

NGĀ KAI TŌTIKA MŌ TE HUNGA PUKA-HUAWHENUA

EATING FOR HEALTHY

VEGETARIANS



As a vegetarian, you can get all the essential nutrients from food without eating animal products. When planning vegetarian meals, it helps to know about the nutrients in different foods so you can get the most benefit from the food you eat.



This booklet has guidelines on:

- the important nutrients you need to consider when planning vegetarian meals
- healthy food and drinks
- being active in everyday life
- how to prepare and store food safely.

These guidelines are based on the Ministry of Health's *Food and Nutrition Guidelines for Healthy Adults*, available at www.health.govt.nz. For further sources of information, see also the back page of this booklet.

What is a vegetarian diet?

Vegetarians choose not to eat red meat, white meat, or fish. Some common reasons are:

- health benefits
- religious beliefs related to food
- commitment to animal rights
- dislike of meat.

There are many types of vegetarian diets but two are most common.

- **Lacto-ovo vegetarians** eat dairy products and eggs ("lacto" means dairy and "ovo" means eggs) but don't eat meat, poultry, or seafood.
- **Vegans** don't eat any animal products (including all meats, dairy, eggs, honey and gelatin).



Make healthy choices

Look after yourself. Your health is important and what you eat and drink affects it. The healthy living recommendations below apply to everyone, not just vegetarians.

- Maintain a healthy body weight by eating well and by being active every day.
- As often as you can, eat meals with your friends, family and whānau – and turn off the TV and your cellphone.
- Lead by example – encourage your friends, family and whānau to make healthy food choices.
- Eat three healthy meals (low in fat, salt and sugar) every day plus healthy snacks between meals. You also need to drink plenty of water.
- If you choose to drink alcohol, limit your intake.
- Think about food safety when you buy, prepare, cook and store food.
- The household budget affects food choices. Planning ahead can help you choose healthy foods when you shop. It can also help you get the most for your money.

Always take time to eat a healthy breakfast – so you have energy to start to the day.

Eat many different foods

To be healthy you need to eat many different foods. The four main food groups have a mixture of nutrients – carbohydrates, fats, proteins, vitamins and minerals – all of which you need to stay healthy.

Choose a variety of foods from the four food groups every day:

- vegetables and fruit – see page 7
- breads and cereals – see page 8
- milk, milk products and alternatives – see page 9
- legumes*, eggs, nuts and seeds – see page 9

*Legumes include cooked dried beans, peas and lentils.



Important nutrients

As a vegetarian, you need to make sure you get enough protein, iron, vitamin B12 and calcium from the foods you eat. You can get these essential nutrients from non-meat sources by eating a variety of foods including fruits, vegetables, legumes*, soy products, whole grains, nuts and seeds.

This section explains why these nutrients are important and gives examples of foods that have them.

Protein

Protein is important for your body's normal growth and to keep its muscles (which are mostly protein), immune system, heart and lungs working well. Lacto-ovo vegetarians get protein from milk, milk products, eggs, legumes, nuts, seeds, breads and cereals. Vegans get protein from legumes, nuts, seeds, breads and cereals.

Iron

Iron is important for your blood and brain. Vegetarians can get enough iron by eating plenty of green vegetables, wholegrains, and some beans, peas and nuts.

Vitamin C helps the body to take up (absorb) the iron more easily. When you eat foods containing iron, eat foods rich in vitamin C, such as oranges, kiwifruit, tomatoes, peppers, kale and broccoli at the same time.

Don't drink tea with your meals as it stops the iron from being absorbed by your body.

* Legumes include cooked dried beans, peas and lentils.



Calcium

Calcium is important for strong bones and teeth. Milk, yoghurt and cheese are good sources of calcium.

If you don't drink cow's milk, choose a different product (eg, soy milk) with added calcium. Other foods such as wholegrain bread, peanuts, broccoli, spinach, baked beans and tofu also contain calcium, but in smaller amounts than milk and milk products.

Vitamin B12

The human body needs vitamin B12 in very small quantities. Vegetarians, other than vegans, get enough of this vitamin from dairy products. There is no natural non-animal source of vitamin B12. Vegans can get this through supplements or by intramuscular injection. Some soy milks are fortified with vitamin B12.

Vitamin B12 is very efficiently recycled by the human body, so it often takes a long time for deficiencies to develop in vegans. Vitamin B12 deficiency is a serious condition with non-reversible effects. This is most likely to occur in periods of rapid growth, in pregnancy and when breastfeeding. Vegans are advised to have their vitamin B12 status assessed regularly by their doctor.



Vegetarian children

As with adults, meals for vegetarian children need some planning. Many vegetarian foods are bulky. Children's stomachs may be too small to hold all the food they need for activity and growth.

Serve small meals often. Offer a range of vegetables, fruit, wholegrain breads and cereals, legumes, nuts, seeds, eggs, milk and milk products.

Vegetarian children need food with iron, such as wholegrain cereal and bread, legumes, dried fruits and dark green leafy vegetables. To help them absorb the iron, serve these foods with fruit and vegetables high in vitamin C, such as tomatoes and oranges.

If a vegetarian child does not drink milk, give other drinks such as soy milk with added calcium and vitamin B12.

If a vegetarian child does not eat dairy products or eggs, ask your doctor or nurse about seeing a dietitian for further advice.

The serving sizes in this booklet:

- are not suitable for children aged 0 to 2 years
- may need to be increased for teenagers who are still growing.



Choose a variety of foods from the four food groups every day.

Vegetables and fruit

Vegetables and fruit provide carbohydrate, fibre, vitamins and minerals and are low in fat. They should be eaten with most meals and are good snack foods.

- Choose fresh, well-washed vegetables and fruit or frozen or canned varieties.
- Eat many different coloured vegetables and fruit; for example, tomato or strawberry, broccoli or kiwifruit, carrot or mandarin, eggplant or plum, potato or pear.

How much do I need?

At least **3** servings of vegetables (with at least one being a leafy green vegetable) and **2** servings of fruit every day.

What is 1 serving?

- 1 medium potato, kūmara, yam, or taro (135 g)
- ½ cup of cooked vegetables, or salad (50–80 g)
- 1 tomato (80 g)
- ½ cup of leafy green vegetables (50–60 g)
- 1 apple, pear, banana, or orange (130 g)
- 2 small apricots or plums (100 g)
- ½ cup of fresh fruit salad (135 g)
- ½ cup of stewed fruit: fresh, canned or frozen (135 g)

Dried fruit and fruit juice are not recommended because they have a lot of sugar. If you choose them, have only one serving of dried fruit (about 2 tablespoons or 25 g) **or** one serving of juice (1 cup or 250 ml) each day.



Breads and cereals



Breads and cereals give you carbohydrate, which is an important source of energy and fibre. They also provide iron, calcium, protein and folic acid. You need to eat breads and cereals every day.

- These foods include breads and breakfast cereals, rice, noodles and pasta.
- Choose wholegrain breads and cereals (eg, rolled oats, brown rice, bread with whole grains) because they contain the most fibre, vitamins and minerals.

How much do I need?

At least **6** servings every day.

What is 1 serving?

- 1 small wholegrain roll (50 g)
- 1 medium slice of wholemeal bread (26 g)
- 1 cup of cooked pasta or rice (150 g)
- 2 breakfast wheat biscuits (34 g)
- 1 cup of cornflakes (30 g)
- ½ cup of muesli (55 g)
- ½ cup of cooked porridge/rolled oats (130 g)
- 2 plain sweet biscuits (14 g)
- 1 muffin (80 g)



Milk, milk products and alternatives

These foods provide energy, protein and many vitamins and minerals, including calcium and vitamin B12.

- Choose reduced-fat or low-fat milk, yoghurt and cheese.

How much do I need?

At least **2–3** servings every day. Choose reduced-fat or low-fat options.

What is 1 serving?

- 1 glass (250 ml) of reduced-fat or low-fat milk
- 1 glass (250 ml) of soy milk with added calcium (and vitamin B12 for vegans)
- 1 pottle of low-fat yoghurt (150 g)
- 2 slices (40 g) or ½ cup of grated of cheese (eg, edam)



Legumes*, eggs, nuts and seeds

These foods all contain protein, fat and many different vitamins and minerals – including iron.

How much do I need?

At least **2** servings every day.

What is 1 serving?

- ¾ cup of cooked beans – eg, soybeans, kidney beans, baked beans
- ¾ cup of cooked chickpeas
- ¾ cup of cooked lentils – eg, brown or red
- ⅓ cup of nuts or seeds (50 g), – eg, peanuts, cashews, almonds, pumpkin
- ¾ cup of tofu or tempeh (200 g)
- 1 egg



*Legumes include cooked dried beans, peas and lentils.



Foods high in fat, sugar, or salt

You need to eat healthy food most of the time. It's all right to eat foods that are high in fat, sugar or salt **occasionally** (less than once a week) but not every day.

Fat, salt and sugar are found in many foods. Foods that are high in fat, sugar or salt include muesli bars, sweets, potato chips, chocolate, sweet biscuits, pastry, most takeaways and soft drinks. Most of the salt you eat comes from processed foods, such as chippies, soy sauce, salted peanuts and pickled foods.

How to reduce fat, sugar and salt

- When shopping, read the labels on different products and compare them so that you can choose products that are lower in fat, sugar and salt. Sugar on food labels is sometimes called fructose, sucrose or honey. Salt is usually called sodium.
- Grill, bake, boil, steam, stir-fry or microwave your food instead of frying it.
- Use only a little oil, margarine or butter for cooking and as a spread.

- Choose low-fat milk, cheese, yoghurt and salad dressings.
- If you are trying to reduce the fat in your diet, make sure you don't increase the amount of sugar you eat. If you're hungry, fill up on breads and cereals instead of biscuits, cakes or sweets. Breads and cereals will keep you feeling full for longer.
- Eat meals without adding salt. Use less or no salt during cooking and taste your cooked food before adding salt.
- If you do use salt, iodised salt is recommended.

Eating when you are out and about

Most takeaways are high in fat and salt. Have them on special occasions and not as an everyday food. Some lower fat takeaways include:

- kebabs and wraps
- pizza with more vegetables than cheese
- vegetable sushi
- pasta with tomato-based sauces
- thick chunky chips or wedges instead of thin chips
- noodle-based takeaways (not fried) with lots of vegetables
- baked potatoes with beans and salad.



Drinks

To keep your body working properly, you need about 6–8 cups of water or other drinks each day. Tea and coffee can be included, but limit the amount of cordial, energy and soft drinks that you have.

- Water is best – it’s cheap and easy to get. Keep a jug of cold water in the fridge and carry a bottle of water with you when you are out and about.
- Low-fat milk (or non-dairy alternative) is also a good drink because it contains energy and many vitamins and minerals.
- Drink more in warm weather and when you are doing lots of physical work or activity.

Limit alcohol

Drinking too much alcohol can cause health problems as well as injury. Alcohol is also high in energy, so you should drink less if you need to lose weight.

There is no “safe” level of alcohol for all people at all times. The amount you can drink depends on your age, whether you are male or female, and your body size, food intake and general health.

If you choose to drink alcohol, drink only a little, eat some food, don't binge drink and do not drive.



Be active every day

For improved health and wellbeing, aim to do at least 30 minutes of physical activity every day.

Be active in as many ways as possible. Take the stairs rather than the lift and get off the bus early and walk. Move more and sit less. If possible, add some vigorous activity for extra health and fitness (see the table below).

Thirty minutes a day will help you to:

- have more energy
- lower your stress levels
- improve your posture and balance
- maintain a healthy weight
- keep bones and muscles strong and joints flexible
- feel more relaxed and sleep better
- reduce the risks of heart disease, obesity, strokes, type 2 diabetes, some cancers, depression and falls
- live independently for longer.

Aim for mainly moderate and some vigorous activities.

Moderate activities	Vigorous activities
<p>I'm breathing faster and my heart is beating a bit more.</p> <p>I can still talk!</p>	<p>I'm puffing and my heart is beating faster.</p> <p>I can only say a few words without taking a breath.</p>
<ul style="list-style-type: none"> • Brisk walking • Biking on the flat • Ballroom dancing, line dancing • Raking the garden, trimming shrubs, hoeing • Aqua aerobics • Sports, eg, golfing (carrying your bag), kapa haka 	<ul style="list-style-type: none"> • Jogging • Biking faster than 16 km per hour • Dance aerobics • Heavy digging, mowing with a hand mower, splitting logs • Fast lap swimming • Sports, eg, waka ama, rowing, kilikiti

Getting started

Start slowly if you have been inactive for a long time. Seek advice before you exercise if you are unsure about your health or have not exercised for a while.

If you experience pain, dizziness, or shortness of breath during your activity, stop doing it and talk to your doctor.

Your doctor or practice nurse can provide a Green Prescription (written advice on getting active and feeling better). They can also put you in touch with people who can support you and keep you motivated.

For extra health benefits (including weight loss), do at least 60 minutes of moderate aerobic physical activity on most days of the week.

Food safety

Clean, safe and careful handling of food is important. Foodborne illness can be mild, but sometimes (especially if you have low immunity) it can be life threatening or cause death.

By following the 3 Cs (**clean, cook, chill**) below, you can prevent illness that is caused by harmful bugs getting into food. Thorough cooking will kill most harmful bugs and chilling food will slow their growth in cooked and ready-to-eat food.

Clean

- Always wash your hands before and after preparing food and after going to the toilet, changing nappies, touching pets and gardening.
- Use clean utensils (knives, forks, etc) to prepare foods and use clean dishcloths and tea towels.
- Use separate chopping boards for raw food and cooked food or thoroughly scrub and dry the board before using it again.
- Thoroughly wash and dry whole raw fruit, vegetables and herbs before use.



Cook

- Defrost frozen foods thoroughly before cooking.
- If you are cooking or eating outdoors, make sure that all food remains covered and cool until you are ready to cook or eat it.
- Reheated food must be steaming hot right through (above 70°C). **Only reheat food once.**
- When buying pre-cooked food, make sure that it is either chilled or steaming hot.

Chill

- Keep your fridge clean and make sure the temperature is between 2°C and 4°C. You can check the temperature using a thermometer.
- Keep all chilled or frozen foods in the fridge or freezer until you are ready to use them.
- If you share a fridge with non-vegetarians, ask them to cover any raw meat and to store it in the bottom of the fridge so the meat cannot drip onto other foods.
- Eat canned food immediately after opening or transfer the food immediately to a covered, non-metal container and refrigerate.
- Check the “use by” date before you buy chilled and frozen foods. Take them home quickly and refrigerate or freeze them straight away.
- Marinate food in the fridge, not on the bench.
- Use a chilly bin with an ice pack if you are going on a long trip or the weather is hot.
- Only let hot food cool for a maximum of two hours before putting it in the fridge.
- Use cooked, prepared and canned food stored in the fridge within two days. If you don't use it by then, throw it out.



FOR MORE INFORMATION

Speak to your:

- doctor, practice nurse, or public health nurse
- local District Health Board and ask for the Public Health Service or a dietitian
- dietitian (in the Yellow Pages) or registered nutritionist
- marae-based health services and/or Māori health workers
- Pacific health workers.

On the Internet, look for these websites:

- Ministry of Health: www.health.govt.nz
- Vegetarian Society: www.vegetarian.org.nz
- HealthEd: www.healthed.govt.nz – see the “healthy eating” and “physical activity” sections
- National Heart Foundation: www.heartfoundation.org.nz
- Te Hotu Manawa Māori: www.tehotumanawa.org.nz
- Pacific Heartbeat Programme: www.pacificheart.org.nz
- 5+ a day: www.5aday.co.nz
- Sport NZ: www.sportnz.org.nz
- Ministry of Primary Industries Food Safety: www.foodsmart.govt.nz/food-safety

This booklet is not intended to be used for achieving or making a healthy body weight. Please refer to *Healthy Weight for Adults* (code HE1324) available from your health worker, your local public health service or from www.healthed.govt.nz.



New Zealand Government



This resource is available from www.healthed.govt.nz or the Authorised Provider at your local DHB.

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