

Eating and Activity Guidelines for New Zealand Adults

Topical Questions and Answers

This resource provides answers on some topical issues around eating (nutrition) and physical activity. The responses are based on the Ministry of Health's monitoring of international research. Any new research is considered alongside the existing body of evidence and best international population health advice.

Eating Statements questions and answers

Should carbohydrates be part of a healthy diet?

Yes, but some carbohydrates are much better for health than others.

Carbohydrates are one of the three major nutrient groups that provide energy (referred to as macronutrients). The other two groups are protein and fat. Although all three are present in most foods one of them tends to dominate in any given type of food.

Carbohydrates are important in the diet and form part of a healthy eating pattern. However, carbohydrates are not nutritionally equal. High-quality, carbohydrate-rich foods include whole grain foods, legumes (such as lentils, chickpeas and baked beans), vegetables and fruit. These foods provide energy (kilojoules), dietary fibre, vitamins and minerals and phytonutrients (beneficial chemicals found in plants).

Poor-quality carbohydrates provide energy but few other nutrients. These foods include sugar and sugar-rich foods and drinks, and refined grains like white breads. In addition, many foods combine sugar, refined grains, fat and salt such as some highly processed breakfast cereals, cakes, biscuits, crackers and many snack foods. These foods are low in nutrients but high in energy and should be eaten only occasionally.

Are foods high in saturated fat, such as butter, now recommended as part of a healthy diet?

No, the evidence still points to the benefits of having a low saturated-fat intake.

Foods high in saturated fat include butter, cream, cheese and the fat from meat as well as coconut oil and palm oil. The link between saturated fat consumption, blood cholesterol levels and heart disease is well established, with evidence building over the past 60 years. Recent comments, highlighted in the media, have promoted high saturated-fat diets. These comments oppose widely held nutritional understanding of a healthy diet.

The current body of evidence supports replacing saturated fats with polyunsaturated fats, to reduce the risk of heart disease and stroke. In practice, this means using unsaturated fats such as plant-based oils and spreads instead of butter if needed for cooking and spreading. The few recent studies that endorse high saturated-fat diets are not sufficient to refute the existing body of evidence.

Is a low-‘carb’ (carbohydrate), high-fat diet the best way to lose weight?

No, evidence shows it’s the total energy (kilojoules) in a diet that’s important, not what type of foods that energy comes from.

Low-carb, high-fat diets are sometimes promoted as a better way of losing weight than diets that contain more moderate and balanced amounts of carbohydrate and fat.

However, it is not the proportions of macronutrients (carbohydrate, fat and proteins) that affect weight loss but the total energy in the diet. While people can lose weight with some low-carb, high-fat diets, this happens with other energy-controlled eating plans as well. Importantly, there is no evidence of the long-term benefits or safety of such diets. Based on all the current evidence, the Ministry of Health does not recommend low-carb, high-fat diets for weight loss.

Is the ‘paleo’ diet healthy?

The ‘paleo’ has some healthy features, but overall, based on current knowledge of healthy eating, no, it is not a healthy eating plan.

The ‘paleo’ or palaeolithic diet is an eating pattern claimed to be based on the diet of early ‘hunter-gatherer’ humans from the Palaeolithic period (around 2.5 million to 10,000 years BC). The diet consists of vegetables, some fruit, nuts, naturally occurring fats and oils, meat and seafood. It excludes dairy products, grains, legumes, processed oils, sugar, salt, alcohol and coffee. The premise for the diet is that modern humans remain genetically adapted to the eating patterns of their ancestors, and so this continues to be the optimal way to eat for health.

Although the paleo diet includes many healthy foods, it is also linked to a number of issues. In particular, copying a ‘true’ Palaeolithic diet is difficult as very little is known about the diet of these early people and many of the specific plant and animal foods around during the Palaeolithic period no longer exist. Also, significantly, the diet excludes entire food groups that are important to healthy eating patterns. Examples are grains, legumes and dairy products.

Are intermittent fasting diets like the '5-2' diet good for weight loss?

Intermittent fasting diets might work for some people, but they can have negative side effects. Little is known about their long-term impact on weight or health.

The little research available on intermittent fasting diets in humans has shown people can lose weight following this eating plan. Perhaps the best-known version of intermittent fasting is the 5-2 diet, where a person has five days of 'normal' eating and two days of a much lower energy intake (approximately 2100–2500 kilojoules per day, which is 25 percent of requirements). Over time, it reduces total energy (kilojoules) intake, which is the likely cause of the weight loss.

At present, no studies have shown how sustainable this eating pattern is or how it impacts on long-term weight or health outcomes. Possible immediate side effects from the 'fasting days' are extreme hunger, low energy levels, light-headedness and poor mental functioning. The quality of the diet on 'normal' days will also impact on health outcomes in the long term.

The 5-2 diet is **not** recommended for people with insulin dependent diabetes.

Should people avoid fruit because of its sugar content?

No, fruit is an important part of any varied, healthy eating pattern.

Recommendations to decrease sugar intake refer specifically to 'free sugars'. Free sugars include all sugar added to foods as well as sugars that are naturally present in fruit juice, syrups and honey. This recommendation does not apply to the sugar that is found naturally in the structure of foods such as whole fruit and dairy products.

As well as sugar, whole fruit provide a range of nutrients including dietary fibre and phytonutrients (beneficial chemicals found in plants). Fruit along with a range of other foods is part of a healthy eating pattern.

Do people need to take dietary supplements?

No, most people do not need to take dietary supplements.

Good nutrition depends on making good food choices. Generally, following the Eating Statements, including eating a variety of foods from the four food groups in the recommended amounts, will provide the nutrients people need to be healthy.

Getting nutrients from foods rather than supplements is considered best. In this way, people can get the nutrients they need without risking excessive intakes of them. Foods, particularly plant foods, provide a range of health-promoting nutrients, beyond vitamins and minerals. Some of these are known, such as flavonoids and some antioxidants, while others remain unidentified. Research shows positive health outcomes result from healthy dietary patterns, rather than individual nutrients.

In some situations, supplementation is needed. For example, individuals need: folic acid tablets for at least four weeks before conception and during the first 12 weeks of pregnancy; iodine tablets during pregnancy and breastfeeding; iron supplementation if they have iron deficiency anaemia; and vitamin D if they are considered at risk of not getting enough of this nutrient via skin exposure to the sun's rays. People in any of these situations should discuss supplementation with their doctor.

Are aspartame and other 'intense (artificial) sweeteners' safe?

Intense (artificial) sweeteners approved for use in New Zealand are considered safe.

Current evidence shows that aspartame and the other intense sweeteners (also known as artificial sweeteners) approved for use in New Zealand are safe to use for most people. Each sweetener has been tested for safety and each has an acceptable daily intake (ADI) set for it. Intake in New Zealand is well below the ADI, even among most high users.

If consumed, foods and drinks containing intense sweeteners should be consumed in moderation. Intense sweeteners can play a useful role within a healthy diet, but the overall recommendation is to choose fewer sweet foods and drinks to encourage people to get used to the taste of less sweetness.

For more information, see the Ministry for Primary Industries' food safety website: www.foodsmart.govt.nz

What is stevia?

Stevia, or steviol glycosides, is one of the intense sweeteners approved for use in the New Zealand food supply. It has gained some popularity as it is considered a natural sweetener. It is extracted from the leaves of the *Stevia rebaudiana* Bertoni plant – from the sunflower family. Stevia has no energy (kilojoules) and does not increase blood glucose levels. It is around 300 times as sweet as sugar. As an approved intense sweetener, stevia is safe for use.

Activity Statements questions and answers

Are there any recommendations for screen time for adults?

The Ministry of Health is currently reviewing the evidence on screen time for adults. While there is no specific guideline on screen time for adults in the *Eating and Activity Guidelines for New Zealand Adults*, it is important to limit prolonged sitting/sedentary behaviour, including screen time.

Many of us spend large parts of our day in front of screens. This usually means that we are sitting for long periods. Reducing screen time, especially during our leisure time, and replacing it with other activities/small movement breaks can help our health. This advice is appropriate for all adults, regardless of how physically active they are to start with.

What are the benefits of aerobic vs anaerobic and resistance activities?

Aerobic activities are good for the lungs and heart. Anaerobic activities are good for improving strength, speed, power and muscle mass. Resistance activities are good for maintaining or increasing muscle tone and strength, power and endurance.

Aerobic activities¹

Aerobic activities are physical activities that require oxygen for the muscles to generate the energy to perform, sometimes for long periods. They vary in intensity from light (such as housework, standing, exergaming and yoga) to moderate (eg, brisk walking, swimming, cycling at less than 16 km/h and playing actively with the children) to vigorous (eg, running, cycling at more than 16 km/h, most competitive field sports such as rugby, league and netball and endurance events like marathons and triathlons such as Iron Māori).

Regular aerobic activities:

- improve the function of the heart, lungs and muscles to make it easier to do activities of daily living (eg, vacuuming, washing the car and shopping)
- improve mental health, sleep, overall wellbeing and quality of life
- increase levels of social interaction if the physical activity is done with others
- can help a person maintain a healthy weight and prevent weight gain (if combined with healthy eating)

Aerobic activity may not be the most effective way to lose weight (unless done for at least one hour per day and combined with healthy eating).

Anaerobic activities²

Anaerobic activities involve contracting/relaxing muscles at very high-intensity (90% or more of a person's maximum heart rate) for up to approximately two minutes. Anaerobic activities may include sprinting, weightlifting and other resistance activities.

Some of the endurance activities mentioned in aerobic activities may require periods of anaerobic activity – for example, during a sprint finish or sports game.

Resistance activities³

Any physical activity that provides resistance to the muscles will maintain or increase muscle strength, power, endurance and (lean) mass. Resistance activities may help a person to increase the tone of their muscles. They may also help a person maintain a healthy weight or lose weight (if combined with healthy eating).

There are plenty of ways to strengthen muscles. For example:

- do push-ups, sit-ups and squats at home
- do weightlifting or other gym-based resistance activities
- carry children or heavy bags of shopping
- try waka ama/oe waka, rock climbing, aqua aerobics/aqua jogging, walking up hills, climbing stairs or digging in the garden.

1 **Aerobic activities** involve continuous and rhythmic movement of the major muscles for a sustained period (10 minutes or more). They require the heart to pump oxygenated blood round the body to the muscles.

2 **Anaerobic activities** are short, fast bursts of high-intensity activity that does not require oxygen for the muscles to create energy. A byproduct of anaerobic activity is the build-up of lactic acid in the muscles.

3 **Resistance activities** involve creating resistance muscle movement in order to help increase skeletal muscle strength, power, endurance and muscle mass.

What are exergames and are they recommended?

Exergames are computer games with a physically active component. Exergames can be a fun way to reduce sitting time. If done at a moderate-intensity, they may contribute to the recommendation of ‘at least 2½ hours of moderate or 1¼ hours of vigorous physical activity spread throughout the week’.

Over the past few decades, people have been reducing their time being physically active while computer games have become more popular and widely used. For the majority of these games, players sit down for long periods to play them. However, more recently games manufacturers have started to produce and market ‘exergames’.

Exergames are computer games with a physically active component such as dance games, fitness games, tennis, ten pin bowling, baseball and football.

Exergames are usually light- to moderate-intensity⁴ (but this varies depending on the game), so may go towards meeting the recommendation that ‘doing some physical activity is better than doing none’. In addition, if they are done at a moderate-intensity, they may contribute to meeting the recommendation of ‘at least 2½ hours of moderate or 1¼ hours of vigorous physical activity spread throughout the week’.

Exergames:

- can be a fun way to reduce sitting time
- can increase social interaction if played with others
- are time efficient as they can be done in the home
- are best when they involve moving both the upper and lower body
- should ideally replace sitting rather than other time being physically active.

What about activities for people who don't like sport or gyms?

Many activities are available for people who do not like sport or gyms. What is important is to choose enjoyable activities, as these are easier to stick to.

Activity guides on **walking**, **cycling** and **water activities** are available from the Ministry of Health's website www.health.govt.nz in English and te reo Māori.

Some of the best activities available do not require playing sport or going to a gym. Walking, cycling and swimming are all low or no cost, can be enjoyed outside, and are popular activities among New Zealanders, as the Sport NZ 2013/14 Active New Zealand Survey showed. Some of their benefits are listed below.

Walking

- is ideal for people of all ages and fitness levels, even those who have been inactive. It can be as easy or as hard as you want it to be – but a brisk pace for 10 minutes or more produces more benefits
- offers multiple health benefits and is relatively easy on the muscles and joints – it also carries a low risk of injury
- is a great activity when it is done as an individual but can be even better when done in groups. Those who like to socialise can walk with friends or whānau or join a local walking group.

⁴ Kari T. 2014. Can exergaming promote physical fitness and physical activity? *International Journal of Gaming and Computer Mediated Simulations* 6(4): 59–77.

Cycling

- is ideal for people of all ages and fitness levels, even those who have been inactive
- is low impact for the joints and muscles
- benefits your health and the environment
- is a great family pastime
- is the quickest form of transport for journeys of less than 5 km.

New Zealand has many fantastic places to cycle. **Ngā Haerenga (the New Zealand Cycle Trail)** is a network of (mainly off-road) cycle trails, which are spread throughout the country and cater for a range of riding abilities. Ngā Haerenga includes 'The Great Rides', which incorporate some of the most spectacular scenery in New Zealand.

Swimming and water activities

Water is a great place to be physically active. Swimming and other water activities:

- are soothing and therapeutic
- are low impact – joints and muscles are under less stress when in water
- use nearly all the body's muscle groups (when using full swimming techniques)
- are excellent during pregnancy – as the water supports the weight of the baby
- are great for people with health conditions, such as osteoarthritis and obesity, as the water supports their weight.

Dancing

Dancing is an aerobic activity that can be good for overall health and fitness. It can be done at a range of intensities and is a good way to be active with others.

Dancing:

- is a popular way to get and stay fit
- can be good for overall health (as it increases the breathing and heart rate) regardless of how fit a person is to start with
- can be good for social interaction, which in turn can help reduce stress levels and increase psychological wellbeing
- can improve core strength, flexibility and coordination (but this will vary depending on the dance and intensity).

Best of all, dancing can be fun. People are more likely to do activities regularly when those activities are enjoyable. If a person doesn't want to join a dance class, there are plenty of other ways to dance, such as by dancing to music at home or dancing in a church or social group.

Is High-Intensity Intermittent Training (HIIT) good for you?

High-Intensity Intermittent [or Interval] Training involves short periods of high-intensity activity with a brief recovery period in between. HIIT activities can be time efficient and good for health.

HIIT can improve aerobic and anaerobic fitness, strength, power and speed. As well, HIIT can increase heart health and insulin sensitivity, and reduce blood pressure, cholesterol and abdominal fat.

HIIT can be undertaken for numerous activities individually, such as cycling, running, swimming or rowing, or for a combination of activities. It can be tailored to the needs and fitness levels of a variety of people.

People who have been inactive for a long time, are overweight or obese, have a low base fitness level (or do not currently do at least 2½ hours of moderate or 1¼ hours of vigorous physical activity per week), and/or have certain medical conditions may be more prone to adverse health effects or injury. If a person falls into one of these categories, they may wish to consult a doctor or physical activity specialist before doing higher-intensity activities.

Ideally, the extra time gained from doing HIIT should be filled with activity instead of sitting.

Are fitness boot camps good for increasing fitness quickly?

Boot camps can be a good way to increase fitness if the structure and level are correct for the individual and if safe practices are applied (such as building up to the appropriate level gradually).

Fitness boot camps are group-based exercise classes, designed to build strength, aerobic fitness and stamina and to reduce body fat. Many (but not all) are conducted outdoors. They are aimed at people who may not otherwise go to a gym, those who want to increase their fitness in a short period of time and/or those who require support to achieve their goals.

Boot camps ordinarily run for approximately four to six weeks. Participants are generally fitness tested at the start of the boot camp, then grouped with other people of a similar fitness level. Each session will usually start with a stretch and warm-up, followed by some running and other activities, increasing the intensity throughout the session (including some HIIT activity). Usually it will involve some push-up/sit-up exercises and weight/body weight activities. Each session finishes with stretching and cool-down activities.

Caution should be taken that participants don't over exert or injure themselves, especially at the start of a boot camp. As when they are increasing physical activity in any other way, those who have medical conditions and who have a low physical fitness level or who have been physically inactive for some time should consult a relevant health practitioner or physical activity specialist before undertaking a boot camp.

Are group activity classes beneficial?

Regular activity classes can be a good way for people to be active, especially if they enjoy it.

Gyms, leisure centres and community centres may offer group activity classes run by a fitness instructor.

Unlike boot camps, these are usually run throughout the year on a regular basis (for example, once or twice per week). Group activity classes (of which there are many examples) can be a good way for adults to get moderate to vigorous activity into their day and can motivate people to be active if they enjoy the class. The regularity of a scheduled class can also motivate people to get up and be active. However, activity classes should not replace regular movement throughout the day.

As with any other physical activity, people who have a low physical fitness level or who have been physically inactive for some time should consult a relevant health practitioner or physical activity specialist before joining a group activity class.