



Food & Health Guidelines for Fiji

March 2013



World Health
Organization

MINISTRY
of Health
Shaping Fiji's Health



NFNC
National Food and
Nutrition Centre

Food and Health Guidelines for Fiji

Nutritious foods and an active lifestyle can help achieve good health throughout life. This booklet outlines the Food and Health Guidelines for Fiji.

The 10 Food and Health Guidelines highlight the 3 Food Groups and lifestyle patterns that promote good nutrition and health. Each guideline deals with a key health issue affecting our wellbeing and, if followed, can help you live a healthy balanced life.

Nutritional needs differ at different stages of the life cycle and the guidelines try to reflect this. For example, breastfeeding is best for newborns. Older children need healthy meals and snacks to ensure good growth and development. Healthy meals are also important for adults who need to balance eating with physical activity to prevent weight gain.

In addition, adults also need to be more responsible with consumption of kava and alcohol. For both adults and children, some principles remain the same – the need to eat a wide variety of nutritious foods especially foods grown locally.

In Fiji not everyone has access to a wide variety of nutritious food or enough money to buy them. As a result, nutritional related diseases or Non Communicable Diseases (NCDs) affect more and more people.

Fiji Food and Health Guidelines (FHG), if followed, will lead to healthier lifestyles, people and families.

Guideline 1

Include a variety of foods from the 3 Food Groups in each meal

Go local!

Eat enough food to satisfy your hunger, and give you the important substances for growth, health and energy.

Try to have different kinds of food in your meals. Eat a variety of foods, every day from the 3 Food Groups, in the right amounts.

For Good Health

Health protective foods should be included in all meals and snacks. They are high in vitamins and minerals and help prevent diseases and infections.

Eat plenty of fresh Fiji grown green vegetables and fruits, 5 serving or more every day. Avoid overcooking of vegetables to prevent nutrient loss.

For Energy and Warmth

Energy giving foods should make up most of the food that you eat – about half of any meal or snack. Choose starchy foods like root crops (dalo, cassava, breadfruit, kumala, vudi) and wholegrain cereal foods like rice, roti, bread, porridge and breakfast cereals.

Eat only small amounts of fat like lolo, ghee, butter, oil or margarine in your meals.

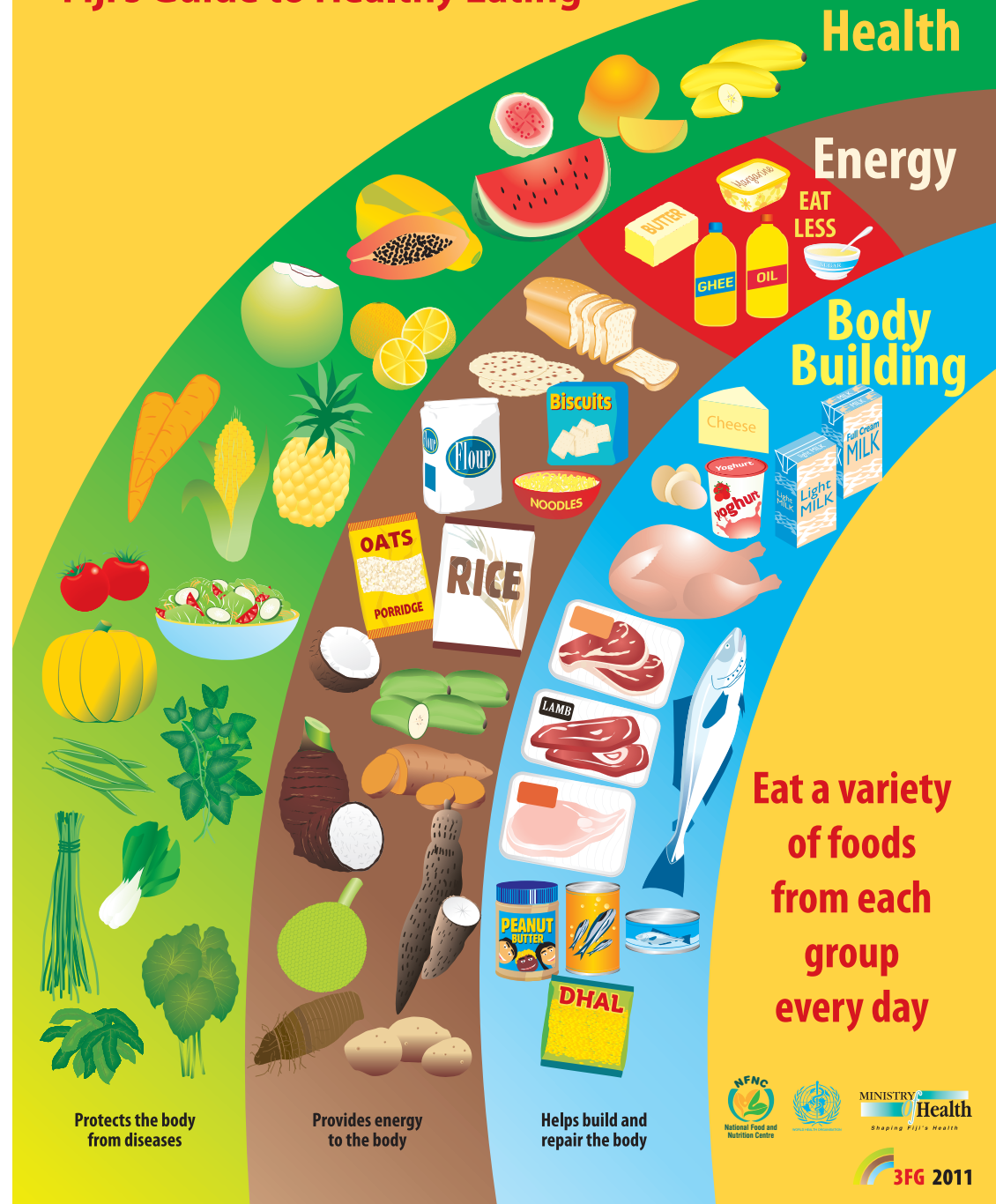
For Body-Building and Repair of Tissues

Body building foods should be included in small amounts in at least two meals a day.

Eat body building foods such as dhal, dried peas and beans, peanuts, lean meat, fish and other sea and river foods, lean chicken and duck, eggs, milk, cheese, yoghurt and other low fat dairy products.

3 Food Groups

Fiji's Guide to Healthy Eating



Choose and prepare food and drinks with less salt, sugar, fat and oil

People in Fiji use a lot of salt, sugar, fats and oil in their meals and drinks. When consumed in excess these are harmful to your health.

Salt

Salt is a common name for sodium. High levels of salt in the diet contributes to high blood pressure or Hypertension. High blood pressure increases the chances of having a stroke or heart attack and this risk more than doubles for people with diabetes.

Eating less salty foods can considerably lower the risk of high blood pressure, stroke and heart attack. Salt (sodium) in the diet comes from many sources. Reduce salt intake by eating less processed foods and by adding little or no salt to food during preparation and at the table.

! The body needs only 1 teaspoon (5g) of salt a day.

Sugar

There are 2 different types of sugars: simple and complex. Simple sugars such as table sugar and sugary foods and fizzy drinks raise blood sugar levels very quickly which is not good. Complex sugars like starchy foods raise blood sugar levels slowly and contain a lot of fibre which is also good for the body.

Eating too much sugar and sugary foods daily will lead to dental carries, overweight and obesity, which after a few years may develop into diabetes and other noncommunicable diseases.

Fats and Oils

The body needs some fat – but not as much as what most people eat. Fats are essential to give body energy and support cell growth. Fats also help protect the body organs and helps keep the body warm. The major fats in foods are ‘good’ fats (monounsaturated fats and polyunsaturated fats) or ‘bad’ fats (saturated fats and trans fats).

Eating fatty foods in large amounts increases weight and raises the blood cholesterol level, which is also a risk factor for heart attacks and strokes. It is recommended that you reduce fat and oil in your daily diet.

Key Points

- Eat less salty and fatty foods like savoury snacks (potato chips, fried peas, peanuts), sauces (tomato sauce), soy sauce, bread, margarine, cheese, noodles & canned meats, canned fish in salty oils or water.
- Avoid putting salt and sauce on the table at mealtimes. Instead of using salt try using herbs and spices, lemon juice, vinegar, garlic or fresh chillies for extra flavour.
- Avoid using other salts such as Vetsin, Chinese Salt or monosodium glutamate (MSG) when preparing meals
- Use less sugar in tea, coffee, or other drinks. If you add more than one teaspoon of sugar to each drink, try to cut down gradually.
- Reduce drinking fizzy drinks and other sugary soft drinks – drink fresh water, fresh coconut juice, unsweetened fruit juice, low fat or soy milk instead.
- Reduce using frying as a cooking method, instead use grilling, steaming, boiling, baking, stewing and making soups.
- Reduce using thick coconut cream and coconut milk (lolo and miti) – use it less often, and use a small amount.
- Remember, we all need some fat in our diets; we just need to be careful not to eat too much. Most adults need to look at eating less fried foods and less of the high-fat foods.



Guideline **3**

Be physically active to maintain a healthy weight

A healthy weight is important. People who eat more food than they need and are less active, or do not exercise, put on weight. The extra food is stored as fat in the body.

Overweight can lead to high blood pressure, heart disease, diabetes and cancer.

Increasing physical activity burns fat and extra energy. The amount of fat burned depends on how often you are active and for how long.

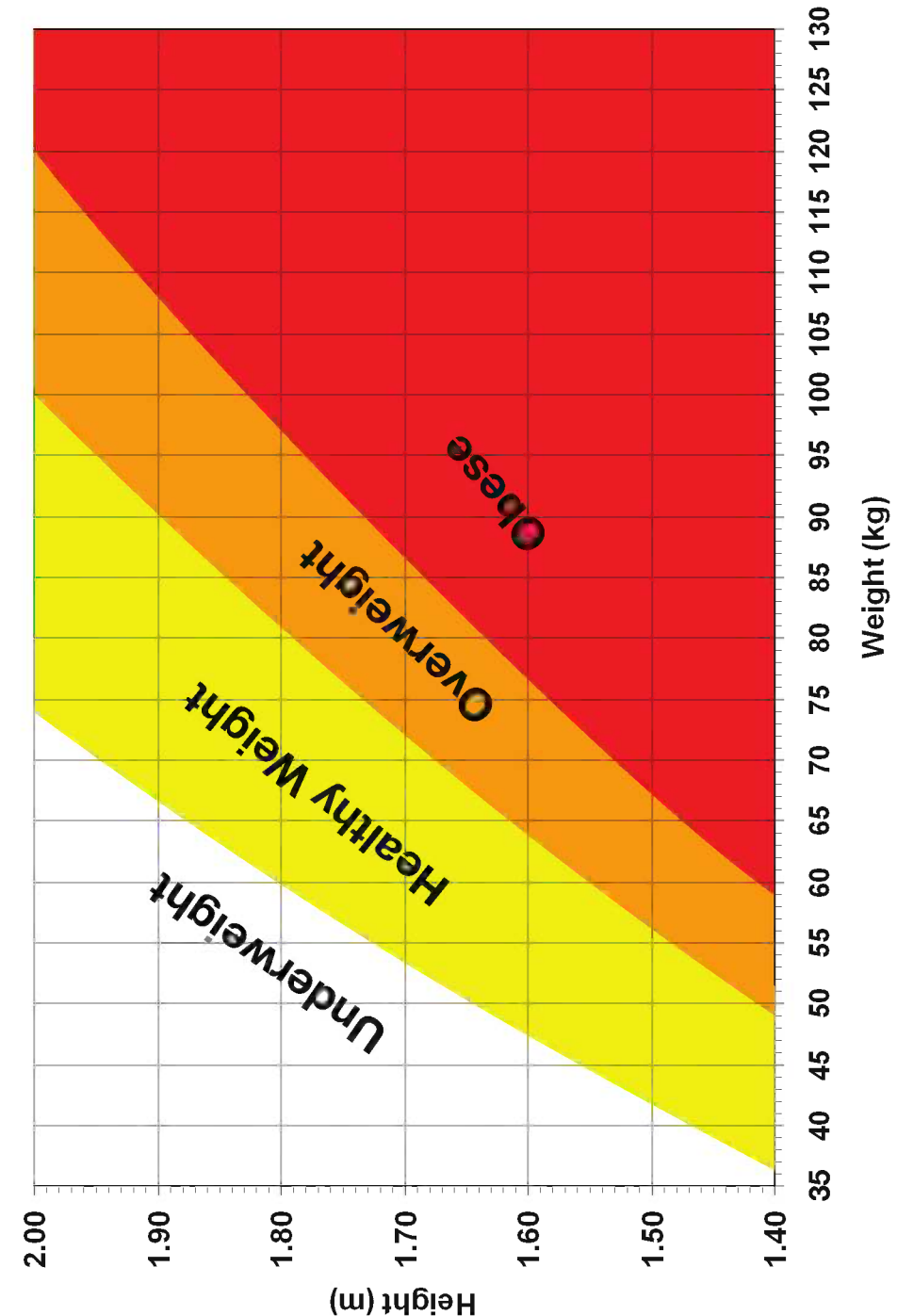
Aim to be active every day and reduce your sitting time. At least 30 minutes of moderate physical activity every day is recommended. Small amounts of activity, like doing active housework or gardening, all add up to your daily physical activity.

Extreme thinness in adults and severe underweight in children and adolescents is also dangerous to health. Children of all ages need enough energy and body building foods to maintain a healthy body weight.

Key Points

- Exercise regularly. Do at least 30 minutes of exercise every day - such as walking, running, jogging, dancing and swimming. Gardening is a great physical activity that will also give you fresh fruits and vegetables.
- Overweight and obese people should:
 - Reduce the amount and frequency of eating foods like cakes, biscuits and other sugary foods.
 - Eat less fatty foods.
 - Eat more fresh fruits and green vegetables.
 - Drink less alcohol and soft drinks.
- Very thin persons should:
 - Increase the amount of food they eat
 - Eat more energy foods in their meals to help bring their weight to normal.
- Always get medical advice on how to gain or lose weight.

Body Mass Index (BMI)



Eat more local fruits and vegetables

Fruits and vegetables have a very special role to play in our diet. Together with nuts and seeds they not only provide us with many essential nutrients our bodies need from day to day, they also protect us from infections as well as the ageing process.

Fruits and vegetables contain fibre. Fibre is the tough part of food. It is important as it makes our intestines work properly. Fibre helps prevent constipation. Foods which contain fibre are root crops, brown bread, wholemeal flour, brown rice, green leafy vegetables and fruits. Processed foods like noodles, white flour and white rice contain very little or no fibre.

As we get older, our bodies start to show wear and tear. Blood pressure can increase; blood vessels that feed the heart with vital oxygen can start to become blocked with cholesterol; some people may develop diabetes, cataracts in their eyes or even get cancer. Eating plenty local fruits and vegetables and including some nuts and seeds can help to prevent these problems.

Key Points

- Eat fresh local fruits and vegetables everyday and aim to have at least 5 servings of fruit and vegetables everyday.
- Eat plenty of green leafy vegetables such as:
 - bele
 - rourou
 - saijan
 - chauraiya
 - ota
 - Chinese cabbage
- Eat plenty of orange and yellow fruits and vegetables such as:
 - pumpkin
 - pawpaw
 - mango
 - carrots
 - bananas



Eat healthy snacks

Snacks are foods or drinks taken in between meals. Healthy snacking in small amount, as part of a healthy diet, is a great way to get all the nutrients you need. Healthy snacks can help maintain your blood glucose (sugar) levels throughout the day, but these must not replace proper meals.

Your need for snacks depends on your:

- age
- health
- weight and
- activity level

Snacks can help people with small appetites to meet their nutritional needs. Eating food regularly is also important for anyone who has an active lifestyle through work or exercise.

Having small healthy snacks between meals helps in weight loss. Eating snacks with fibre can also make you feel full for a longer time.

Learn to recognize true hunger and fullness. Skip the urge to nibble when you are bored, tired, upset or stressed. Try something else like walking the dog, going for a jog, reading a book, or listening to your favourite music.



Healthy snacks include locally grown fruits and vegetables, milk and milk products and even bread or biscuits spread with small amounts of butter, margarine or other spreads like peanut butter and honey.

Many of the snack foods sold in brightly coloured packets contain nothing but fat, salt and starch. Avoid unhealthy snacks which often contain high amounts of sugar, salt and oil.

Key Points

The challenge with snacking is deciding what kinds of food to snack on – and how much.

- Include a variety of foods from the 3 food groups for each snack.
- Eat local nuts such as vutu, tarawau, dawa (when in season) and coconuts (bu).
- Eat fresh local seasonal fruits like banana, pawpaw, pineapple and mango. It's healthier to eat fruit with skin when possible as it contains lots of fibre.
- Cooked foods like boiled peas, peanuts and ivi add variety.
- Limit snacks to no more than three a day.
- Choose fruits and vegetables, low-fat milk products, and grain products more often.
- Avoid snacking out of the packet – take out the amount you want to eat and put the packet away or buy smaller packets.
- Whole fruit is a better choice than juice, as most of the fibre is removed during the juicing process.
- Drink water often. Water has no calories. Water quenches your thirst and helps you feel full without any added calories.
- Avoid snacking while watching TV, reading, working on the computer or driving. This will lead to overeating.
- Snacking on fresh and crunchy fruits and vegetables keeps the mind alert and fresh. It also helps in keeping the blood sugar levels normal.
- Maintain good hygiene - wash Hands, and keep food covered!

Food and Health Guidelines for Fiji

Include a variety of foods from the 3 Food Groups in each meal. Go Local!

Choose and prepare food and drinks with less salt, sugar, fat and oil.

Be physically active to maintain a healthy weight.

Eat more local fruits and vegetables.

Eat healthy snacks.

Breastfeed your baby exclusively for the first 6 months

Give children healthy meals and snacks

Stop smoking. Drink kava and alcohol responsibly.

Drink clean and safe water.

Grow your own food.



Breastfeed your baby exclusively for the first 6 months

Breastmilk is nature's perfect baby food. This milk has just the right nutrients in the right amounts to nourish the baby. Fiji's Ministry of Health, along with WHO and UNICEF, recommends exclusive breastfeeding for the first completed six months of life.

Mothers need encouragement and support to breastfeed. It is everyone's responsibility to support breastfeeding.

In addition:

- Breastfeeding should begin within half to 1 hour of birth.
- Breastfeeding should be 'on demand', as often as the baby wants day and night. Babies normally settle into routine feeding time by themselves!
- Bottles and dummies or pacifiers should not be used; these cause difficulties for babies to breastfeed.

Breastfed babies are usually healthier and happier.

The benefits of breastfeeding go beyond good nutrition. It is also hygienic, cheap, convenient and available on demand. Breastfeeding helps the mother recover after childbirth and return to normal body weight.

At six months old, the baby should be given other foods in addition to breastmilk. Breastfeeding should be continued for up to two years or more.

Key Points

- Breastfeeding should continue even when mothers need to be away from baby.
- Ask your MCH Nurse to teach you how to express breastmilk (EBM).
 - EBM can be stored in a clean container in a cool place (in the kitchen) and can be used within 24 hours without needing refrigeration.
 - When needed EBM can also be refrigerated and used within 3 days.
 - EBM stored in the deep freezer at -20°C and can be kept for 1 year.
- Breastfeed on demand, even throughout the night.

Benefits to Baby

- Colostrum—the first milk (colourless or yellow) produced during the first few days after birth helps the newborn's digestive system to grow well.
- Breastmilk (especially colostrum) has antibodies that help protect the baby against a number of infections e.g. diarrhoea, asthma and allergies.
- The protein, iron and fat in breastmilk is much better absorbed by the baby's body than the protein, iron and fat in formula milk.
- Babies who are breastfed have less gas, fewer feeding problems and often less constipation.
- Breastfed babies are at lower risk for Sudden Infant Death Syndrome (SIDS).

Benefits to Mother

- Breastfeeding reduces the risk of ovarian and breast cancer. The longer a mother breastfeeds, the lower her risk of breast cancer.
- It helps to reduce weight.
- Helps develop a close bond between mother and baby.
- Breastfeeding does not cost extra money.
- Helps prevent heavy bleeding after delivery.
- Delays next pregnancy.



Give children healthy meals and snacks

Giving children many different foods helps ensure that they will get adequate nutrients for growth and development. It also helps establish healthy future eating habits.

Young children often have irregular appetites; they can eat a lot at one meal and little at the next. Giving them a variety of foods at mealtimes and snacks balances the day's intake.

Serving healthy snacks to children is important for normal growth and development, and supporting lifelong healthy eating habits.

Snacks should be served 1 – 2 hours before the main meal.

Most of the snacks served to children should be fruits and vegetables, since most children do not eat the recommended 5 servings of fruits and vegetables each day.

Fruit is naturally sweet, so most children love it. Fruit can be served whole, sliced, cut in half, cubed or in wedges. Canned, frozen and dried fruits can be used occasionally.

Try lots of different fruits and vegetables and prepare them in various ways to find out what your child likes best.



Dairy Foods

Dairy foods are a great source of calcium, which helps to build strong bones and teeth. Most calcium is obtained from milk and other dairy products. Yoghurt can be used to add in smoothies. Serve cheese in small bite portions or with other foods like fruit, vegetables or crackers.

Healthy Drinks

Water should be the main drink served to kids in between meals. Water satisfies thirst and does not have any sugar.

Milk provides key nutrients such as calcium and vitamin D. To make milk more interesting serve with a drop of vanilla essence, lemon leaf, coboi or a small teaspoon of Milo. Smoothies and milkshakes are also a good alternative to plain milk.

Fresh fruit juices are very healthy and contain lots of vitamin C. Fresh orange, pineapple, pawpaw juices are more healthy than commercially produced apple, pear and grape juices. Fruit juices are rich in vitamins, minerals and cancer fighting compounds. Avoid giving softdrinks and high-sugar drinks to children as they contain very high levels of sugar, which can lead to tooth decay.

Snack Ideas

Try making some of these snacks for your child:

- Fresh fruits and vegetables.
- Frozen fruits (such as banana popsicle); canned fruits (in juice or light syrup); dried fruit (without added sugar); fruit salad; fruit juice popsicle; and homemade smoothies.
- Vegetables such as carrots and cucumber can be served by themselves or with dips such as avocado or peanut butter and even as vegetable wraps with wholemeal roti.
- Sandwiches: try different fillings e.g. mashed cooked eggs, bananas, avocado or other mashed fruits, peanut butter and banana, vegemite, or honey etc.
- Breakfast cereal with milk: add pawpaw or banana to their usual cereal.
- For teething babies – wrap a piece of watermelon or apple in a small clean handkerchief or netting material. Baby will love the juice from the fruit and also soothe sore gums due to teething.

Stop smoking. Drink kava and alcohol responsibly

Several substances in tobacco and alcohol, particularly in tobacco, are harmful to health and cause heart disease, lung cancer and other lung diseases.

Excessive alcohol consumption and smoking by the mother during pregnancy slows the growth of the baby: it can also lead to premature births, deaths and miscarriages.

Smoking, alcohol and kava also result in poor sports performance. These items also cost a lot of money.

Key Points

- No level of smoking is safe – even breathing other people's cigarette smoke is harmful. If you are smoking, try and stop by cutting down gradually or by stopping at once.
- Drinking in moderation is safe, but dangerous in excess.
- Moderation means no more than **3 - 5 kava bowls** or **2 - 3 drinks** a night.
- Too much kava can replace your food intake which in turn could cause malnutrition.
- A drink of alcohol would be one measure or nip of spirit (like whisky or vodka), one small can or bottle of beer, or one small glass of wine (100ml).
- Consuming too much alcohol over a long period can damage the liver and raise the blood pressure which increases the risk of heart disease and stroke.
- Consuming too much alcohol can also result in social problems such as violence and accidents.



Standard Drinks (SD)

A Standard Drink = 10g alcohol



How much is a standard drink?

Can/Stubby low-strength beer	= 0.8 standard drinks
Can/Stubby mid-strength beer	= 1 standard drink
Can/Stubby full-strength beer	= 1.4 standard drinks
100ml wine (13.5% alcohol)	= 1 standard drink
30ml nip spirits	= 1 standard drink
Can spirits (approx. 5% alcohol)	= 1.2 to 1.7 standard drinks
Can spirits (approx. 7% alcohol)	= 1.6 to 2.4 standard drinks

Safe Drinking Levels

For males:

No more than 6 SDs per day; 21 SDs per week

For females:

No more than 4 SDs per day; 14 SDs per week.

These drinks should be spread out over several hours:

- Men should have no more than 2 SDs in the first hour and 1 per hour after that.
- Women should have no more than 1 SD per hour

Source: NCD Factsheets Compendium, NFNC
'Standard Drinks Guide', Australian Government Health Website

Drink clean and safe water

Water is valuable for life. It is an essential nutrient which fulfills important functions in our body. Therefore we must drink at least 1½ to 2 litres of water a day (more for adults and older children).

If water is contaminated it can be harmful to your health. Water must be made safe for drinking, preparing foods and washing dishes.

Contaminated water can cause diseases such as:

- Typhoid fever
- Cholera
- Leptospirosis and
- Severe diarrhoea and dysentery

Key Points

- Boil all drinking water especially if the water supply is not treated.
- You should have at least 6 – 8 cups of water per day. That is about 1 ½ - 2 litres. Water is the best drink.
- Drinks like tea and coffee are diuretics, which make you produce more urine than usual. So if you drink lots of tea and coffee, you still need to drink plenty of water.
- Fruits and vegetables also contain some water. Include them in your daily diet.
- Fizzy and sugary drinks are also not a good way to get your fluid. The high sugar content can cause unwanted weight gain, or take the place of more nutritious foods in your diet.
- During times of Natural Disasters (such as floods and cyclones) be extra careful with drinking water. Boil all water for at least 15 minutes and keep it in covered containers.



Keeping Water Safe

Most households receive supplied treated water, which has been disinfected using chlorine. Chlorine is a chemical which kills microbes and is a common disinfectant.

The best way to make water safe is by boiling it for at least 3 minutes.

Water purification tablets can also be used to disinfect water. However these tablets are not commonly available and are expensive.

Grow your own food

Gardening is fun and provides fresh fruits and vegetables for the family’s meal.

Added benefit to gardening is that it provides some physical activity and keeps you healthy.

Key Points

- Improve your family’s health by eating more fresh fruits and vegetables.
- Save money with fresh produce from your garden.
- Get outdoor exercise. Gardening activities add purposeful physical activity to your day. Gardening is also a way to relax, de-stress, clear your mind, and get fresh air and sunshine.
- Enjoy better tasting food. Fresh food is the best tasting food.
- Having a garden provides you with fresh local fruits and vegetables. You won’t have to worry about food safety because you can trust that your food is safe and healthy to eat.



Seasonal Planting Calendar

January	February	March
Bele Chinese Cabbage Pumpkin	Rourou Eggplant Karamua	Tubua/Chauriya Okra Saijan
April	May	June
Tomatoes French Bean Cucumber	Capsicum Watermelon English Cabbage	Carrots Dhania Spring Onion
July	August	September
Cowpea (<i>Boda</i>) Lettuce Cauliflower	Tubua/Chauriya Chinese Cabbage Rockmelon	Bele and Rourou Zucchini Winged Bean
October	November	December
Bele Chinese Cabbage Pumpkin	Rourou Eggplant Saijan	Tubua/Chauriya Okra Karamua

Warm Season Planting

Cool Season Planting

References:

- SPC's Detailed Manual for local trainers (Background Materials for four Posters) – Healthy Eating in the Pacific, Pacific Guide to Healthy Eating, Eat less of these foods for Good Health, The Path to a Healthier Pacific, Lifestyle Health Section, Noumea, New Caledonia, 2002
- Food for Health – Dietary Guidelines for Australians, Australian Government, Department of Health & Ageing, National Health and Medical Research Council, 2005
- Mean Body Mass Index (BMI), World Health Organization, 2013
http://www.who.int/gho/ncd/risk_factors/bmi_text/en/index.html
- Foods for Growing Children in Fiji, National Food and Nutrition Centre, Fiji 2011
- Internet: Home Tips: Gardening is Good Exercise, 2010
- Evaluation of the Effects of Kava on the Liver by Dr Joji Malani, 2002
- NZ Food Guides, 2003
- NFNC, NCD Fact Sheets, 2010

Images:

Page 11 from left to right:

- “Pouring Oil 1” by Flickr user ‘fdmount’, 2012
<http://www.flickr.com/photos/fdmount/6845416940/>
- “shakers4 “ by Flickr user Amanda Siska, ‘BreadnBadger’, 2010
<http://www.flickr.com/photos/breadnbadger/4631062734/>
- “A Spoonful Of Sugar “ by Flickr user Caro Wallis, ‘carowallis1’, 2010
<http://www.flickr.com/photos/carowallis1/4388310394/>

Page 21:

- “Glass of water” by Flickr user ‘bergius’, 2005
<http://www.flickr.com/photos/bergius/77596187/>



**National Food and
Nutrition Centre**

National Food and Nutrition Centre

1 Clarke Street, Suva
P. O. Box 2450
Government Buildings
Suva, Fiji Islands

Ph: 3313 055 Fax: 3303 921
E-mail: nfnc@connect.com.fj
Website: www.nutrition.gov.fj
FB: www.facebook.com/NFNCFJ