

# Calorie control

The old adage goes that 'you are what you eat'. It certainly is true as our food intake is responsible for our growth, maintenance, reproduction and health. So how do you make sure your crew eat the right quantity of the right things?



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Investing in training for the chief cook will surely pay dividends in reduced healthcare costs.

## What to eat?

Food is a mishmash of sugars (carbohydrates), fats (lipids), proteins, vitamins and minerals. Carbohydrates and lipids give us energy, the former providing ready fuel and the latter storage. Proteins do most of the work in our cells and are required for the structure, function and regulation of the body's tissues and organs. Vitamins and minerals are substances in food that are necessary for physiological processes in the body. According to the *Dietary Guidelines for Americans 2015–2020*, a healthy eating plan:

- emphasises fruits, vegetables, whole grains, and fat-free or low-fat milk and milk products
- includes lean meats, poultry, fish, beans, eggs and nuts
- is low in saturated fats, trans fats, cholesterol, salt (sodium) and added sugars
- stays within your daily calorie needs.

A balanced diet is a healthy diet.



To encourage a healthy lifestyle, captains can get creative with 'biggest loser' contests, crew daily exercise sessions, and the like.

## Ideal body weight

There are many ways to determine your ideal weight – from a simple percentile weight-for-height chart to the more complicated, using calipers to measure body fat in different areas of the body. The most common method is by Body Mass Index (BMI), which can be derived by the equation:  $BMI = \text{Weight in kilograms} / (\text{Height in metres})^2$ . Below is a table of BMI ranges from the World Health Organization and specific ranges for Asians – who make up the majority of seafarers.

	WHO (BMI)	Asia-Pacific (BMI)
Underweight	<18.5	<18.5
Normal	18.5–24.9	18.5–22.9
Overweight	25–29.9	23–24.9
Obese	≥30	≥25

### How much to eat to maintain ideal weight?

We can measure food intake by calorie consumption. Different foods have a different number of calories per gram of weight. On average, males need 2,400 to 2,600 calories per day, whereas females need 1,600 to 2,000 calories per day. These averages are affected by physical activity. For example, the captain on the bridge takes fewer steps per day than an able seaman, so will need fewer calories. Other factors that determine calorie expenditure are gender, age and metabolism. From a survey of marine officers, here are some examples of the level of activity required to perform different roles on board:

Rank	Sedentary or light activity (eg, an office worker)	Active or moderate activity (eg, a construction worker)	Vigorously active (eg, a farmer)
Master	○		
Chief officer		○	
Second officer		○	
Third officer		○	
Bosun			○
Able seaman			○
Ordinary seaman			○
Chief engineer	○		
Second engineer		○	
Third engineer			○
Fourth engineer			○
Oiler/fitter/machinist			○
Wiper			○
Activity correction factor	1.5	1.7	2.2

### How many calories should you consume to maintain your current weight?

- Men: (weight in pounds x 11) x activity correction factor
- Women: (weight in pounds x 10) x activity correction factor

### A healthy lifestyle

Consuming more or less than your body needs will lead to unhealthy consequences. Calorie intake should match your activity level to maintain weight or be rebalanced accordingly to help reduce or gain weight.

Climbing a flight of stairs will burn five calories while walking one kilometre will burn about 60 calories. A fried chicken drumstick is about 120 calories, so it is equal to running four laps around a VLCC tanker. A cup of white rice is 200 calories, so how many laps would your crew need to do to burn that?

Junk food will just add to the daily caloric intake without much added nutritional value, so should be avoided. Deep frying in oil will certainly add calories; thus, the chief cook is key in improving the health of all on the ship. Steamed food, grilled vegetables or Japanese sashimi are healthy alternatives.

### Conclusion

Maintaining a healthy body weight will reduce risk of heart disease, stroke, diabetes, some forms of cancer and joint pains. It will increase energy levels and optimise the immune system. Make your crews aware they need to watch what they eat, but, as with all medical advice, do everything in moderation.



A 2,000 calorie meal plan for one day from [www.eatingwell.com](http://www.eatingwell.com)

#### Breakfast (417 calories)

- Avocado-egg toast
- 1 slice whole-grain bread
- ½ medium avocado
- 1 large egg, cooked in ¼ tsp olive oil or coat pan with a thin layer of cooking spray (1-second spray) Season egg with a pinch of salt and pepper.
- 1 medium banana

#### Morning Snack (305 calories)

- 1 medium apple
- 2 tbsp peanut butter

#### Lunch (468 calories)

- 2 cups ravioli and vegetable soup
- 2 diagonal slices baguette (¼ inch thick), preferably whole-wheat
- 3 tbsp shredded cheddar cheese Top baguette slices with 1½ tbsp cheese each and a pinch of pepper. Toast until cheese is melted.
- 1 medium orange

#### Afternoon Snack (220 calories)

- 5 tbsp hummus
- 1 cup sliced cucumber
- 2 medium carrots

#### Dinner (584 calories)

- Salmon and vegetables
- 4 oz baked salmon
- 1 cup roasted Brussels sprouts
- 1 cup brown rice
- ⅛ tsp salt
- ⅛ tsp pepper
- 1½ tbsp walnuts
- Vinaigrette
- Combine 1½ tsp each olive oil, lemon juice and maple syrup; season with ⅛ tsp salt.