



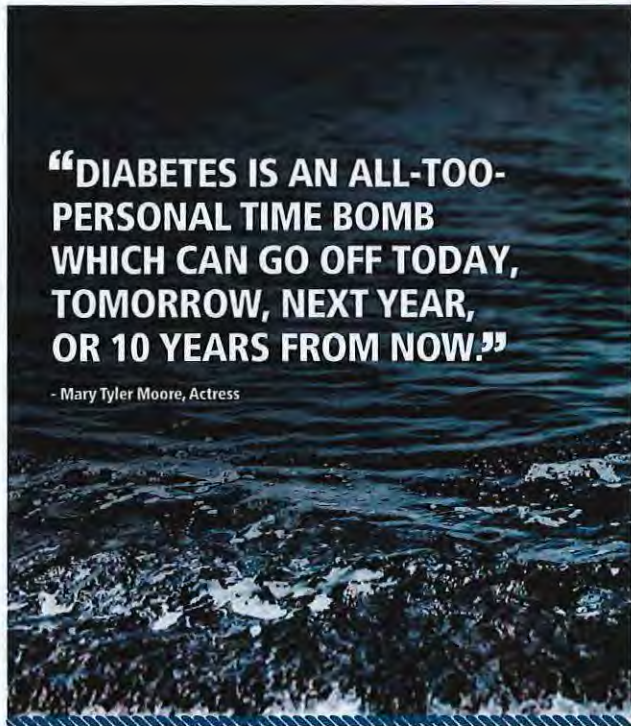
A SEAFARER'S

**GUIDE TO
UNDERSTANDING
DIABETES**



**“DIABETES IS AN ALL-TOO-
PERSONAL TIME BOMB
WHICH CAN GO OFF TODAY,
TOMORROW, NEXT YEAR,
OR 10 YEARS FROM NOW.”**

- Mary Tyler Moore, Actress



WHAT IS DIABETES?

Due to the lifestyle and working conditions on board vessels, seafarers have been shown to have a higher risk of developing type 2 diabetes. Diabetes is a disease in which your body cannot create or use a substance known as insulin. This leads to high blood sugar, which damages your body over time. Without the proper lifestyle adjustments, people with type 2 diabetes may require medication or even daily insulin injections for the rest of their lives. This guide outlines some of the lifestyle adjustments you can take to reduce your risk of developing the disease.



DIABETES IS A GLOBAL HEALTH ISSUE

No. of Diabetics Around the World



7 DID YOU KNOW THAT...

- It is estimated that 1 in 10 adults will have diabetes by 2035
- Diabetes kills a person every 6 seconds
- Diabetics spend an average of US\$2,800 on direct medical costs every year

Diabetes can harm your whole body



BRAIN

Diabetes can lead to strokes, which can cause permanent brain damage or even death.



HEART

People with diabetes are more likely to experience heart attacks, which is the most common cause of death among diabetics.



EYES

Diabetes increases the risk of eye diseases and can lead to blindness.



KIDNEYS

Diabetes can damage the kidneys and lead to kidney failure.



LIMBS

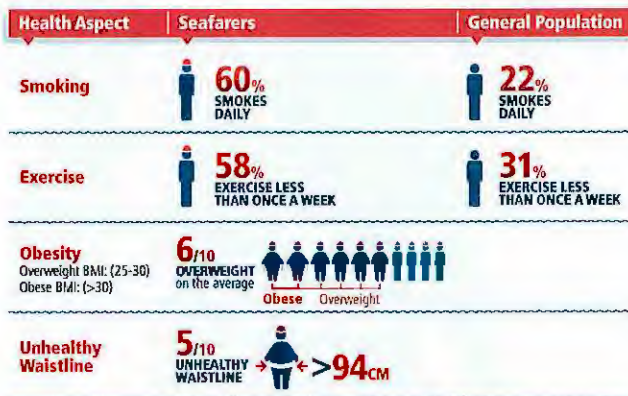
People with diabetes have a 25 times higher risk of amputation compared to the average person.



“DIABETES IS A LOUSY, LOUSY DISEASE.” - Elaine Stritch, Broadway Singer

WHY DO SEAFARERS HAVE A HIGHER RISK OF DIABETES?

As a group, seafarers have been shown to smoke more, exercise less and eat more than the average person.



WHAT ARE THE SIGNS & SYMPTOMS OF DIABETES?

CONSTANT FATIGUE
Your body becomes less able to use the blood sugar in your body for energy, so you will feel tired easily.

SLOW HEALING
Having infections, cuts and bruises that do not heal quickly is a common symptom of diabetes.

TINGLING / NUMBING SENSATION
Sensations of tingling, burning or numbness in the hands and feet, can be signs that your nerves are being damaged due to diabetes.

BLURRED VISION
High blood-sugar levels can result in you seeing floaters or occasional flashes of light.

EXCESSIVE THIRST & FREQUENT URINATION
When the your blood sugar levels is too high, you will tend to urinate more often, which leads to you drinking more than usual.

ARE YOU AT RISK?

Fill out the questionnaire on the right to find out your risk of developing diabetes.

Use the scoring table below to check your diabetes score.

For example, a diabetes score of 37 will mean that you are at moderate risk and have a 1 in 6 chance of developing type 2 diabetes within the next ten years.

What is your gender?	Female	0 pt
	Male	5 pt
How old are you?	<45 years	0 pt
	45-54 years	7 pt
	55-64 years	10 pt
	>64 years	13 pt
What is your body-mass index (BMI)? BMI=Weight(KG) / Height ² (M)	<25	0 pt
	25-30	3 pt
	>30	10 pt
What is your waist circumference? (Measured around the navel)	<94cm	0 pt
	94-102 cm	7 pt
	>102 cm	9 pt
Do you exercise at least 150 minutes a week?	Yes	0 pt
	No	3 pt
Are you a smoker?	No	0 pt
	Yes	4 pt
Do you eat fruits or vegetables daily?	Yes	0 pt
	No	2 pt
Have you ever been diagnosed with high blood pressure?	No	0 pt
	Yes	4 pt
Have you ever been diagnosed with high blood glucose?	No	0 pt
	Yes	12 pt
Does your family have a history of diabetes?	No	0 pt
	Yes: grandparent, aunt, uncle or cousin	5 pt
	Yes: parent, siblings, children	8 pt

DIABETES SCORE



SCORING SYSTEM

Score	Risk	Probability of developing type 2 diabetes within the next 10 years
< 19	Low	1 in 100
19-30	Slight	1 in 25
31-38	Moderate	1 in 6
39-54	High	1 in 3
>54	Very High	1 in 2



“GIVING UP SMOKING IS EASY. I KNOW IT BECAUSE I HAVE DONE IT A THOUSAND TIMES.”

- Mark Twain, Humourist

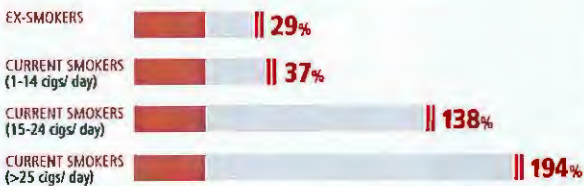
SMOKING – A GLOBAL HEALTH ISSUE

It is estimated that 22% of the world population are active smokers, and around 6 million people die annually from tobacco use and exposure to tobacco smoke.

SMOKING & TYPE 2 DIABETES

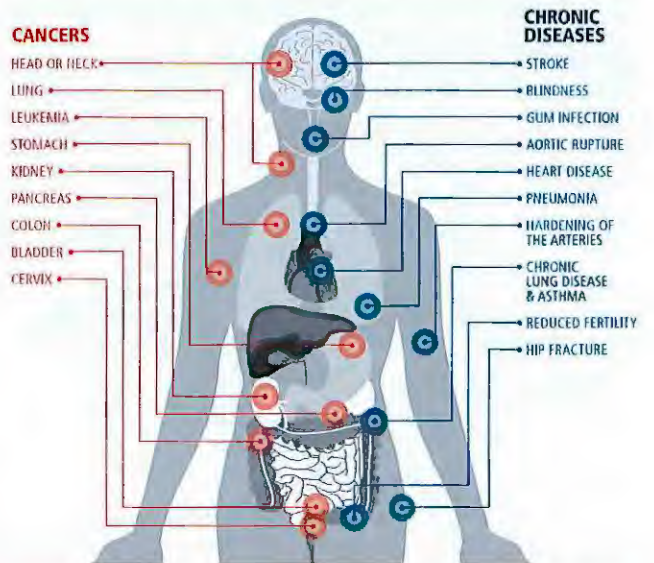
Studies have shown that smokers have a higher chance of developing type 2 diabetes compared to non-smokers.

Smoking History & Increase in Risk of Type 2 Diabetes



SMOKING IS EXTREMELY HARMFUL!

Smoking is one of the unhealthiest activities for anyone. It affects nearly every organ in the body and up to half of its current users will eventually die from a tobacco-related disease.



HEALTH BENEFITS OF QUITTING SMOKING

No matter how old you are or how long you have smoked, quitting smoking will allow you to live longer and be healthier.



“TO ENJOY THE GLOW OF GOOD HEALTH, YOU MUST EXERCISE.”

- Gene Tunney, Boxer

OBESITY & DIABETES

Worldwide obesity has doubled since 1980. It is estimated now that 1.9 billion people of the world population is either overweight or obese. Obesity has been shown to be one of the leading causes of type 2 diabetes.

Are You Overweight or Obese? Check your BMI using the table below

Height	Normal Range (BMI <25)	Overweight Range (BMI 25-30)	Obesity Range (BMI 30-35)
1.50m	<59kg	59 - 68kg	>68kg
1.55m	<62kg	62 - 72kg	>72kg
1.60m	<67kg	67 - 77kg	>77kg
1.65m	<71kg	71 - 82kg	>82kg
1.70m	<75kg	75 - 87kg	>87kg
1.75m	<80kg	80 - 92kg	>92kg
1.80m	<84kg	84 - 97kg	>97kg
1.85m	<89kg	89 - 103kg	>103kg
1.90m	<94kg	94 - 108kg	>108kg

If you are in the overweight or obese range, consider losing some weight. Studies have shown that an overweight person can reduce his risk of diabetes by 33% if he can lose 7% of his body weight.

OBESITY IS UNHEALTHY

People who are obese suffers from more health issues and have a higher chance of premature death from all causes compared to a healthy person.

TYPE 2 **DIABETES** **OBESITY** **STROKE**

SLEEP APNEA
BREATHING PROBLEMS
ASTHMA
HYPERTENSION

COLON CANCER
DEPRESSION
GALLBLADDER CANCER
PREMATURE DEATH
PSYCHOLOGICAL STRESS
INCREASED SURGICAL RISK

HIGH BLOOD CHOLESTOROL
KIDNEY CANCER
GALLBLADDER DISEASE
HEART DISEASE

REGULAR EXERCISE IS IMPORTANT

It is recommended that you exercise at least 3 times and expend at least 700 calories a week for a healthy lifestyle. There are many ways in which you can exercise while on board the vessel.

CARDIO-TRAINING

Improve your lung function and lose weight by jogging around the deck or on a treadmill. Alternatively, cardio training can also be performed using a stationary bike or an elliptical trainer.

STATIONARY BIKE



490
CALORIES PER HOUR
MODERATE EFFORT

ELLIPTICAL TRAINER



650
CALORIES PER HOUR
GENERAL TRAINING

TREADMILL



175
CALORIES PER HOUR
SLOW WALKING



270
CALORIES PER HOUR
BRISK WALKING



440
CALORIES PER HOUR
JOGGING



700
CALORIES PER HOUR
RUNNING

STRENGTH-TRAINING

Improve your strength and build muscle mass by either using free weights or weight machines.

FREE WEIGHTS / WEIGHT MACHINE



210
CALORIES PER HOUR
GENERAL TRAINING

ROWING MACHINE



490
CALORIES PER HOUR
MODERATE EFFORT

BODY-WEIGHT EXERCISES

You can also exercise without equipment by performing body weight exercises like push-ups, sit-ups, lunges, jumping jacks, squats, rope jumping, etc.

BODYWEIGHT EXERCISE



250
CALORIES PER HOUR
MODERATE EFFORT

ROPE JUMPING



700
CALORIES PER HOUR
MODERATE EFFORT

“THE DOCTOR OF THE FUTURE WILL GIVE NO MEDICINE, BUT WILL INVOLVE THE PATIENT IN THE PROPER USE OF FOOD, FRESH AIR AND EXERCISE.”

- Thomas Edison, Inventor

DIET & DIABETES

On average, people are consuming upwards of 2,900 calories a day, which is about 1.4 times more than the recommended daily calorie intake. A proper diet can greatly reduce your risk of diabetes.

HEALTHY DIET

While you may not have much say in the food provided on board the vessels, you can still pursue a healthier diet by reducing your total calorie intake and/or by increasing the percentage of healthy food types in your diet.



BENEFICIAL FOOD TYPES

WHOLE GRAINS

Contains dietary fiber, B vitamins, minerals and anti-oxidants, which help to lower blood pressure and cholesterol levels.



Wheat, Rye, Oat, Quinoa, Maize, Brown Rice

NUTS

A good source of omega-3 fatty acids, vitamin E and fibre when consumed in moderation.



Peanut, Cashew, Walnut, Pistachio, Almond, Pecan

LOW FAT DAIRY

Provides calcium which makes the bones stronger, and other minerals that help maintain a healthy blood pressure.



Skim Milk, 1% Low Fat Milk, Non-Fat Yogurt

GREEN LEAFY VEGETABLES

Contains high vitamins and mineral levels, and are known for their anti-inflammatory and anti-oxidant properties.



Kale, Broccoli, Spinach, Collards, Cabbage, Lettuce

OILY FISH

Contains vitamin A & D and is rich in omega-3 fatty acids, which reduces the risk of cardiovascular diseases, and maintain a healthy blood pressure level.



Herring, Mackerel, Salmon, Tuna, Sardine, Anchovy

HARMFUL FOOD TYPES

PROCESSED RED MEAT

Rich in cholesterol, saturated fats and additives that are closely linked to heart diseases.



Bacon, Ham, Hot Dogs, Salami, Sausage, Pepperoni

SUGAR SWEETENED BEVERAGES

Contains a significant amount of empty calories (sugar sweeteners) that leads to obesity and other harmful health effects.



Soft Drinks, Sodas, Sport Drinks, Energy Drinks

TRANS FAT

Closely associated with a higher risk of type 2 diabetes and coronary heart diseases.



Fried Food Products, Packaged Snacks, Hard Margarine

A STEP IN THE RIGHT DIRECTION

The life of seafaring forces you to be away from your family for months on end. Being healthier enables you to enjoy quality time with your family after your seafaring days are over without having to constantly worry about any lingering medical issues.

The lifestyle recommendations listed in this guide may be difficult for you to implement all at once. You need to remember that the pursuit of a healthier lifestyle is a marathon, not a sprint. Try to adjust your lifestyle a little at a time. If you put in effort consistently, you will definitely see the improvements to your health.

BROUGHT TO YOU BY



**Caring for seafarers
around the world**

The Mission to Seafarers is a Christian welfare charity founded in 1856. Its mission statement is to provide help and support to the 1.5 million seafarers of all ranks, nationalities and beliefs working in over 260 ports across the world. Through their global network of chaplains, staff and volunteers, MtS offers practical, emotional and spiritual support to seafarers through ship visits, drop-in centres and a range of welfare and emergency support services. No matter what problems seafarers are facing, they know they can always turn to the MtS for help, advice and support.