

The impact of diet on performance and health

Background

Over the years Gard has seen that the medical status 'not fit for duty' and repatriations due to illness have increased in frequency. Working at sea involves long shifts of physically challenging work and frequent high levels of stress. To cope with their work situation and manage their day to day routine, seafarers must maintain both their mental and physical health.



A nutritious diet is considered to be one of many factors influencing an individual's mental and physical health; regular exercise, adequate rest and sleep, good hygiene, protection from workplace chemicals and noise, and a positive work climate in general are also important. However, many chronic diseases develop as a direct consequence of poor eating habits, particularly where obesity is involved. Although conditioned by background and geography, obesity is generally recognised as an increasing problem among seafarers. In 2010, the International Maritime Medical Association warned that "seafarer health must be made a priority to tackle the rising tide of obesity among seafarers", while the International Committee on Seafarers' Welfare feature "Overweight Prevention" as a separate topic in their Health Information Programme. The IMO's International Life-Saving Appliances (LSA) Code has also updated the requirements for life-saving appliances to reflect an increase in average body mass.

The purpose of this circular is to highlight the importance of a healthy selection of food onboard vessels, primarily as a means of reducing the potential for illness and chronic diseases developing amongst the crew, but also to keep the crew alert and thereby promote safety onboard.

Potential consequences of poor eating habits

Poor eating habits can lead to lack of sleep, digestive problems, depression and difficulty in staying awake and alert whilst on duty. These can also lead to obesity, diabetes 2 and heart problems in the longer term. If a seafarer becomes ill he may be unable to perform his duties, may have to be absent from the vessel, and there may be delays or diversions, costly medical claims, repatriation fees, possible litigation and settlement costs. To fall ill far away from home can also be a very difficult situation for the seafarer himself and his family.

The connection between fatigue and nutritional deficiency is well known and eating habits may therefore indirectly have an impact on the vessels' safety and work performance in general. Human error is often seen as the cause of accidents and may typically be related to poor judgment, misunderstandings, communication failures, and failure to follow prescribed standards – all of which may be linked to the crew's ability to concentrate and perform work tasks over any length of time.

We have also seen other consequences of poor physical condition and obesity. It is crucial that the crew onboard a vessel is able to act quickly in an emergency situation and it may become a safety issue if crew members struggle with emergency response and rescue operations such as searching smoke-filled areas, entering confined spaces or donning survival suits in an evacuation. Rescue of overweight people from the sea or using a stretcher onboard will require additional effort for those involved and can in an already critical situation further endanger the crew members.

Recommendations for meals onboard

Food habits vary a lot across the globe and the type of food served on board a vessel depends on the geographical location of the vessel, access to fresh ingredients and the nationalities, cultures and religious beliefs of the crew. It is therefore difficult to give a universal practical guide to healthy eating onboard all vessels but, in general, a healthy and nutritious diet must consist of a selection of food that, in combination, provides the body with the nutrients it needs: proteins, carbohydrates and fats as well as a selection of vitamins and minerals. A balanced diet for seafarers must also take into account the fact that some of the work performed onboard can be extremely physically demanding.

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A varied diet is important and as general advice, hot and cold meals onboard should primarily be based on the following basic ingredients:

Basic ingredients for healthy food options	
Breakfast cereals low in fat and sugar, but high in fibre	Wholemeal breads
Vegetable oil based products, e.g. for sandwich spreads	Brown rice and wholemeal pasta
Fish, shellfish, poultry and other low fat meat and cold cuts	Nuts and seeds
Low fat dairy products (milk, cheese, yoghurt, etc.)	Fruit, vegetables and berries
Low fat salad dressings and sauces	Fruit juices without added sugar
Cold and clean drinking water should be readily available onboard	

Foods full of sugars and fats but without important nutrients, e.g. sugary soft drinks, cakes, biscuits and similar items, should only constitute a small part of the food selection on board. Too high an intake of such foods will replace the intake of other healthy foods and/or be in addition to such foods which would lead to too high an energy intake.

An important part of a healthy diet is to encourage good meal time routines, i.e. the intake of food and energy should be evenly spread throughout the day. The advantages are many: improved concentration, fewer hunger pangs between meals, more energy and ability to work, stable blood sugar levels and, not least, a better mood.

Summary and advice

It is vital for the health and wellbeing of the crew and the safety of the vessel that individual crew members look after their bodies to reduce the potential for illness and chronic disease but also to stay alert and thereby promote onboard safety. The crew on board will depend on having a good variety of foods available to be able select a healthy diet and the following advice should be considered by Gard's Members and Clients:

- Shipowners should carefully plan and budget for supplies of fresh ingredients to ensure variation in the food offered onboard. A healthy menu is not necessarily more expensive than an unhealthy one.
- With respect to meals onboard:
 - good meal time routines are important to ensure an even intake of energy throughout the day;
 - healthy food options should be available at all meals and healthy drinks and snacks should be available between meals; and
 - safe drinking water should be readily available at all times, especially for crew performing work in hot environments such as the engine room.
- Seafarers engaged as ship's cooks must be trained, qualified and competent for the position and should also be involved in the meal planning process.
- Every crew member has a part to play in establishing a healthy food "culture" onboard and, as such, the crew must be given the necessary information and training in healthy nutrition.

In other words, the shipowner should take responsibility for providing information, creating healthy eating habits and ensuring that there is always good, healthy and safe food available to the people on board. Where the shipowner encourages and facilitates a healthy lifestyle, the people on board may better look after their own mental and physical health.

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