHS Smokefree website;

<https://www.nhs.uk/smokefree/help-and-advice/e-cigarettes#>

3.4 Medication

3.4.1 Anyone taking medication, particularly any medication that may affect alertness, should declare this to the approved doctor conducting their medical examination, and discuss any possible side effects. They should also notify a responsible officer on board, so that allowance may be made in allocating tasks.

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3.4.2 Drinking alcohol whilst under treatment with certain medications should be avoided, since even common remedies such as aspirin, seasickness tablets, anti-malarial tablets and codeine may be dangerous in conjunction with alcohol.

3.4.3 The individual has a responsibility to ensure that inoculations and vaccinations required for international voyages are kept up to date and that medications for the prevention of illness, such as suitable anti-malarial tablets, are taken when required.

3.5 Malaria

3.5.1 Preventative medication for malaria must be started in advance of arriving in an affected area. The length of time may vary according to treatment, but around one to three weeks is normal. Medication should continue for four weeks after leaving the area. The Company will need to take medical advice on the best medication for particular areas.

MGN 399(M)

3.5.2 While in infected areas, precautions should be taken to minimise the risk of insect bites.

Protection from insect bites

- Wear long- sleeved tops and trousers when going on deck or ashore.
- Use mosquito wire-screening and nets.
- Keep openings closed.
- Use anti-mosquito preparations or insecticides.

3.5.3 Anyone who falls ill after being in an infected area should inform a doctor immediately that they have been exposed to the risk of malarial infection.

3.5.4 More detailed guidance on prevention is in marine guidance note MGN 399(M) and on prevention and care in *The Ship Captain's Medical Guide*.

3.6 Avoiding the effects of fatigue (tiredness)

3.6.1 The International Maritime Organization (IMO) defines fatigue as:

'A reduction in physical and/or mental capability as the result of physical, mental or emotional exertion which may impair nearly all physical abilities including: strength; speed; reaction time; coordination; decision making; or balance.'

IMO, MSC/Circ.813

3.6.2 Fatigue amongst seafarers is recognised as a serious issue affecting maritime safety. There is clear evidence that fatigue is a contributory cause of accidents, injuries, death, long-term ill health, major damage to and loss of vessels, and enormous environmental harm.

3.6.3 The Company and the master should ensure that work is organised in such a way as to minimise fatigue, but seafarers also have a duty to take care of their own health and safety and that of their fellow workers.

Preventing fatigue

- Ensure you arrive on board well rested at the start of a period of work.
- Take scheduled rest periods.
- Use rest periods to gain adequate, uninterrupted sleep as far as possible (research suggests the body needs about 8 hours of sleep in each 24 hours in total).
- Eat regular, well-balanced meals, but eat lightly before sleep.
- Avoid alcohol and caffeine before sleep.
- Record hours of rest accurately, so that if there are workload pressures at particular times, this becomes apparent to management.

3.6.4 Further information about fatigue, making the most of sleep patterns and ways to maintain alertness are in MGN 505(M).

MGN 505(M)

3.7 Working in hot or sunny climates and hot environments

3.7.1 High humidity and high temperatures can lead to heat exhaustion and heat stroke. Perspiration is the body's best heat-control mechanism, but sweat consists mainly of salt and water which must be replaced. When working in these conditions, it is advisable to drink at least 4.5 litres (8 pints) of cool (but not iced) water daily. It is best to take small quantities at frequent intervals. Salt can be taken in food, supplemented by salt-containing drinks to prevent heat cramps. Alcohol should be avoided.

3.7.2 The length of time that seafarers are exposed to the hot conditions should be limited, and breaks (in the shade or in the fresh air) should be provided. Mechanical aids to support physically demanding work will help to reduce the impacts of hot environments or when seafarers are wearing a lot of clothing or equipment. See guidance from the Health and Safety Executive (HSE) on thermal comfort.

3.7.3 If working in an enclosed space, steps should be taken to ensure that the space is ventilated as well as possible. Light clothing should be worn, in order to allow the largest possible surface for free evaporation of sweat.

3.7.4 In tropical areas especially, exposure to the sun should be avoided as far as possible, particularly during the hottest part of the day. When it is necessary to work in exceptionally hot or humid conditions, appropriate clothing (including a hat) offering protection to both body and head should be worn. Light cotton clothing will reflect the heat and help to keep the body temperature down. Keep the upper body covered, especially around midday when the sun is at its hottest. Skin that has not been exposed to the sun for several months burns very easily.

3.7.5 Using sunscreen can add useful protection for the seafarer's body, which it is not easy to shade from UVA and UVB rays and sunlight. In European climatic regions, use a sun protection factor (SPF) rating of at least 15. In tropical regions or other areas of high risk, use a SPF of at least 30 (or higher for those with fair skin).

Don't get burnt

- Get to know your skin. This will help decide what precautions you need to take. Getting burnt now might increase the chances of developing skin cancer in later years.
- Try to avoid reddening – it is the first sign of skin damage as well as being an early sign of burning.
- A suntan **may** give some protection against burning but does not eliminate the long-term cancer risk; nor will it protect against premature ageing.
- The best protection is to shade the skin from direct sunlight.
- When on leave, continue to take care as the skin remembers every exposure.
- Use sunscreen generously and reapply regularly.

3.7.6 When working in exceptionally hot and/or humid conditions or when wearing respiratory equipment, breaks at intervals in the fresh air or in the shade may be necessary. Protective clothing and equipment should be removed during breaks, to allow the body to cool down, but it must be replaced before work restarts.

3.8 Working in cold climates and environments

3.8.1 Working in cold climates can impair the seafarer's ability to carry out simple tasks, as the cold temperatures can severely affect dexterity. At even colder temperatures, deeper muscles are affected, which results in reduced muscular strength and stiffened joints. (See the guidelines for working in cold weather on the York University, Canada website.)

3.8.2 Early signs that the body is under stress from the cold include:

- persistent shivering;
- poor coordination;
- blue lips and fingers;
- irrational or confused behaviour; and
- reduced mental alertness.

3.8.3 Appropriate clothing should be worn, including gloves, hat and warm socks. Care should be taken to ensure that this is compatible with any personal protective equipment needed for the work in hand.

Cold weather-related injuries/conditions

Frostbite/frostnip can damage the skin and tissue of the parts of the body that are left exposed to freezing temperatures. Extremities, specifically hands, feet, ears, nose and lips, are particularly vulnerable. Clothing that protects the extremities should be worn.

Hypothermia is caused when the body's core temperature falls below 35°C (95°F) and can become life threatening. It is usually caused by being in a cold environment such as being outdoors in cold conditions for a long period of time or falling into cold water.

(See the National Health Service (NHS) Choices website for information on frostbite and hypothermia.)

3.9 Working clothes

3.9.1 Clothing should be appropriate for the working conditions. Working clothes should be close-fitting with no loose flaps, pockets or ties, which could become caught up in moving

parts of machinery or on obstructions or projections. Where there is a risk of burning or scalding, as in galleys, clothing and shoes should adequately cover the body and material should be of low flammability, such as cotton.

3.9.2 Shirts or overalls provide better protection if they have long sleeves. Long sleeves should not be rolled up. Long hair should be tied back and covered. Industrial or safety footwear should be worn when appropriate.

3.10 Shipboard housekeeping

3.10.1 Good housekeeping is an essential element in promoting health and safety on board:

- Equipment and other items should be safely and securely stored. This ensures not only that defects are discovered but also that articles can be found when required.
- Fixtures and fittings should be properly maintained.
- All work and transit areas should be adequately lit.
- Electric circuits should not be overloaded, particularly in cabins.
- Garbage and waste materials should be cleared up and disposed of correctly and promptly.
- Doors and drawers should be properly secured.
- Emergency signage and fire and life-saving equipment should be kept clear at all times.
- Instruction plates, notices and operating indicators should be kept clean and legible, and should not be obstructed by other items.

3.10.2 Aerosols may have volatile and inflammable contents. They should never be used or placed near naked flames or other heat source even when empty. Empty canisters should be properly disposed of.

3.10.3 Some fumigating or insecticidal sprays contain ingredients which, though perhaps themselves harmless to human beings, may be decomposed when heated. Smoking may, therefore, be dangerous in sprayed atmospheres until the spray has dissipated and the area has been ventilated.

3.11 Substances hazardous to health

3.11.1 Many substances found on ships are capable of damaging the health of those exposed to them. They include not only recognised hazard substances, such as dangerous goods cargoes and asbestos, but also some maintenance and cleaning substances. For example, caustic soda and bleaching powders or liquids can burn or penetrate the skin. They may react dangerously with other substances and should never be mixed.

3.11.2 Where personnel are working in the presence of substances hazardous to health, appropriate safety measures should be followed to remove, control or minimise the risk of exposure. Packaged cargoes and stores should carry hazard-warning labels, where appropriate. Other hazardous substances should be identified through risk assessment and seafarers given information about the hazards and the measures in place to protect them.

3.11.3 It is important to read carefully all labels on chemical containers before opening them, to find out about any hazards from the contents. A chemical from an unlabelled container should never be used unless it can be clearly established what it is. Further advice is in Chapter 21, Hazardous substances and mixtures.

3.11.4 Older ships may have asbestos-containing products in panels, cladding or insulation. Any damage to such materials in the course of a voyage should be reported immediately to the departmental head. Until the damage can be repaired properly, the area should be sealed off where possible and the exposed edges or surfaces insulated or covered. This will prevent asbestos fibres from being released and dispersed in the air.

3.11.5 Prolonged exposure to mineral oils and detergents may cause skin problems. All traces of oil should be thoroughly washed from the skin. A skin cleaner that is designed for oil removal should be used. Chemical solvents should not be used as they may damage the skin. Inadvertent contact with toxic chemicals or other harmful substances should be reported immediately and the appropriate remedial action taken. Working clothes should be laundered frequently. Oil-soaked rags should not be put in pockets.

3.11.6 Coughs and lung damage can be caused by breathing irritant dust. The risk is usually much greater for a person who smokes than for a non-smoker.

3.11.7 Seafarers should ensure that they are aware of and understand the risks arising from their work, the precautions to be taken and the results of any monitoring of exposure.

3.11.8 Personnel should always comply with any control measures in place, and wear any protective clothing and equipment supplied.

3.11.9 In cases where failure of the control measures could result in serious risks to health, or where their adequacy or efficiency is in doubt, this should be reported so that health surveillance can be undertaken.

3.12 Common personal injuries

Chapter 8 includes advice on suitable personal protective equipment that will help to prevent the following injuries.

Hand injuries

3.12.1 Gloves are a sensible precaution when handling sharp or hot objects but they may easily get trapped on drum ends or on machinery. While loose-fitting gloves allow hands to slip out readily, they do not give a good grip on ladders. Wet or oily gloves may be slippery and great care should be taken when working in them. Wearing gloves for long periods may make skin hot and sweaty leading to damage. Wearing separate cotton gloves inside protective gloves will help to prevent this.

Foot injuries

3.12.2 Unsuitable footwear (such as sandals, plimsolls and flip-flops) gives little protection if there is a risk of burning or scalding, for example, and may lead to trips and falls. Care should be taken to keep feet away from moving machinery, bights of ropes and hawsers.

Eye injuries

3.12.3 Great care should be taken to protect the eyes. Appropriate protective goggles should be worn for any work involving sparks, chips of wood, paint or metal, and dangerous substances.

Head injuries

3.12.4 It is important to remember to duck when stepping over coamings, etc. to avoid hitting the head on the door frame, and head protection should be worn where appropriate.

Cuts

3.12.5 To avoid cuts, all sharp implements and objects should be handled with care. They should not be left lying around where someone may accidentally cut themselves. In the galley, sharp knives and choppers should not be mixed with other items for washing up but cleaned individually and stored in a safe place. Broken glass should be swept up carefully, not picked up by hand.

Burns and scalds

3.12.6 Burns and scalds are commonly caused by hot pipelines and stoves, as well as by fires. Every hot machine and every container of scalding liquid should be regarded as a hazard, capable of causing injury, and adequate precautions should be taken.

3.12.7 Faulty electrical equipment can cause severe burns as well as an electric shock. Equipment should be checked before use and if something appears wrong, it should be reported.

Misuse of tools

3.12.8 Injury can be caused by the misuse of tools. It is important always to use the correct tool for the job, and to make sure it is used in the right way. Tools should never be left lying around where they can fall on someone, or be tripped over. After a job is finished, they should be put away in a safe place.

Manual handling

3.12.9 It is easy to strain muscles when manual handling. Pulled muscles may be avoided if proper lifting techniques are used. Chapter 10 gives guidance on handling loads.

Mooring

3.12.10 Mooring and unmooring operations provide the circumstances for potentially serious accidents. Personnel should never stand in the bight of a rope or near a rope under tension, and they should treat ropes on drums and bollards with the utmost care.

Electrical hazards

3.12.11 Unauthorised persons should not interfere with electrical fittings. No personal electrical appliance should be connected to the ship's electrical supply without approval from a responsible officer.

3.12.12 Clothing or other articles should be left to dry only in designated areas, not in machinery spaces or over or close to heaters or light bulbs. This may restrict the flow of air and so lead to overheating and fire.

3.12.13 Hand-pressing irons should not be left standing on combustible materials. They should be switched off after use and stowed safely.

3.13 Sunglasses

3.13.1 The bright light from the sun reflecting off the surface of a calm sea or from ice caps in the Polar regions, or from the vessel itself, can dazzle the seafarer and cause damage to the eyes.

3.13.2 In these conditions, seafarers working on the bridge or on the open deck should wear sunglasses, which are an important piece of protective equipment, rather than tinted eye protection. For protection on the bridge, collective protection systems should always be considered; for example, sunblinds.

3.13.3 The following guidance should be considered when purchasing sunglasses.

- The lens tint should be neutral – ideally either grey or brown as these cause the least colour distortion.
- The lens tint should be no darker than 80% absorption.
- A graduated tint, with the darkest at the top of the lens, lightening towards the bottom, may be useful.

- Glasses should be CE marked and to the British Standard BS EN ISO 12312-1:2013+A1:2015. BS EN ISO 12311:2013 ensures that the sunglasses offer a safe level of ultraviolet protection.

BS EN ISO 12311:2013

BS EN ISO 12312-1:2013+A1:2015

3.13.4 Photochromic lenses react with UV radiation by darkening. Sunglasses with photochromic lenses **must not** be worn during the hours of darkness as they can significantly reduce night vision. Information is given in MGN 397(M+F).

MGN 397(M+F)

3.13.5 Polarised lenses reduce the amount of light passing through the lens by selective filtering of certain electromagnetic spectral planes. The use of this type of lens should also be discouraged. However, in some situations; for example, when navigating in shallow water, the wearing of these lenses may be beneficial as they can reduce the reflected glare from the surrounding water. Polarised lenses must not be used when viewing instrument panels as the visibility of some images may be unclear.

3.13.6 All frames should be well fitting and large enough to allow sufficient protection from oblique sunlight. All seafarers requiring a spectacle prescription must have a clear pair of correcting lenses but can have prescription sunglasses as their second pair. The wearing of non-prescription sunglasses on top of prescription glasses is not permitted. For navigational watches during the hours of darkness, the wearing of any type of sunglasses is not recommended.

3.14 Risk from sharps

Introduction

3.14.1 The term 'sharps' includes needles, syringes and razor blades.

3.14.2 Sharps may be used for the treatment of medical conditions, for recreational drug use or for wet shaving. Housekeeping staff may, therefore, come across these items in bed linen, on surfaces or in bins, and precautions should be taken to avoid injury and the risk of contamination with blood-borne viruses (BBVs). The main BBVs or concerns are:

- hepatitis B (HBV);
- hepatitis C (HCV); and

- human immunodeficiency virus (HIV).

There is a risk of bacterial or viral infection from used sharps.

3.14.3 As there is always a potential risk of coming across sharps unexpectedly, advice should be taken from a medical practitioner about whether seafarers exposed to this risk should have a tetanus or hepatitis B vaccination as a precaution. [For UK residents, these are provided free of charge on the NHS.]

3.14.4 The following precautions will reduce the risk:

- All housekeeping staff should be trained in safe systems of work, and what action to taken if they come across a sharp.
- Supervisors should be familiar with the safe systems of work and what to do in the event of injury.

Rubbish collection

3.14.5 Items should never be removed by hand from the bin.

3.14.6 Where bin liners are used, a check should be made that the weight is ok to lift, and then the liner should be removed fully from the bin and placed in a sturdy rubbish collection sack. To reduce the risk of being accidentally stabbed with a discarded needle or razor, hands should never be put inside a sack or a bin when emptying the contents.

3.14.7 Where no bin liner is in use, a check should be made that the weight of the bin is ok to lift, and then the contents should be emptied directly into a sturdy rubbish collection sack.

3.14.8 The collection sack should not be overfilled. If the contents need to be compressed, this should be done with a brush or other similar object, not with the hands.

3.14.9 Any rubbish sack should be carried as far from the body as possible, to prevent any unseen sharp objects causing injury. If it becomes apparent that there are sharp objects in the bag, the bag should be placed on the floor and appropriate assistance should be sought.

Cleaning/housekeeping

3.14.10 Care should be taken to avoid putting hands into blind/obstructed areas; for example, toilet U-bends or under sheets or pillows.

3.14.11 All needles/syringes found must be disposed of in a sharps container (or rigid-sided container), following the safe system of work (see section 3.14.4). If a sharp is found, it should always be assumed that it is infectious. The area should be closed off immediately to all personnel and a supervisor should be notified. The incident should be reported to a supervisor so that a record can be kept of the location, date and time as a hazardous occurrence.

BS EN ISO 23907:2012

3.14.12 Broken glass and crockery should be handled carefully and wrapped in several sheets of paper before being placed in the bin.

Removal of sharps: safe working procedure

3.14.13 Only trained staff should remove sharps.

3.14.14 When sharps are found, they should never be carried to a sharps container for disposal. The sharps container should be taken to where the sharp has been found, and placed near the sharp.

3.14.15 Sharps should never be picked up with bare hands or passed from hand to hand.

Either:

- appropriate protective clothing (stout rigger, rubber gloves or specialist anti-needle gloves) should be worn if removing the sharp with a small pair of tongs; or
- a long-handled litter-picking device should be used to pick up the sharp. No gloves are needed in this case as the distance between the sharp and the individual reduces the risk of contact.

3.14.16 Sharps should not be put in a normal waste bin. Always use a sharps container. The sharps container should not be filled beyond the level indicated on the side.

3.14.17 No attempt should be made to re-sheath or bend the needle.

If an injury occurs

3.14.18 If the skin is pierced by a needle or razor blade:

- The wound should be gently encouraged to bleed, but not scrubbed or sucked.
- The wound should be washed with soap and water.
- The incident should be reported immediately to a supervisor.
- Unless there is a doctor on board, radio medical advice should be sought.

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