

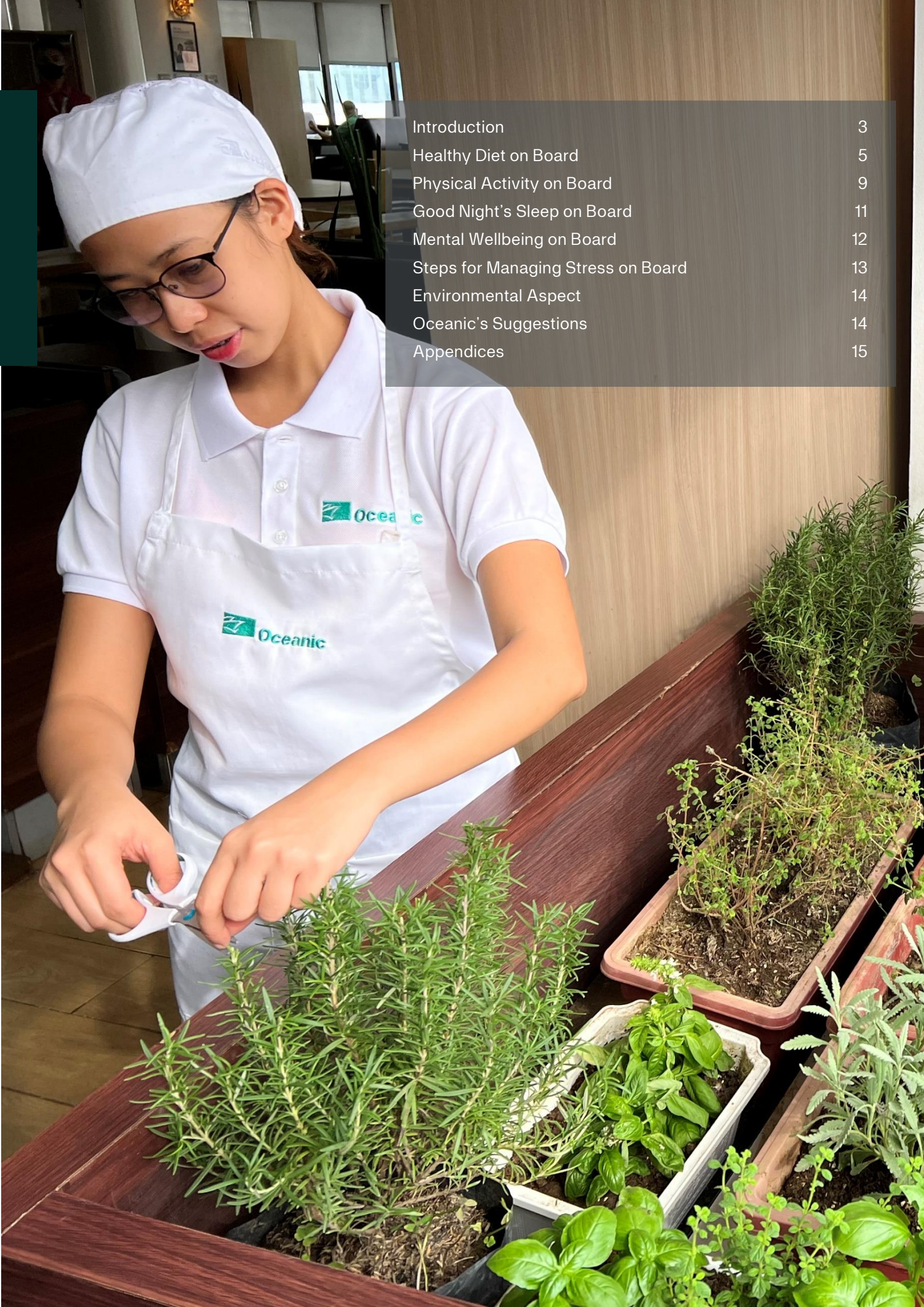


# STAY HEALTHY ONBOARD GUIDE

APRIL 2023

## How to Improve Health on Board





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# Introduction

## *Physical Health*

Physical health includes the body's wellbeing, and how well it is functioning. It includes healthy diet, regular physical activity, proper sleep, and cutting down smoking and alcohol.

The prolonged ocean voyages, night shifts, being away from family, work-related and other forms of stress, and working conditions, constrain the regular physical activity and sleep patterns of the seafarers. During stressful periods, it is difficult to maintain mindfulness and discipline, especially in terms of physical health.

## *Healthy Lifestyle on Board*

A healthy lifestyle includes nutritious diet, regular physical activity, and mental wellbeing.

### 1. **Eating Healthy**

Eating healthy means following a well-balanced diet within caloric needs, which emphasizes fruits, vegetables, whole grains, and fat-free or low-fat milk and dairy products. Additionally, a well-balanced diet includes a variety of protein food items such as seafood, lean meats, poultry, eggs, legumes, soy products, nuts, and seeds, and limited food items high in added sugars, salt, and unhealthy fats.

**Oceanic** ensures that all menus provided on board are well-balanced and nutritious, to enhance the seafarers' wellbeing. Educational material (guides, newsletters etc.) is being shared regularly, to increase healthy diet awareness.

### 2. **Regular Physical Activity**

Regular physical activity is vital for physical and mental health. Seafarers on board can do dynamic strength exercises such as squats or lunges, walk up and down the stairs, or use the gym equipment provided on board.

### 3. **Not getting sick**

Eating nutritious food prevents disease. Nutritious food is eating plenty of fruits and vegetables throughout the day which are packed with vitamins and minerals.

Fruits and vegetables are always available on board, with main meals or for snacks.

#### 4. **Healthy Mind**

A healthy mind includes emotional, psychological, and social wellbeing and affects thinking, feeling, and acting. By controlling stress and identifying emotions, helps remaining mentally calm. Being mentally calm is vital, especially for seafarers, as they are exposed to mental triggers every day.



## Healthy Diet on Board

A healthy diet on board is vital to ensure optimized energy levels, mental alertness, and overall good health. Making healthier food choices when possible, and consuming adequate amounts of carbohydrates, protein, healthy fats, fiber, vitamins, and minerals is the key to a well-balanced and nutritious diet. Access to healthy food options and variation are the cornerstones of healthy food on board.

### Tips to ensure a healthy, and well-balanced diet on board:

- **Do not skip meals!**

Eating something every 2–3 hours ensures adequate energy throughout the day, while blood sugar levels remain regulated.

- **Do not skip breakfast!**

Breakfast is the most important meal of the day, as it provides 20–25% of the total energy of the day.

- **5-a-day fruits & vegetables!**

Fruits and vegetables are full of vitamins, fiber, and antioxidants. Antioxidants help with fighting off substances that want to destroy brain cells.

- **Choose fibre rich foods!**

Foods that are high in fiber are whole grain products such as whole grain bread, fruits, vegetables, and legumes. Fiber helps with high sugar levels, reduces cholesterol and ease constipation.

- **Limit fat and sugar intake!**

Food or snacks that are high in saturated and/or trans-fat and sugar are best to be avoided, especially during work shifts. Increased consumption of such foods will result in health issues such as obesity, heart disease, high cholesterol, and diabetes.

- **Limit salt to less than 5g (1 teaspoon) per day!**

High salt intake is linked with high blood pressure (i.e., hypertension) and heart disease. High salt food items include canned food, instant sauces, cured meat, and bouillon cubes.

- **Ensure adequate hydration (6–8 glasses/day)!**

Hydration is crucial, especially for seafarers working in extremely hot environments. Seafarers should aim for 150–200ml fluids every 15 to 20 minutes.

- **Watch your caffeine intake!**

Drink no more than three cups of caffeinated drink per shift, as it may cause insomnia, anxiety, digestive issues, high blood pressure, rapid heart rate (i.e., tachycardia), and fatigue.

Find below, the caffeine content in drinks that may be available on board, according to the United States Department of Agriculture (USDA):

Drink	Caffeine content (mg)
Instant coffee (1 cup)	47
Tea (1 cup)	26
Coca cola (1 can)	29
Energy drinks (1 serving)	up to 80



## *Night Shifts and Diet*

It takes time for your circadian rhythms to be adjusted when working night shifts; circadian rhythms are part of the body's internal clock that regulates the sleep-wake cycle. When consuming meals during night shifts, the digestive track functions improperly, leading to several health issues such as gastrointestinal (GI) symptoms, obesity, cardiovascular disease, diabetes, and metabolic syndrome.

### **Eating tips for when working night shifts:**

- Limit food intake between midnight and 6:00am and prefer normal day and night times for eating, as much as possible.
- Prefer light meals such as vegetables, salad, vegetable soups, fruits, sandwiches (wholegrain if possible) with cheese, yogurt, eggs, nuts, and green tea.
- Avoid sugary food or food with low fiber content such as white rice, white bread, and white pasta, as they can make you feel sleepy.
- Avoid fatty or spicy foods as they will cause GI symptoms.
- Prefer lean protein such as chicken, low fat yogurt or milk, especially at the beginning of the shift as they provide slow and steady energy release.
- Prefer eating a light breakfast before day sleeping, to reduce hunger later, when sleeping.
- Be careful with caffeinated drinks.





## *Local Food Products*

Eating locally comes with several environmental, economic, social, and health benefits.

Local food products are fresh, and have a greater taste compared to non-local food products.

Local fruits and vegetables are more nutritious, since during transportation and processing, they tend to lose important nutrients. Vitamin C, which is abundant in fruits and vegetables, starts degrading instantly after harvesting. Additionally, antioxidants in fruits and vegetables are reduced during storage.

Preferring local food products is environmentally sustainable as it results in less pollution and carbon footprint due to less transportation distance, less waste and plastic packaging, and a healthier ecosystem.

Lastly, local food products tend to be cheaper, and contribute to empowering the local economy.





## Physical Activity on Board

Physical activity is vital for the health and wellbeing of seafarers. Regular physical activity lowers the risk of certain diseases such as heart disease, diabetes, stroke, hypertension, osteoporosis, and cancer. Further to that, regular physical activity can improve sleep quality, boost mood, help in maintaining a healthy weight and improve cognitive function.

However, seafarers often find it difficult to exercise as it is time-consuming. Additionally, they often feel exhausted from working shifts and demands, and they lack motivation. Hence, regular team exercise programs may be beneficial to encourage regular physical activity on board,

**WHO** recommends at least 150–300 minutes of moderate-intensity aerobic physical activity or at least 75–150 minutes of vigorous-intensity aerobic physical activity or equivalent combination of both moderate- and vigorous-intensity activity throughout the week. Additionally, muscle-strengthening activities are recommended twice or more per week. However, more than the recommended levels are encouraged to enhance health benefits.

### *Seafarers' Physical Activity Levels*

A study of 2020 conducted on both moored and sailing seafarers of Asia-Pacific Sea Routes, indicated that physical activity levels of sailing seafarers were 72.6% whilst for moored seafarers were 58.1%. (Youn I-H. & Lee J-M., 2020)

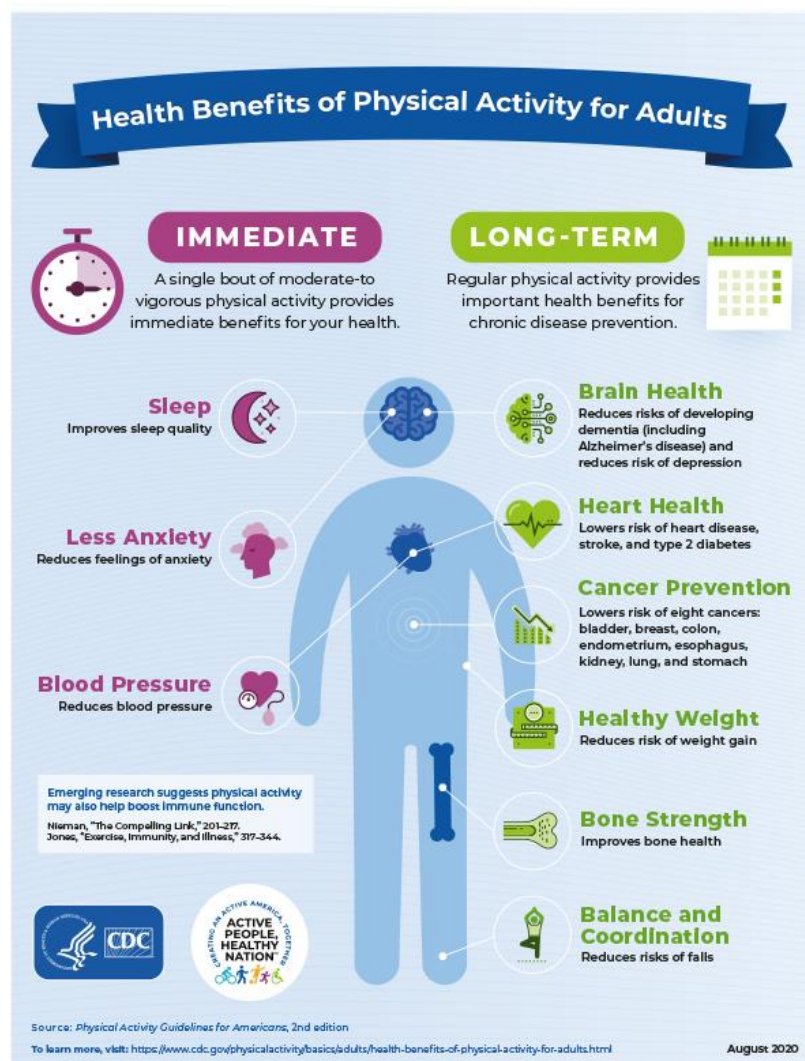
An earlier study conducted on board vessels of a Norwegian shipping company, indicated that 70% seafarers exercise at home twice a week, 39% exercise on board, 20% have never exercise on board and 5% have never exercised in their lives. (Geving IH. et al., 2007)

Studies investigating the physical activity levels of seafarers confirm that exercise is still reduced while on board. According to the **Maritime Labour Convention (MLC) 2006**, exercise equipment is recommended on vessels hence, regular physical activity on board should be encouraged.

## Tips to increase physical activity while on board:

- Try to use the gym equipment on your vessel, if available!
- Start small with doing exercise for 20–30 minutes once or twice per week and increase duration and intensity every week.
- Dynamic strength training exercises such as squats and lunges are encouraged if exercise equipment is not available.

Please, refer to **Appendix 1.**, for a 21-day workout program by the Sailor’s Society, which includes dynamic strength training exercises, which can be done while on board.





## The Importance of a Good Night Sleep on Board

A good night's sleep is as important as regular physical activity, and a healthy diet. Evidence suggests that poor sleep patterns are linked with negative effects on hormones, exercise performance, and brain function. Good sleep practices are vital for seafarers since they are exposed to physical and mental challenges every day.

A recent study conducted on Asian seafarers working on oil tankers, indicated that sleep quality was poor, resulting in absenteeism and occupational accidents, especially with those having insomnia or with long working hours and rotating work hours. (Baygi F. et al., 2022)

Another recent study conducted on seafarers in ocean going-vessels, indicated that both day workers and watch keepers had low sleep efficiency while watch keepers had shorter sleep periods compared to day workers. (Oldenburg M. & Jensen H.-J., 2019)

### *Fatigue Effects*

It is well known that lack of sleep results in fatigue. A demanding occupation like seafaring is often related to fatigue, as a result of sleeping problems, job demands, and work-family conflicts. The support from superior must be encouraged since it is linked with feeling less fatigue. (Dohrmann S.B., Herttua K. & Leppin A., 2019)

Seafarers' fatigue is a major cause of concern and thus it must be controlled to avoid minor and major injuries, fires, collisions, and groundings. Effective communication means and training on managing stress should be encouraged to improve the seafarers' sleep.



## Mental Wellbeing on Board

While mental wellbeing is not physical health, they both go hand in hand as they are inextricably related. Poor physical health can affect mental wellbeing in several ways. Physical activity is an example that keeps you physically healthy while improving mental health.

**WHO** reports that approximately 280 million people are suffering with depression while 1 in 8 people live with a mental disorder such as anxiety and depression, globally.

The seafarers' mental health has been of great interest in recent years, as seafaring has been identified as a high-stress occupation.

A recent review indicated that most seafarers suffer with stress, depressive symptoms and burn out. The Burnout Syndrome is the result of chronic work-related stress, which has not been managed successfully. (Jonglertmontree W. et al., 2022)

Another recent review indicated that seafarers with long working hours, irregular working shifts, poor sleep and being at sea for a long duration, have poor mental health. (Brooks S.K. & Greenberg N. et al., 2022)

**Oceanic** provides a holistic wellbeing approach as it perceives the seafarer as a whole person, considering their physical, emotional, and social wellbeing, and provides support on a regular basis.



## Managing Stress on Board

Steps that will help with managing stress on board:

- **Address stress effects!**

Learning and practicing relaxation techniques helps with identifying the effects of stress. These techniques will help coping with stress when being in uncontrolled and stressful situations. Please, refer to **Appendix 2.**, which indicates helpful steps for controlled breathing, provided by the Seafarers' Health Information Program.

- **Address stress causes!**

Several things can cause stress when on board; worries from home, relationship problems, tension between colleagues, bullying and harassment, heavy workload, and poor sleep. Make a list of the things or situations that worry you most and discuss them with someone you trust.

Oceanic provides the Seafarer Assistance Program which aims to help with issues such as family problems, stress, anxiety, depression, and more. Find more information by contacting [medical@seamed24.com](mailto:medical@seamed24.com).

- **Sleep, exercise, and a well-balanced diet are your allies!**

Try to rest as much as possible, eat healthily, and exercise regularly, as mentioned above. A healthy body means a healthy mind.

- **Talk about it!**

Build up your support network at home and at work. Talk when something worries you, and you will realize it is much better than suffering in silence.

- **Think positive!**

Try to keep in mind positive thoughts and do more of what makes you happy, even on board.

- **Learn to manage time!**

Organize your personal schedule to ensure adequate rest and quality time when offshore.



## Environmental Aspect

- Ultra-processed food and drinks (UPFD) such as cookies, instant sauces, candies, and soft drinks, should be limited when following a healthy diet.
- The production of UPFD results in gas emissions, water scarcity, decreased biodiversity, plastic waste, and deforestation. (Fardet A. & Rock E., 2020)
- Eating healthy is environmentally sustainable.



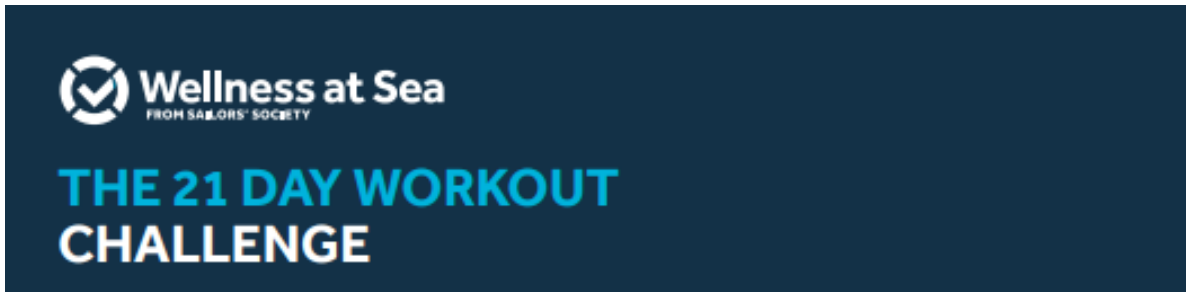
### Oceanic's Suggestions:

- ✓ Choose local and seasonal food when possible!
- ✓ Follow a healthy and well-balanced diet!
- ✓ Do regular exercise!
- ✓ Limit intake of UPFD!
- ✓ Meditate!



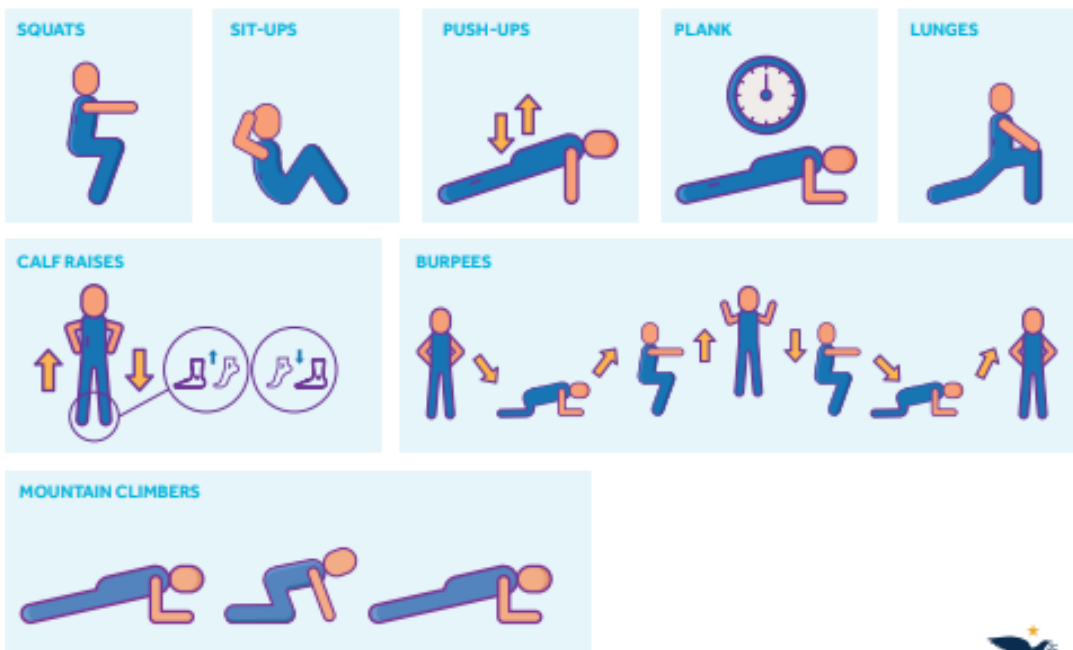
## APPENDICES

### Appendix 1.



#### WORKOUT SCHEDULE

DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6	DAY 7
10 squats 10 lunges 10 push-ups	10 calf raises 10 seconds plank 10 sit-ups	10 crunches 10 burpees 10 mountain climbers	10 squats 10 lunges 10 push-ups	10 calf raises 10 seconds plank 10 sit-ups	10 crunches 10 burpees 10 mountain climbers	stretch and rest
DAY 8	DAY 9	DAY 10	DAY 11	DAY 12	DAY 13	DAY 14
20 squats 20 lunges 15 push-ups	20 calf raises 20 seconds plank 20 sit-ups	20 crunches 10 burpees 20 mountain climbers	20 squats 20 lunges 15 push-ups	20 calf raises 20 seconds plank 20 sit-ups	20 crunches 10 burpees 20 mountain climbers	stretch and rest
DAY 15	DAY 16	DAY 17	DAY 18	DAY 19	DAY 20	DAY 21
30 squats 25 lunges 15 push-ups	30 calf raises 30 seconds plank 30 sit-ups	30 crunches 10 burpees 30 mountain climbers	30 squats 25 lunges 15 push-ups	30 calf raises 30 seconds plank 30 sit-ups	stretch and rest	50 squats 50 lunges 20 push ups



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## Appendix 2.

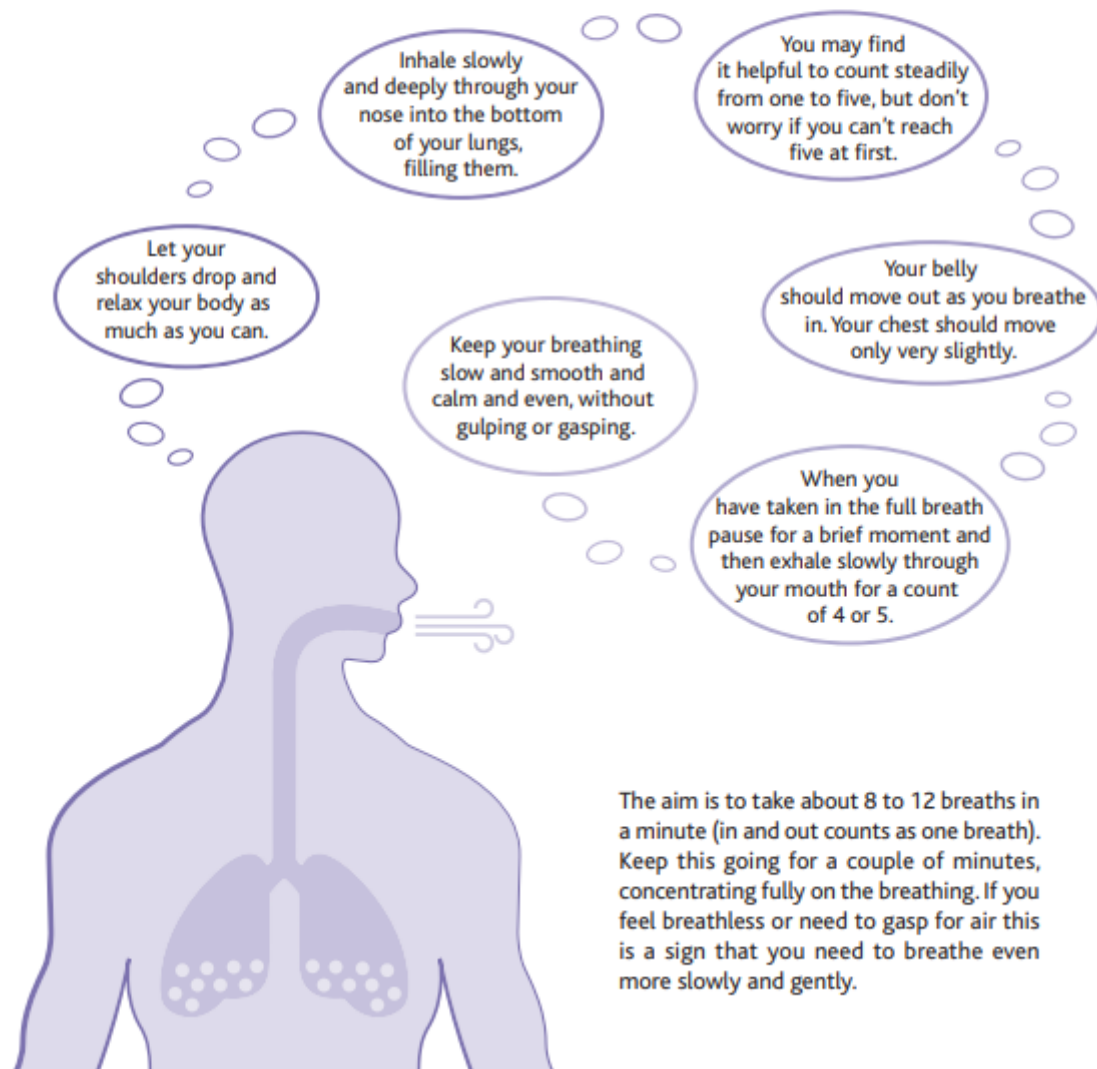
**Breathing Techniques** – Remember that all the physical effects of stress begin with the breath. Fast and shallow breathing gets the oxygen we need to our muscles to be able to fight or run away.

If we control our breathing (that is we breathe slowly and deeply from the bottom of our lungs) the heart slows down and the body returns to its resting state. You can use controlled breathing any time you notice your breathing is a little shallow or fast or whenever you notice sensations of stress, anxiety, fear or even anger. **Controlled breathing** can help you just take a moment out before reacting and is excellent to use quickly just before you enter into a difficult situation.

In the controlled breathing technique, we deliberately alter our breathing. In **mindful breathing**, we just notice our breath. More information about mindful breathing can be found in our guide **Steps to Positive Mental Health**. You can download the guide for free at:

 [www.seafarerhelp.org/assets/downloads/Steps-to-Positive-Mental-Health-English.pdf](http://www.seafarerhelp.org/assets/downloads/Steps-to-Positive-Mental-Health-English.pdf)

### CONTROLLED BREATHING:



The aim is to take about 8 to 12 breaths in a minute (in and out counts as one breath). Keep this going for a couple of minutes, concentrating fully on the breathing. If you feel breathless or need to gasp for air this is a sign that you need to breathe even more slowly and gently.





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