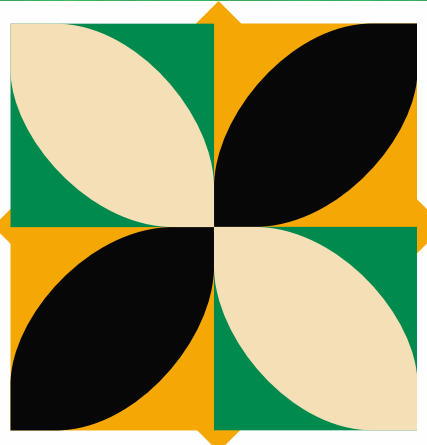
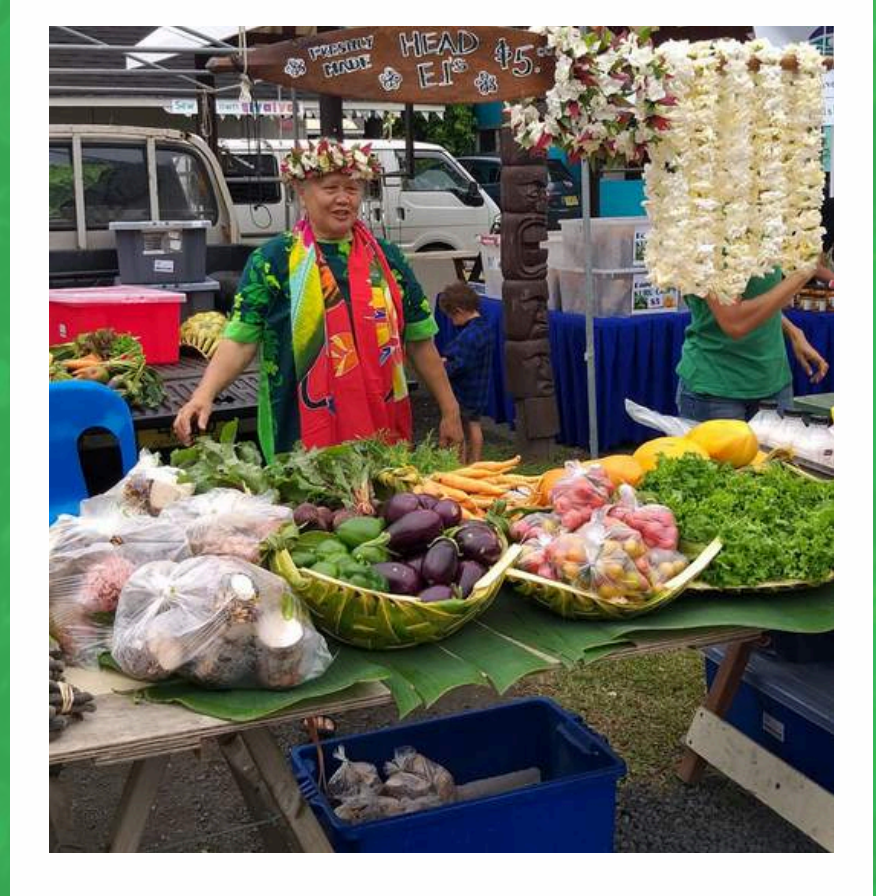


Cook Islands

Kai Ora

Guideline for healthy eating and living
(Mataara ki te kai ora no te oraanga Meitaki)





- The Cook Islands Ministry of Health gratefully acknowledges the invaluable support and nutrition-related guidance provided by the World Health Organization, the Food and Agriculture Organization, and The Pacific Community.
- The input from the Pacific Community’s Pacific Guidelines for Healthy Living and the Pacific Guidelines for Healthy Infants and Children Under Five has been invaluable in developing these guidelines.



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Definitions

Body Mass Index (BMI)	BMI is a measurement an individual's body fat based on their height and weight.
Diet	The kinds of food that a person, animal, or community habitually eats.
Nutrient	A substance that provides nourishment essential for the maintenance of life and for growth
Local Food	Is produced and distributed in a limited geographic area.
Traditional Food	Are foods and dishes that are passed through generations, or which have been consumed many generations. Usually based on what grows or lives in the land, air, and water of a location
Food System	A complex web of activities involving the production, processing, transport, and consumption of food.
Malnutrition	Describes both over and under-nutrition.
Micronutrient deficiencies	A disorder resulting from inadequate intake or absorption of nutrient from the diet. For example, inadequate iron intake causes iron deficiency and results in anaemia, weakness, and other complications.
NCDs	Non-communicable diseases (NCDs), also known as chronic diseases, tend to be of long duration and are the result of a combination of genetic, physiological, environmental, and behavioral factors. The main types of NCD are cardiovascular diseases (such as heart attacks and stroke), cancers, chronic respiratory diseases (such as chronic obstructive pulmonary disease and asthma) and diabetes.
Nutrition	The process of providing or obtaining the food necessary for health and growth.
Obesity	Having excess fat, defined as a BMI of 30 or higher.
Over Nutrition	Refers to excess intake of energy or other nutrients resulting in overweight or obesity.
Overweight	Excessive fat accumulation that may impair health and defined as BMI of 24 to 29.9.
Stunting	A syndrome that is identified by short stature for age among children under the age of 5 years.
Undernutrition	Undernutrition, includes wasting (low weight-for-height), stunting (low height-for-age), underweight (low weight-for-age) and micronutrient deficiency
Wasting	Low weight-for-height is known as wasting. It usually indicates recent and severe weight loss, because a person has not had enough food to eat and/or they have had an infectious disease, such as diarrhoea, which has caused them to lose weight.

Executive Summary

The Cook Islands Food and Beverage Dietary Guidelines 2024 represent a comprehensive framework designed to promote optimal health and well-being among our population. These guidelines are tailored to address the unique cultural, environmental, and nutritional needs of the Cook Islands, aiming to empower individuals and communities to make informed choices about their diet and lifestyle.

Key principles of the guidelines include prioritizing locally sourced, fresh foods that are rich in nutrients and supporting sustainable food practices. Emphasis is placed on traditional Cook Islands foods that are wholesome and nourishing, while also integrating global best practices in nutrition and health.

The guidelines advocate for a balanced diet that includes a variety of fruits, vegetables, whole grains, lean proteins, and healthy fats, while minimizing the consumption of processed foods, sugary beverages, and excessive salt. They underscore the importance of portion control and mindful eating habits to maintain a healthy weight and reduce the risk of chronic diseases such as diabetes, heart disease, and obesity.

Furthermore, the Cook Islands Food and Beverage Dietary Guidelines 2024 encourage regular physical activity as an integral part of a healthy lifestyle, promoting community engagement and supportive environments for active living.

The findings from maternal and child nutrition and oral health integrated workshops and screenings conducted as part of the Healthy Cook Islands 2030+ plus program, in the Southern group of Islands show that more children are being bottle-fed in comparison to being exclusively breastfed. Exclusive breastfeeding is not sustained and prolonged for the First 1,000 days. It has also been found, sugar sweetened drinks dairy based (milk), fruit juices and fizzy drinks are being introduced earlier and given in feeding bottle(s). These drinks are low in nutritional value and high in sugar content and do not help in the health and wellbeing of a growing child.

Te Marae Ora, Ministry of Health, Cook Islands is making dedicated efforts to encourage exclusive breastfeeding and healthy feeding practices for the First 1,000 days of life. Te Marae Ora also encourages pregnant and nursing mothers to have nutritious and balanced meals for better health outcomes during pregnancy, have healthy babies, and have good lactation for sustained and prolonged breastfeeding. Nutritional counselling bookings are also available as part of antenatal (Gynae) clinics at the Hospital. Pregnant mums are encouraged to attend the nutritional counselling sessions at TMO. The TMO encourages good mental health and well-being for mothers, no smoking and no alcohol consumption during pregnancy and breastfeeding. Programs to support mothers are made available through various initiatives such as mental health counselling and smoking cessation programs at various health clinics in Rarotonga and the Pa Enuā.

In conclusion, these guidelines are intended to serve as a roadmap for individuals, families, healthcare providers, educators, and policymakers to collaborate in advancing the health and nutrition of all Cook Islanders. By embracing these recommendations, we can foster a healthier population, preserve our cultural heritage, and ensure a sustainable future for generations to come.

Overview

A healthy diet across the life course is essential for growth, development, promoting and maintaining good health and prevention of malnutrition and disease. Many factors influence the food intake of an individual, a family, and the general population. These guidelines also discuss unhealthy lifestyle behaviours such as tobacco smoking and vaping, physical inactivity and harmful levels of alcohol consumption, which increase the risk of health problems.

The Cook Islands

Like other Pacific Island Countries (PICS), the Cook Islands is facing high levels of non-communicable diseases (NCDs), premature disability and death linked to unhealthy diets and lifestyle change. Food plays an important role in culture, customs, and traditions. Reliance on imported foods, loss of traditional practices, accessibility to land and sea resources, and other food system drivers affect the availability and affordability of safe and healthy foods. Further impacted by a sedentary lifestyle. Consequently, these affect good health and prevention of diseases such as non-communicable diseases.

Findings of STEPS Report 2022

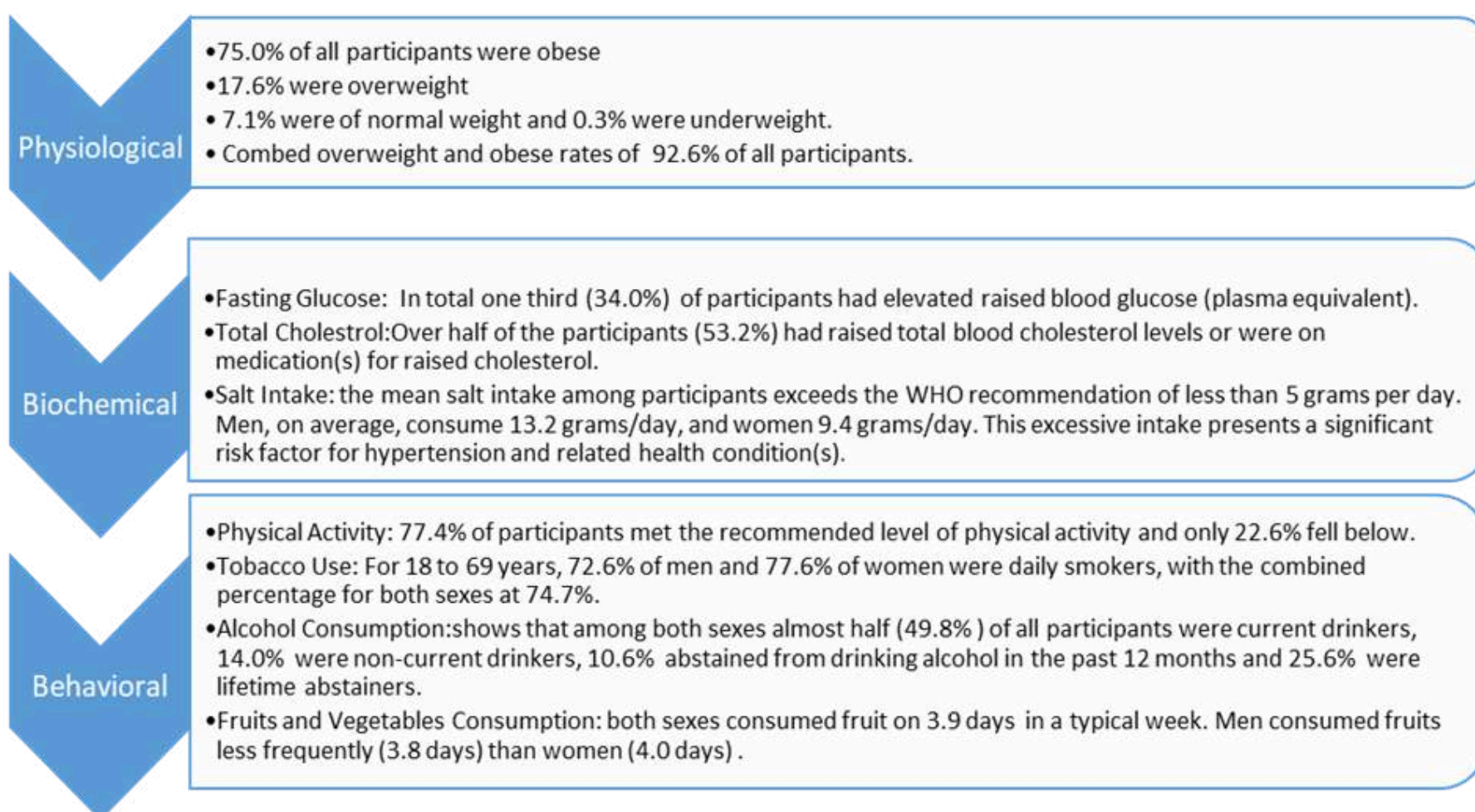
Te Marae Ora, Ministry of Health, Cook Islands carried out its 3rd STEPS Survey in 2022, with the report released on 2nd May 2024. Notable differences were recorded and reported in the 2022 STEPS Survey report in comparison to the previous 2015 report, in relation to the health and well-being of the Cook Islands population surveyed.

The survey population was predominantly Cook Islands Māori, accounting for 89.8%. The 71.8% of the total participants indicated an increase of NCDs in the Cook Islands by 99.4%. The STEPS survey investigated the key Behavioural, Physiological, and Biochemical risk factors for NCD among the 18-69-year age group.

Behavioural risk factors for NCDs continue to negatively impact both sexes at all adult ages, contributing to an increased risk of developing NCDs in the Cook Islands. As the number of risk factors increases, so does the risk of developing and dying from an NCD.

Almost all (99%) of the survey population had multiple risk factors; 61.8% with 3 to 5 risk factors and 37.2% with 1 to 2 risk factors. There is a statistically significant difference in 1-2 risk factors between the younger age group (45.4%) and the older age group (29.1%), reflected by a significant increase in 3-5 risk factors from the younger age group (52.7%) to the older age group (70.6%).

STEPS Survey, 2022: Synopsis



Purpose

The preliminary finding of the STEPS survey, 2022, served as the basis for the development of the Food and Beverage Dietary Guidelines (FBDG), Cook Islands. The guideline endeavors to address the challenges in dietary practices and habits of the Cook Island people which places them at risk of developing future NCD(s) or becoming obese.

The guidelines take into account the traditions and way of living of the Cook Island people. Further considerations were given to socioeconomic variables as well accessibility and security of food supply in the Cook Islands. Similar to other Pacific Island Countries (PICs) facing the effects of climate change, its geographic location and population distribution have a substantial impact on availability to healthy foods, whereby access is primarily dependent on inter-island transport. The purpose of the guidelines is to provide information and guidance on types and amounts of food and dietary practices as well as delivering a holistic approach to promoting healthy living by integrating diet, physical activity and other lifestyle factors.

Traditional influences in Cook Islands

Traditional foods, include those prepared with local foods, using local methods of cooking, has cultural/traditional value to the community and have been a part of the common foods/dishes consumed and passed through generations. This includes a variety of tropical fruits, coconuts, root vegetables and seafood. Like many PICs, increased access to imported foods, changes in land use, climate change, and busy lifestyles have impacted both food availability and food choices and consumption.

Unfortunately, some knowledge is fading and skills such as gardening with the moon phases (Arapo) are less commonly practiced. Fish is less available than in the past, and foods that used to grow wild are now much less common or have completely disappeared and are replaced by a wide variety of processed and imported unhealthy options which are easily accessible

Some traditions remain such as Kai kai (is the food not the event) umukai (food cooked in the earth) celebrations continue as frequent and valued ways to mark events and to maintain social connections. However, these events can sometimes be challenging, costly, and may contribute to unhealthy behaviours in terms of types and portions of food consumption. Often, followed by the intake of large meals and followed by resting or sleeping.

'Peu Tupuna'

'Peu Tupuna' is recognized as part of the Cook Islands games which is held biannually. Peu Tupuna contributed to the livelihood of our ancestors. These games had multiple purposes. Primarily, they were to develop skills, agility, concentration and strength for survival and subsistence activities. Peu Tupuna also brought people together. The activities include:

- Rore (stilts racing)
- Tiporo (lime juggling)
- Amo Manga (carrying coconuts)
- Ko Akari (coconut husking)
- Rangaranga (weaving).



Pukapuka and Nassau in the far North still practice a unique peu Maori (peu tupuna) called Popoko (Pukapuka wrestling).

Popoko is for all ages both young and old. The objective of the sport is to get your opponent to the ground. This is an opportunity for the male warriors in the village to showcase their strength and power.

'Peu Tupuna' is well alive in the Pa Enea (islands outside of Rarotonga) but is a practice that is slowly losing interest with the youth of today.

'Peu Tupuna' has always been a part of the Cook Islands games, Manea Games and Purapura games.

Akauka and CC Tamure

There has been an increased awareness and popularity locally to utilise traditional dance forms such as Akauka and CC Tamure as additions to physical training and existing conventional modes of fitness programs. This provides a unique opportunity of intertwining culture into daily physical routines, an initiative which Te Marae Ora, Ministry of Health supports within its Healthy Cook Islands 2030+ Initiative – promoting physical activity.



13 KEY MESSAGES FOR HEALTHY EATING AND LIVING

- 1.** Eat a variety of foods from the three food groups in the appropriate amounts each day, and choose fresh, local products
- 2.** Eat fruits and vegetables every day, at every meal. Aim for five or more servings per day.
- 3.** Choose, prepare, and eat foods with less salt, fat, and sugar.
- 4.** Eat foods that are less processed.
- 5.** Healthy eating starts early, from conception (pregnancy). For the first six months, give the baby only breastmilk. Start complementary feeding at six months and continue breastfeeding until at least two years of age.
- 6.** Drink plenty of safe and clean drinking water each day and avoid Sugar Sweetened Beverages (SSB).
- 7.** Slow down and enjoy food together with the family. Chew more. Listen to your body and stop eating when you are full.
- 8.** Eating traditionally, in the modern context.
 - Find a healthy mix of imported (air foods); traditional land and sea foods.
 - Update kaikai celebrations to include more balanced foods and smaller portions (honouring the gift of health).
 - Show the value of local and traditional foods to young people.
 - When traditional and local healthy foods are valued, they can be served with pride and given as gifts.
- 9.** Prepare, store, and keep food safe. Wash hands thoroughly with soap before and after preparing food.
- 10.** Be physically active! Adolescents need at least 60 minutes of moderate to vigorous activity for at least 3 days/week and adults need at least 30 minutes of moderate- intensity aerobic physical activity, for at least five days/week.
- 11.** Sit less. Reduce recreational screen time.
- 12.** Avoid all forms of tobacco and illicit drugs.
- 13.** If you choose to drink alcohol, do so in moderation. Avoid alcohol if you are under the age of 18 or if you are pregnant.

HEALTHY EATING GUIDELINES

Energy Foods

Energy foods should be 50% of all the foods you eat each day
Energy foods are high in complex carbohydrates like root crops and whole grains.

Choose Daily/frequent	Limit in moderation	Avoid occasional	Amounts	
<p>Kinaki Root crops Bread fruit (kuru), cooked green bananas, kumara, taro, tarua, maniota, yam, breadfruit, Whole grains, Whole meal breads, and wholegrain cereals, brown rice; poke (without added sugar)</p>	<p>Refined grains and cereals such as white rice, pasta, noodles, vermicelli, and bread, pancakes Foods prepared with fats and sugar, e.g. doughnuts, biscuits, and cakes, Cabin bread</p>	<p>Processed foods such as tinned corn beef, tinned fish high in salt, luncheon sausage, ice cream, frozen nuggets, French fries, and deep- fried foods, confectionary and sugary drinks</p>	<p>Eat six-eight portions each day Example of portion: 1 portion = fist</p>	<p>Carbohydrates Vitamins Dietary fibre</p>



1/2 medium Taro



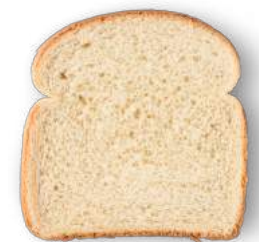
1/2 medium
Sweet Potato



1/2 medium Tapioca
or 2 slices



1/2 cup of rice



1 slice of Bread

A handy tip...



You can estimate serving sizes using your hand. A cupped hand is equivalent to 1/2 cup or 1 serving of an energy food.

cupped hand = 1/2 cup

Protective foods

Protective foods should be one third (35% of all the foods you eat each day). Protective foods are non-starchy vegetables and fruits which provide antioxidants, phytochemicals, carbohydrates, minerals, vitamins, and fibre. Remember to eat a variety of colours!

Choose Daily/frequent	Limit in moderation	Avoid occasional	Amounts	Main nutrients provided
<p>All fresh fruits and non-starchy vegetables, locally grown - All frozen vegetables and fruits with no added sugar or salt.</p> <p>Banana (Meika, Koka), pawpaw (Nita, Vi Puaka), mango (vi), Spondias (vi kavakava), watercress, star fruits (Raparapa), custard apple, (Naponapo) watermelon (mere ni), eggplant (Uarao, puakano), spinach (Pinapi, rukau viti, rukau taro), greens (Kai rourou), cabbage (kapati), tomato (tomati), lemon (remene), orange (anani) pi-beans, moringa, sea grapes (rimu)</p>	<p>Canned fruit in juice is a good alternative if fresh fruit is limited. - Dried fruits with no added sugar or preservatives - Canned vegetables containing little salt</p>	<p>Canned vegetables - Dried fruits with added sugar or preservatives - Cordials and fruit drinks - Fruit juice and fruit juice concentrate</p>	<p>Eat 5 or more serves per day.</p> <p>1 portion of raw vegetables is two cupped hands</p> <p>1 portion of fruit or cooked vegetables is one cupped hand</p>	<p>Vitamins</p> <p>Minerals</p> <p>Dietary Fibre</p> <p>Phytochemicals</p> <p>Antioxidants</p>



1 small bunch of Nappa



1/2 Cup chopped Pumpkin or squash



3 or 4 small Bananas



1 Corn



1 Eggplant



1 cup shredded cabbage

A handy tip...



You can estimate serving sizes using your hand. 1 cup of fruit or uncooked veggies is roughly the size of a balled-up fist.

fist = 1cup



A cupped hand is equivalent to 1/2 cup of 1 serving of cooked vegetables.

cupped hand = 1/2 cup

Body Building Foods

Body-building foods are protein-rich foods such as fish, meats, beans, legumes, and eggs, and should make up one sixth (15%) of all the food you eat each day.

Choose Daily/frequent	Limit in moderation	Avoid occasional	Amounts	Main nutrients provided
Local, lean cuts of meat, chicken - Fish - Eggs - Dried beans and legumes - Nuts - Reduced fat milk and milk products	Meat with visible fat - Canned meat or fish with high salt content	Processed meat - spam, canned corned meat - Corned beef/brisket in container, burgers, sausages, condensed milk, mutton flaps	Eat at least two portions each day Example of portions: Meat 1 portion = palm of your hand Nuts 1 portion = 1 cupped hand Beans/legumes 1 portion = 1 cupped hand	Proteins and essential amino acids Vitamins Minerals Fatty Acids Fibre (from dried beans and nuts)



1 medium Fish fillet



2 large Eggs



1 small Steak



1 small Chicken breast

A handy tip...



You can estimate serving sizes using your hand. The palm of your hand is equivalent to 1 serving of a body building food.

palm = 1 serving

Some examples of Portions on a plate.



Variety

For good health, eat a variety of foods from the three food groups each day. Foods provide a wide range of essential nutrients, vitamins, minerals, phytochemicals, and antioxidants that are beneficial to health. Variety ensures that people eat a nutritionally adequate and balanced diet each day. It can also help keep meals interesting. Eating too much food from one food group can lead to an imbalanced diet.

Amount

Eat enough food to meet energy and nutrient requirements for good health, to maintain a healthy weight, and to satisfy hunger. The total amount of food to eat each day to meet these requirements depends on factors such as age, life stage, health status and level of physical activity. Individuals differ in the amount of energy which they require, and this affects the total amount of food an individual needs.

Tips to avoid overeating:

Use smaller plates for smaller servings.

- Eat regularly and avoid missing meals so you don't get too hungry.
- Eat together as a family and put away phones, TVs, and other distractions so you can monitor what you eating and the portions.
- Practice putting the recommended portion sizes on your plate (using the "hand" method described above).

When to eat

The body needs a regular supply of energy to maintain health and growth. Establishing regular meal patterns is beneficial and is particularly important for those living with diabetes and for weight control.

Regular eating can help to avoid overeating, which can happen if meals are skipped. Note that a snack is not a full meal, but a small amount of food, usually eaten in between main meals. Snacks should still be nutritious foods and not junk foods. For example, fruit and nuts vs a doughnut. Snacking is not recommended for everyone, and doctors' advice is recommended. . It is more suitable for very active children and adults who have high energy needs, as well as those who can tolerate only small amounts of food and beverages at a time.

Eat fruits and vegetables every day, at every meal. Aim for five or more servings per day. Fruits and vegetables are important to protect health. A diet high in fruits and non-starchy vegetables can help to lower blood pressure, reduce risks of heart disease and stroke, and protect against some types of cancer. Eating a variety of colours supports the intake of different plant compounds that benefit health.

HEALTHY EATING FOR PREGNANCY (KAI MEITAKI – TUATAU NUI)

Many expecting mothers in the Cook Islands, are busy working and already raising young families.

A healthy diet and the right nutrients, during pregnancy protects the health of mothers and their babies. – Maternal nutrition during pregnancy is recognized as a key determinant and critical period to ensure healthy pregnancy outcomes and improve long-term health of the mother and her child. During pregnancy, the growing child is dependent on the mother's nutrition, so optimal maternal nutrition during pregnancy is critical as well as ensuring the build-up of essential nutrients for breastfeeding.

Tips for a healthy pregnancy¹

Get regular antenatal care and follow healthcare instructions.

Attend additional nutritional counselling services are available at the health facility.

Regular visits to the dentist are important for the care of your gums and teeth. As your body's hormone levels change, so does your risk for gum disease. Women with gum disease are more likely to give birth to pre-term, low-birth-weight babies. Your dentist can treat cavities in your teeth. When cavities are not treated, cavity-causing germs can be passed on to your child.

Daily oral iron and folic acid supplementation with 30 mg to 60 mg of elemental iron and 400 µg (0.4 mg) of folic acid is recommended. Avoid tobacco and alcohol consumptions.

Eat a healthy diet which has variety of protective/health, energy and body-building foods, especially local products.

Ensure the right quantities are consumed to meet the daily nutritional needs of both the pregnant woman and her growing child.

- achieve/maintain a healthy weight and weight gain during pregnancy
- take supplements as advised by the healthcare team
- adhere to food safety guidance
- manage any other pregnancy-related issues
- Ensure proper and timely diagnosis and management of medical conditions such as gestational diabetes and pregnancy-induced hypertension.
- Make plans for breastfeeding your baby.
- Stay active to maintain a good level of fitness.
- Most weight should be gained in the last half of pregnancy. According to the Institute of Medicine, women who are
 - underweight at the start of pregnancy women who are underweight at the start of pregnancy (i.e. BMI < 18.5 kg/m²) should aim to gain 12.5-18 kg,
 - women who are normal weight at the start of pregnancy (i.e. BMI 18.5-24.9 kg/m²) should aim to gain 11.5-16 kg,
 - women who are overweight (i.e. BMI 25-29.9 kg/m²) 7-11.5 kg, and
 - women who are obese (BMI >30) should aim to lose 5-9 kg overweight and obese need to lose weight to achieve recommended BMI

Dietary practices during pregnancy

Eat breakfast every day. Eat foods high in fibre, and drinks a lot of fluids (particularly water) to avoid constipation. Avoid alcohol, raw or under cooked fish, fish high in mercury, undercooked meat, chicken and soft cheese. And ensure that both mum and baby are well nourished with all vitamins and minerals, folate, iron, calcium, protein for healthy development of the baby and healthy mum.

- Choose nutrient dense foods, including iron rich foods.(spinach, legumes, pumpkin seeds, broccoli, tofu, dark chocolate, and beef organs)
- Do not add salt or sugar to infant foods. Naturally occurring sugars found in non-processed fruits are part of a healthy diet.
- Remember food safety.
 - Clean hands and utensils
 - Maintain proper temperatures—keep hot foods hot and cold foods cold.
- Prevent choking.
 - Make sure the texture of food is age appropriate. Avoid hard foods and bones.
 - Small round foods should be cut into small pieces.
 - Encourage baby to sit upright while eating.
 - Watch over baby while eating.

INFANT AND EARLY CHILDHOOD, AGES BIRTH TO TWO YEARS (0-2) (PEPE ANAU OU KI TE RUA MATAITI)

What, when and how children eat is more important before age two than any other time in life. The life course approach to health is crucial to achieving better outcomes later in life and setting the foundation right with optimum nutrition during 'The First 1000 days' of life (conception to 2 years of age) is critical.

Infant and toddler feeding habits have a significant impact on baby teeth coming out. The most common type of decay seen in children from 2-5 years of age is known as early childhood caries. It is directly related to feeding practices starting from infancy to toddler stages into preschool age. Exclusive, breastfeeding/formula-based feeding is protective against early childhood caries or decay. A healthy complementary diet further protects your child's teeth from getting decayed. By giving your child healthy food and drinks and brushing teeth will help your child to keep all their 20 baby teeth by 5 years of age. Having healthy teeth helps in chewing a large variety of foods for growth and development of your child.

Breastfeeding

Breast Milk is the ideal food for infants. It is safe, clean and contains antibodies which help protect against many common childhood illnesses. Breast milk provides all the energy and nutrients that the infant needs for the first six months of life, and it continues to provide up to half or more of a child's nutritional needs during the second half of the first year, and up to about 16 months of life. At this time, nutritional needs are complemented with timely and nutritious complementary feeds.

There are so many benefits to breastfeeding for babies!

1. Provides all the nutrition a baby needs and helps to protect against illness for the first 6 months of life
2. Babies don't overeat on breastfeeding.
3. Gaining weight appropriate to age and less likely to become overweight in childhood and adolescence.
4. Improves intelligence. No study case within the Pacific Islands but PMC Journal- Breastfeeding was positively associated with IQ performance in children and adolescents. On an average, more breastfed participants had high IQ scores than non-breastfed participants (19).
5. Have lower rates of dental caries in childhood.
6. Are less prone to diabetes and other NCDs later in life.
7. Experience better overall health.

There are so many benefits to breastfeeding for mums:

1. Improves and strengthens Mother-child bonding.
2. Saves a lot of money!
3. Reduces risk of ovarian and breast cancer.
4. Faster post-partum recovery and necessary weight loss.



Complementary feeding

For the first six months, babies need only breastmilk. Around six months, you can start introducing complementary foods while continuing to breastfeed on demand.

As your baby grows, gradually increase the texture of their food, starting with purees, then moving to soft mashes, and eventually to finger foods. For more detailed guidance, refer to the Tamariki Ora (Child Wellbeing) book. Additionally, breastfeeding should be accompanied by information on the appropriate use of breastmilk substitutes.

Age	Stage	Frequency	Amounts	Food & texture
Around six months	<p>Increased suck strength</p> <p>Can move head side to side</p> <p>Getting teeth</p>	2 X per day	2-4 tbs	<p>Iron rich foods—baby cereals, Vitamin A rich foods such pureed fruits and vegetables—carrots, pumpkins</p> <p>And dark leafy greens</p> <p>Served as a thin, strained puree.</p>
7-8 months	<p>Can chew soft lumps</p> <p>Can close lips to clear spoon</p> <p>Begins to drink from closed cup</p>	2-3 X per day	4-8 tbs.	<p>Mashed consistency.</p> <p>Foods high in iron, Vitamin A, and omega 3s</p> <p>Infant cereal, lamb, beef, fruits, vegetables</p>
9-11 months	<p>Can bite harder</p> <p>Begins to drink from open cup</p>	3-4 meals + 1-2 snacks in addition to breastfeeding	4-8 tbs.	<p>Finely chopped finger foods;</p> <p>Variety of healthy foods—see healthy eating guidelines p.</p>
12-24 months	<p>Can manage most textures but still developing chewing skills</p> <p>Can participate more fully in family meals and foods offered</p>	3-5 meals with regular breastfeeding and depending on child's appetite 2-3 snacks	6-8 tbs.	<p>Variety of foods from the three food groups in the proportions shown in the healthy plate.</p> <p>Until the age of 2, milk and dairy products should be full fat (not reduced fat).</p>

THE FIRST SIX MONTHS (ONO MARAMA – KAI U MAMA)

In the Cook Islands, most babies are breastfed immediately after birth. However, many mothers return to work early and are not able to continue exclusive breastfeeding and breastmilk is replaced by breast milk substitutes within only a few weeks after birth. Many of the workplaces in the Cook Islands are breastfeeding-friendly. Sometimes other family members place pressure on the mothers to stop breastfeeding. Many people believe that babies that are big are beautiful and healthy, while skinny babies are makimaki, or unwell.

Evidence-based recommendations show that babies get the best start in life when they:

- Are breastfed right after birth, within an hour.
- take only breastmilk for the first six months of life
- babies are breastfed on demand—when baby is hungry
- Begin safe and healthy complementary food beginning at six months and continue breastfeeding until at least two years.
- Salt and sugars should not be added to complementary foods.



**EXCLUSIVE BREASTFEEDING FOR
THE FIRST *6 MONTHS*.**

6 TO 18 MONTHS (ONO MARAMA KI TE TAINGAURU MA VARU MARAMA)

Babies and toddlers in the Cook Islands are often introduced to processed and unhealthy foods early in life. Food is often given as a reward or to show love and care. Children are developing eating habits early. At the age of 6 months, the breastmilk or infant formula alone cannot provide for all the nutritional needs of the baby so additional food is required. Optimal nutrition during this time is crucial for normal growth and development.

Breast milk or formula-based milk products should always be offered first and followed by complementary foods from a variety of foods to provide nutrients such as iron, essential fatty acids as well as fat soluble vitamins. Restricting of fat is not advisable but care is needed with the source of dietary fat.

Babies are ready to begin solid, complementary foods when they can:

- Sit up without help.
- Hold up their head.
- Open mouth when food is offered; and
- Chew and swallow food.

During this time,

- Continue frequent, on-demand breastfeeding until 2 years of age or beyond.
- Practice responsive feeding—feed the infant directly (do not prop the bottle, for example) or encourage the child gently, talk to the infant or child and maintain eye contact.
- Parents and caregivers should prepare and feed meals with clean hands and dishes, starting at 6 months with small amounts of food and increasing gradually as the child gets older.
- Gradually increase food consistency and variety (see below).
- Increase the number of times that the child is fed: 2–3 meals per day for infants 6–8 months of age and 3–4 meals per day for infants 9–23 months of age, with 1–2 additional snacks as required.
- Use fortified complementary foods or vitamin-mineral supplements as needed; and
- During illness, increase fluid intake including more breastfeeding, and offer soft, favourite foods.

PRE-SCHOOLERS: AGES 3-5 (TORU KI TE RIMA MATAITI)

Many children this age is cared for by extended families or in early childhood centres while their parents are working. Love and care by family and friends is at times demonstrated by snacks and drinks which the child demands. (Sometimes showing love and care is demonstrated through providing any types of food a child wants or asks for). Most of the time, they are the readily available unhealthy foods, snacks, and beverages high in sugar content. Healthy eating is important for health, growth, and development for young children and adolescents. Early establishment of healthy eating habits and choices is significant to ensure the children learn to practice on a daily basis and continue on later in life. Children who are overweight or obese are more likely to continue to be overweight or obese as they grow older, thus increasing their risk for NCDs and poor health including poor oral health.

Consistent exposure of children to marketing of unhealthy foods and drinks, using different media platforms, increases the chance of purchase and consumption of these food items. Strategies need to be in place and implemented to control these marketing initiatives at all settings where children have access to. These can include school food policies, regulations to restrict marketing of unhealthy foods and drinks to children which will support parents and caregivers providing appropriate food and encourage healthy eating for children in ways including:

- Offer a variety of healthy, nutrient-dense foods from each of the food groups (see page 12).
- Include fruits and vegetables in every meal.
- Let children participate in shopping, gardening, fishing, and/or meal preparation (appropriate to their age). Let children decide, appropriately. For example, do you want pineapple or banana? vs. do you want a banana or ice cream?
- Talk to children about healthy eating and about the importance of taking care of your body.
- If children have food allergies or intolerances, choose other foods within the same food group to provide nutrients.
- Limit the amount of unhealthy foods that are available and keep them out of sight. When children fill up on these foods, they will not get enough important nutrients from healthy foods. Additionally, excess sugar can lead to dental caries.
- Foods to limit include
 - Packaged and processed foods
 - Sugar drinks
 - Doughnuts, biscuits, cakes, Lollie's
 - Crisps
 - Fast food
 - Fried foods
 - Processed meats and sausages
- Celebrate and enjoy traditional, local Cook Islands foods.
- Have pleasant family meals together.
- Be a role model for healthy eating.

SCHOOL-AGED CHILDREN AND ADOLESCENTS AGES 5-17 (RIMA KI TE TAI NGAURU MA ITU MATAITI)



In the Cook Islands, children may be provided lunch at school, or they may take lunch from home. However, very often lunch is purchased at local shops. Influenced by both traditional and external pressures including food marketing, current preferences are for imported foods which have greater perceived value than traditional and local foods.

Children and adolescents are growing, developing, learning, and physically active. They need adequate energy and nutrients to help them do this successfully. This age is a second window of opportunity for growth, development and establishing lifelong healthy eating habits.

Children and adolescents are most at risk for dental caries. Dental caries can cause discomfort, pain, and loss of teeth. There is a clear dose-response relationship between sugar intake and dental caries. Reducing sugar intake can improve oral health.

Some common areas of concern for this age group include:

- Skipping breakfast.
- Inadequate fruits and vegetables.
- High intake of highly processed foods, sugary drinks, and other foods, and drinks high in sugar, salt, and/or fat.
- Use of energy drinks which are high in sugar and caffeine and have shown links to health and behaviour problems.
- Highly influenced by marketing including digital marketing.
- Have unrestricted access to shops, fast foods and /or take-away foods on their way to or from school or at lunch break at school.
- Excess sugars that affect oral health and increase risk for dental caries.
- High use of electronics (cell phones, computers, video games) which leads to inactivity.
- Overweight and obesity.

Parents and caregivers can

- Provide a variety of healthy foods from the three food groups.
- Start the day with a healthy breakfast.
- Pack or provide healthy lunches for school.
- Limit access or set limits on unhealthy foods.
- Increase participation in meal planning and preparation.
- Talk to children about food and health, including portion control.
- Eat family meals together. Be a good example.
- Encourage water consumption.
- Teach children about traditional foods and provide the skills to grow, catch, and prepare these foods.

ADULTS (ARONGA MAMAATA)

In the Cook Islands, adults are busy with work, sport and raising families. A wide variety of imported foods, both healthy and processed are available. Take-away packs are also widely relied on when time is short. Eating is social and often rushed, meals are often late in the day, and less often eaten together as a family. For some, traditional knowledge and skills of local foods are lost. The traditional Kaikai is still a common, frequent experience to celebrate a variety of life events.

In the Cook Islands, many adults are overweight or obese, don't eat enough fruits and vegetables and consume too much salt. Many adults are also living with one or more noncommunicable diseases (NCDs).

Adults' food choices are influenced by a variety of factors including costs, convenience, availability, food preferences and more. The influence of these food choices impacts the rest of the family.

Maintaining healthy eating and a healthy weight can reduce the risk of NCDs and help with the management of existing NCDs.

Tips for healthy eating:

- Follow the food guidelines. Mix and match available foods to create a healthy plate. Add vegetables and fruit to take-away serves.
- Get regular health screenings as advised by healthcare providers. Living with NCDs, may require specific changes to food choices such as further reducing specific nutrients.
- Regular visits to the dentist are important to have enough natural teeth and have a good oral health quality of life. Not having enough teeth affects the variety of food intake. False teeth at times cover tastebuds and not allow flavours to be enjoyed and are not as strong as your natural teeth.
- Eat together as a family, when possible.
- Drink plenty of safe and clean drinking water each day and avoid Sugar Sweetened Beverages (SSB).
- Pay attention to serving sizes and portion control.
- Reconnect with traditional foods and identify opportunities to refresh traditions like Kaikai with a focus on healthier foods or greater balance.

CONSIDERATIONS FOR OLDER ADULTS (65+) (ARONGA PAKARI)

Cook Islanders are living longer. In this stage of life, energy needs may decrease while nutrient needs do not. This makes it more important to focus on nutrient-dense foods.

Older adults sometimes experience reduced appetite or may have lost teeth, also creating challenges getting adequate nutrients.

Some older adults have been living with NCDs for some time.

Tips for healthy eating

- Eat nutrient dense foods and build a healthy plate from available foods.
- If appetite is low, have smaller more frequent meals.
- Talk to your doctor about need for supplements.
- Ensure adequate fluid intake to prevent dehydration.
- Drink plenty of safe and clean drinking water each day and avoid Sugar Sweetened Beverages (SSB).
- If you have NCDs, follow your doctor's instruction and manage them.
- Share your knowledge of traditional food with the younger generations.

LIVING WITH NCDs (TE ORA'ANGA MAKI NCD)

Healthy eating, regular physical activity, avoiding tobacco, and reducing alcohol intake are crucial for preventing and managing NCDs. Recommendations for a healthy lifestyle apply to everyone, including those with NCDs, with some additional advice based on specific conditions.

Condition	Consideration
High blood lipids— cholesterol or triglycerides	<ul style="list-style-type: none"> • Reduce saturated fat intake from meat, butter, cheese, full fat dairy and coconut oil. • Eliminate trans-fat often found in packaged foods like biscuits and cakes. • Get enough soluble fibre—found in oatmeal, beans, Brussel sprouts, apples, pears, bananas, etc. • Reduce total fat. • Drink plenty of safe and clean drinking water each day and avoid Sugar Sweetened Beverages (SSB). • Get adequate physical activity. • If you smoke, quit.
High blood pressure	<ul style="list-style-type: none"> • Eat plenty of vegetables, fruits, and whole grains to ensure adequate potassium, calcium, magnesium, fibre, and protein. • Choose foods low in saturated fat and trans-fat. • Reduce salt (sodium intake). Read labels and look for any form of sodium, salt, or MSG. • Avoid processed foods that are high in salt, sugar and fat • Use sodium free spices, fresh herbs, and aromatics to flavour food. • Get adequate physical activity. • Achieve/maintain an appropriate weight. • If you smoke, quit. • Drink plenty of safe and clean drinking water each day and avoid Sugar Sweetened Beverages (SSB). • Avoid or reduce alcohol. • Get a good night's sleep. • Manage stress.
Diabetes	<p>The plate for eating with diabetes is the same as the general food based dietary guidelines. Half of the plate will be protective foods/non-starchy vegetables or fruit; one quarter of the plate will be energy foods/starchy vegetables and one quarter of the plate will be body-building protein foods.</p> <ul style="list-style-type: none"> • Eat a variety of foods from the three food groups in the appropriate amounts every day. • Choose fresh local products/produce when possible. • Eat carbohydrate food at each meal for consistent carbohydrate distribution – consult with your health team on carbohydrate distribution and portion, especially if you are on insulin • Eat three regular meals every day at a consistent time. • Eat plenty of vegetables every day. Half the plate should contain vegetables. • Eat three or four portions of fruit every day. Avoid eating two or more fruits at one time. • Drink plenty of safe, clean water every day. Avoid drinking fruit juice and sugar sweetened drinks. • Choose and prepare foods with less fat, particularly saturated fat. • Choose and prepare foods with less salt. • Reduce or avoid consumption of alcohol. • Achieve and maintain an appropriate weight. • Be physically active every day.

Healthy eating, regular physical activity, avoiding tobacco, and reducing alcohol intake are crucial for preventing and managing NCDs. Recommendations for a healthy lifestyle apply to everyone, including those with NCDs, with some additional advice based on specific conditions.

Management plans for NCDs depend on the type of NCD, the patient's condition, and available resources.

Key Principles:

- Follow your healthcare provider's instructions and share all relevant information, including medications, family history, and lifestyle.
- If you make significant changes to your weight, diet, or physical activity, your doctor may adjust your medication.
- Certain conditions, like kidney failure, may require specific dietary restrictions.
- If you avoid certain foods due to allergies, beliefs, or medical advice, replace them with alternatives in the same food group.
- Consult your doctor, dietitian, or nurse for personalized recommendations.

READING FOOD LABELS

- Reading food labels can help us make healthy choices.
- Always compare the nutrition information panel (NIP) or health star rating of similar products, for example compare one brand of yoghurt with another brand of yoghurt.

Nutrition Facts	
Serving Size 2 tbsp. (33g)	
Servings Per Container 7	
Amount Per Serving	
Calories 20	Calories from Fat 10
% Daily Value*	
Total Fat 1g	2%
Sodium 190mg	8%
Total Carbohydrate 2g	1%
Protein 1g	
Vitamin A 2%	Vitamin C 15%
Iron 10%	Vitamin B6 20%
Vitamin B12 4%	
Not a significant source of saturated fat, trans fat, cholesterol, dietary fiber, sugars, and calcium.	
* Percent Daily Values are based on a 2,000 calorie diet.	

Things to look for...

1. Serving size
2. Number of servings per package/container
3. Amount per serving According to the label on the left if you eat the entire package, you will be eating 7 servings. This means that the amount per serving is multiplied by 7.

We should aim for less than 10g of total fat; 3g of saturated fat; and less than 300mg of sodium per serving in all foods we consume.

- The more stars out of five, the healthier the food or drink choice.



LIMITING UNHEALTHY FOODS

Choose, prepare, and eat foods with less fat, salt and sugar.

Highly processed foods are often high in salt, fat, and/or sugar. Additionally, these products often contain other additives such as preservatives, flavours, and colours. Often natural fibre has been removed. There are many reasons it is beneficial to eat less processed foods and instead to eat foods that are closer to their natural state.

Salt

While sodium and chloride, the components of salt, are important for health, many people consume too much. This can lead to dehydration and creates risk for high blood pressure. In turn, high blood pressure can lead to strokes and heart disease.

Limit salt to one teaspoon per day total, from all sources. This is equal to 2 g or 2,000 mg of sodium.

When reading labels, look for sodium, salt, rock salt, sea salt, and monosodium glutamate (MSG), sodium citrate, sodium bicarbonate and sodium alginate.

Packaged foods and ready-to-eat foods are often high in sodium.

Examples of high-sodium foods include canned meats and luncheon meats; soups, instant noodles, pickled foods, chips, crisps and savoury snacks; canned foods; take-away and fast food meals.



Tips to reducing salt.

- Eat less packaged, processed, and ready-to-eat foods.
- Put away the saltshaker.
- Read labels, including seasonings.
- Try to use other flavors instead of salt—use herbs, spices, garlic, ginger, onion, chilis, lemon.
- Give it time. If it tastes bland. Your tastebuds will adjust and increase appreciation for the taste of food.

Sugar

A diet high in free (added sugars) can lead to obesity and increased risk for NCDs as well as dental caries.

Limit free sugars to less than 10% of daily energy intake from all sources. Note that it is better for health to further reduce to 5% of daily calorie intakes.

Based on a sample 2,000-calorie diet.

- 10% of energy would be 200 calories or 53 grams of sugar which is equal to 12 tsp.
- 5% of energy would be 100 calories or 26 grams of sugar which is equal to 5-6 tsp.

Tips to reduce free sugars

- Read labels. Look for sugar, syrup, honey, molasses, and words that end in-ose like maltose, dextrose, fructose, glucose, sucrose, etc. There is hidden sugar in places you might not imagine.
- Reduce or stop drinking sugar-sweetened beverages like soda pop, soft drinks, fizzy drinks, and juice drinks. Reduce or stop adding sugar to coffee or tea.
- Eat less sweet foods like pastries, chocolates, lollies, and ice cream. Try whole fruit when you want something sweet.

Fat

Eat moderate amounts of fats and oils.

Fat is an important part of a healthy diet. It is a necessary nutrient that contributes to growth and body functions, is critical for absorption of specific vitamins, and helps us feel full and satisfied when we eat.

However, there are different types of fats. It is important to limit saturated fat and to eliminate trans-fat to reduce risk for NCDs. Fat is also very energy-dense, so a small amount contains a lot of calories—nine calories per gram.

Most fat in foods is a mix of the types of fat. Different fats have different functions.

Excess fats can contribute to weight gain, while trans-fat and saturated can increase blood fats and risk of NCDs.

Type of fat	Sources	Recommended limits
Cholesterol	<ul style="list-style-type: none"> Animal foods including meat, seafood and dairy products. 	<ul style="list-style-type: none"> 4.5-5.0 mmol/l
Trans fat (industrial)	<ul style="list-style-type: none"> Shortening, packaged foods like biscuits, pastries; re-use of oil for frying 	<ul style="list-style-type: none"> None or less than 1%
Saturated fat	<ul style="list-style-type: none"> Meat, dairy foods (butter, cheese, etc) coconut milk, cookies and pastries, fast food. 	<ul style="list-style-type: none"> Less than 10% of energy intake
Polyunsaturated fat (Omega 3 and Omega 6)	<ul style="list-style-type: none"> Flax, chia and hemp seeds, fish, walnuts, some fish, grass fed meat, oils of safflower, grapeseed, sunflower, corn, sesame, and walnut. 	<ul style="list-style-type: none"> Unsaturated fats may make up to 20% of total energy intake
Monounsaturated fat	<ul style="list-style-type: none"> Nuts, olives, olive oil, avocado 	
Total		<ul style="list-style-type: none"> Less than 30% of energy intake

What about coconut?

Coconut cream and oil from mature coconut flesh have received a lot of attention because of the high fat content, particularly the high levels of saturated fats in coconut oil. Traditional and modern Pacific cuisine includes plenty of coconut cream.

The fat content of mature coconut flesh (per 100 g edible portion) varies at different stages: coconut flesh, fresh, mature (40 g); coconut cream, fresh, no water (32.3 g); coconut cream, fresh, water added (24.9 g) and coconut oil (99.9 g).

There are mixed findings regarding the effects of coconut oils on cardiovascular health. Until more research is complete, continue to limit saturated fat to less than 10% of energy intake from all sources.

Tips for fat intake

- Read labels and avoid foods with hydrogenated or partially hydrogenated oils.
- Eat less processed and take-away foods.
- Limit deep fried foods. Instead bake, boil, grill, or steam.
 - If you fry limit re-use of oil
- Replace foods high in saturated fat like packaged foods, meats and dairy foods for foods that provide unsaturated fats like fish, avocados, and nuts.

KEYS TO SAFER FOOD

Prepare, store and keep food safe. Wash hands thoroughly with soap before and after preparing food.

Improper food handling, preparation, and storage can lead to food being contaminated with chemicals, micro-organisms and can cause foodborne diseases. Keeping food clean and safe can keep food fresh for longer.

A few simple steps can keep food clean and safe (WHO manual: Five Keys to safer food manual)

1. Keep hands and utensils clean
 - Wash hands before handling food and during food preparation.
 - Wash hands after using the toilet.
 - Wash and sanitize all surfaces and equipment used for food preparation.
 - Protect kitchen areas and food from insects, pests, and other animals.
2. Separate raw and cooked
 - Separate raw meat, poultry, and seafood from other foods.
 - Use separate equipment, utensils and cutting boards for handling raw foods.
 - Store food in containers to avoid contact between raw and prepared foods.
3. Cook thoroughly
 - Cook foods thoroughly, especially meat, poultry, eggs, and seafood.
 - Bring foods like soups and stews to a boil to ensure they have reached 70 degrees Celsius. For meat and poultry make sure juices run clear. Ideally use a thermometer.
 - Reheat cooked food thoroughly.
4. Keep food at safe temperatures
 - Do not leave cooked foods at room temperature for more than two hours.
 - Refrigerate promptly all cooked and perishable foods (preferably below 5 degrees Celsius).
 - Keep cooked foods piping hot (more than 50 degrees) prior to serving.
 - Do not store foods too long even in the refrigerator?
 - Do not thaw frozen food at room temperature (use the refrigerator).
5. Use safe water and raw materials
 - Use safe water or treat it to make it safe.
 - Select fresh and wholesome foods.
 - Choose foods processed for safety, such as pasteurized milk.
 - Wash fruits and vegetables thoroughly, especially if eaten raw.
 - Do not use foods past its expiration date.

Five keys to safer food



Keep clean

- ✓ Wash your hands before handling food and often during food preparation
- ✓ Wash your hands after going to the toilet
- ✓ Wash and sanitize all surfaces and equipment used for food preparation
- ✓ Protect kitchen areas and food from insects, pests and other animals

Why?

While most microorganisms do not cause disease, dangerous microorganisms are widely found in soil, water, animals and people. These microorganisms are carried on hands, wiping cloths and utensils, especially cutting boards and the slightest contact can transfer them to food and cause foodborne diseases.



Separate raw and cooked

- ✓ Separate raw meat, poultry and seafood from other foods
- ✓ Use separate equipment and utensils such as knives and cutting boards for handling raw foods
- ✓ Store food in containers to avoid contact between raw and prepared foods

Why?

Raw food, especially meat, poultry and seafood, and their juices, can contain dangerous microorganisms which may be transferred onto other foods during food preparation and storage.

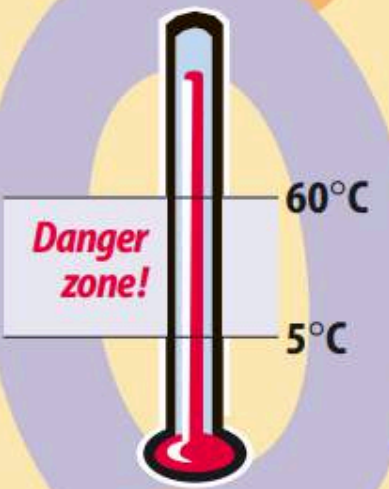


Cook thoroughly

- ✓ Cook food thoroughly, especially meat, poultry, eggs and seafood
- ✓ Bring foods like soups and stews to boiling to make sure that they have reached 70°C. For meat and poultry, make sure that juices are clear, not pink. Ideally, use a thermometer
- ✓ Reheat cooked food thoroughly

Why?

Proper cooking kills almost all dangerous microorganisms. Studies have shown that cooking food to a temperature of 70°C can help ensure it is safe for consumption. Foods that require special attention include minced meats, rolled roasts, large joints of meat and whole poultry.



Keep food at safe temperatures

- ✓ Do not leave cooked food at room temperature for more than 2 hours
- ✓ Refrigerate promptly all cooked and perishable food (preferably below 5°C)
- ✓ Keep cooked food piping hot (more than 60°C) prior to serving
- ✓ Do not store food too long even in the refrigerator
- ✓ Do not thaw frozen food at room temperature

Why?

Microorganisms can multiply very quickly if food is stored at room temperature. By holding at temperatures below 5°C or above 60°C, the growth of microorganisms is slowed down or stopped. Some dangerous microorganisms still grow below 5°C.



Use safe water and raw materials

- ✓ Use safe water or treat it to make it safe
- ✓ Select fresh and wholesome foods
- ✓ Choose foods processed for safety, such as pasteurized milk
- ✓ Wash fruits and vegetables, especially if eaten raw
- ✓ Do not use food beyond its expiry date

Why?

Raw materials, including water and ice, may be contaminated with dangerous microorganisms and chemicals. Toxic chemicals may be formed in damaged and mouldy foods. Care in selection of raw materials and simple measures such as washing and peeling may reduce the risk.

FOODBORNE ILLNESSES

Ciguatera and other marine food risks

It is said that holders of traditional knowledge in the Pacific knew when and where to avoid certain fish.

Larger reef fish like barracuda, red snapper, eel, and amberjack may have increased levels of the toxin. Fish eggs, liver, and intestine may have higher levels of toxins.

Ciguatera fish poisoning is caused by intake of a ciguatera toxin. There is no taste or smell and the toxin is not destroyed by cooking it. There are no warning signs.

Symptoms usually occur within 30 minutes to two days and include diarrhoea, vomiting, numbness, itchiness, sensitivity to hot and cold, dizziness and weakness.

The symptoms can be treated, and it is important to stay hydrated. The risk of death is low.

Symptoms may occur within minutes and include tingling of lips and tongue, then arms and legs, and then difficulty breathing. The only treatment is life support systems.

If you think you have been exposed to any type of fish or seafood poisoning, seek medical treatment.

Pay attention to any public health warnings related to algae blooms or areas known for ciguatera fish, and any risk management approaches such as seasonal, local, or size restrictions for other types of fish or seafood poisoning.

A HEALTHY WEIGHT

While many Pacific Islanders may have bigger frames than some other populations, overweight and obesity increase the risk of developing NCD as well as other health implications.

Many factors influence an individual's body weight and body mass index. This includes genetics, energy intake (food), energy use (work or physical activity), side effects of some medications and some medical conditions. Energy balance is the basis of weight control for most individuals. When energy intake is greater than the energy output, weight is gained and vice versa. When energy intake equals energy output, weight is maintained.

Control of energy intake can be achieved through eating a healthy and balanced meal and controlling the portion consumed at each meal.

Measurements of overweight and obesity:

1. Body Mass Index is the measurement of body fat based on height and weight and is an indicator of overweight and obesity.

The formula: **BMI = weight (kg) / height (m)²** Adults' weights are classified as:

Being overweight or obese increases the risk of developing diabetes, high blood pressure, heart disease and some cancers. It can also lead to other problems such as fatty liver, joint pain, skin infections, sleep apnea and difficulty conceiving.

Category	BMI	Risk of Morbidities
Underweight	<18.5	Increased
Healthy weight	18.5-24.9	Low
Overweight	25-29.9	Increased
Obese class I	30-34.9	Severe
Obese class II	35-39.9	
Obese class III	>40	

2. Waist circumference – an indicator of abdominal obesity which is a risk factor for NCDs

The Cook Islands NCD Guidelines specify that to reduce risk in adults:

- Males' waist circumference should be less than 102 cm; and
- Female waist circumference should be less than 95 cm.

3. Children under two are assessed using the **WHO Child Growth Standards**

4. Children under 5 years of age

- Overweight is weight-for-height greater than 2 standard deviations above WHO Child Growth Standards median; and
- Obesity is weight-for-height greater than 3 standard deviations above the WHO Child Growth Standards median.

5. Children aged between 5–19 years

Overweight and obesity are defined as follows for children aged between 5–19 years:

- overweight is BMI-for-age greater than 1 standard deviation above the WHO Growth Reference median; and
- Obesity is greater than 2 standard deviations above the WHO Growth Reference median.

PHYSICAL ACTIVITY

The health benefits of physical activity:

- Has significant health benefits for hearts, bodies, and minds.
- Can help to prevent and manage NCDs.
- Reduces symptoms of depression and anxiety.
- Enhances thinking, learning, and judgment skills.
- Supports healthy growth and development in young people.
- Improves overall well-being.
- Plays a role in weight management.

Minimum physical activity requirements for health are listed in the table below—more is better! People living with chronic illness or disability still need physical activity but may need to make adaptations.

Groups	Moderate or intense aerobic exercise.	Muscle and bone strength activities	Additionally
Under 1	At least 30 minutes of floor-based play/tummy time per day		More is better
2-5	At least 180 minutes per day of active play	Included in active play	More is better
5-17	60 minutes per day and on at least 3 days per week include vigorous level	3 x per week	More is better People living with chronic illness or disability still need physical activity but may need to make adaptations.
18-64	30 minutes per day at least 5 days per week	2 x per week	More is better.
65+	30 minutes of moderate to vigorous intensity aerobic exercise at least five days per week	2X per week	Add multicomponent activity on at least 3 days per week for balance and strength. More is better.
Pregnant and postpartum women	30 minutes of moderate intensity aerobic exercise at least five days per week	Incorporate	Include gentle stretching and pelvic floor exercises. More is better.

If you are not active now, start small and build up. It's never too late. Every move matters!

TOBACCO, ALCOHOL & OTHER DRUGS

There is no safe use of tobacco in any form. Nicotine is a drug found in tobacco and is an addictive substance that over time causes dependence and makes it difficult to quit.

Smoking is a leading cause of preventable disease and premature death. It is a significant risk factor for diabetes, heart disease and cancer.

If you use tobacco, qu. If you don't, do not start.

Drug abuse includes the inappropriate use of over-the counter medicines and prescription medicines as well as use of illicit drugs such as cocaine, ice, meth, or marijuana.

There is no safe use of illicit drugs and there are high risks in misuse of over-the-counter medication and prescription medication. Drug abuse can harm the body, impair judgement, lead to risk-taking behaviours, and create powerful addictions.

If you want to quit smoking or have developed a dependence on drugs, seek assistance from your medical providers.

Alcohol

The harmful use of alcohol is a risk factor for more than 200 different disease and injury states including injuries, diabetes, hypertension, chronic kidney disease, heart disease and stroke, and particularly cancer.

Alcohol consumption can have profound negative effects on health and well-being. Excessive drinking not only impairs judgment and coordination but also increases the risk of liver disease, cardiovascular problems, and various cancers. Furthermore, alcohol abuse contributes to social issues such as violence, family disruptions, and economic burdens. To mitigate these risks, the Guidelines advocate for moderate alcohol consumption or complete abstinence, particularly emphasizing the importance of responsible drinking practices. Education on the health consequences of alcohol abuse and strategies for harm reduction should be prioritized, along with promoting alternatives for socializing and relaxation that do not involve alcohol. Encouraging a supportive environment that values health and community well-being over excessive drinking will contribute to a healthier population in the Cook Islands.

Sector Roles for promoting healthy living in Cook Islands.

<p>Government Kavamani</p>	<ul style="list-style-type: none"> • Develop national nutrition policy. • Use fiscal measures to promote healthy eating and deter unhealthy eating. • Consider impact of trade agreements on foods systems including availability, affordability, and accessibility of healthy foods. • Protect children from exposure to marketing of unhealthy foods and beverages. • Promote healthy food systems including agriculture and fisheries. • Consider nutrition and food systems in land use decisions. • Set food standards. • Train food retailers and vendors in food safety, legal requirements, and basic nutrition. • Adopt and enforce food labelling. • Train and hire more nutritionists.
<p>Te Marae Ora</p>	<ul style="list-style-type: none"> • Train health professionals on nutrition and healthy eating. • Implement campaigns to increase awareness of nutrition principles such as eat more fruits and vegetables, how to read food labels, promote breastfeeding, • Provide nutrition counselling to individuals and families specific to health conditions, educate on risks of obesity. • Implement Baby Friendly Hospital Initiative • Provide IEC (information, education, communication) materials • Provide counselling/education sessions • Advocate for baby-friendly initiatives in hospitals, work places and community settings
<p>Ministry of Education Maraurau o te Pae Api'i</p>	<ul style="list-style-type: none"> • Ensure school curricula includes nutrition and healthy eating information. • Develop and implement school healthy foods policies and water only in schools. • Integrate nutrition education into school curricula beyond physical education and health such as agriculture and home economics.
<p>Ministry of Agriculture Pae Tanu</p>	<ul style="list-style-type: none"> • Preserve traditional knowledge of agriculture and fishing. • Provide seeds and education resources. • Strength local production and harvest to increase supply of local healthy foods. • Support gardening initiatives.
<p>Ministry of Marine Resources Tu'anga o te Pae Moana</p>	<ul style="list-style-type: none"> • Increase access to healthy fish and seafood • Conduct risk management activities, report appropriately • Educate community
<p>Community Oire tangata</p>	<ul style="list-style-type: none"> • Offer cooking classes • Community gardens • Create enabling environments for healthy eating in workplaces, churches, and schools. • Support breastfeeding in workplaces and churches • Healthy eating and water for island community functions

Future Directions

Looking ahead to the future of the Cook Islands Food & Beverage Dietary Guidelines, there is a clear focus on enhancing health outcomes and sustainability throughout our islands. Building upon traditional knowledge and local resources, the guidelines aim to promote a balanced diet that respects cultural practices while integrating modern nutritional science. Emphasis will be placed on promoting local produce and seafood, encouraging a reduction in processed foods, and advocating for sustainable agricultural practices. Education and community engagement will play pivotal roles, fostering a deeper understanding of nutrition's role in health and well-being. Additionally, there will be efforts to address health disparities and promote equity in access to nutritious food options. Through collaboration with stakeholders and ongoing research, these guidelines aspire to support a healthier, more resilient Cook Islands community for generations to come.

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