

New serving size advice

This resource provides information on the updated serving size advice that is included in the updated *Eating and Activity Guidelines for New Zealand Adults* (Ministry of Health 2020).

Serving size advice

Serving size information is a tool for educating the public on 'how much' to eat as part of healthy eating practices. This advice includes recommendations for the daily number of servings from each of the food groups and approximate serving size amounts. Providing serving size advice helps ensure people get all the nutrients they need.

Health practitioners can use the serving size recommendations, alongside recommendations about the types of food to eat, to educate people on:

- healthy eating patterns
- optimal nutrition
- achieving and/or maintaining a healthy weight.

Background to updating the New Zealand serving size advice

Previous serving size advice was produced in 1991. This advice was based on commonly eaten foods in amounts usually eaten by New Zealanders during the late eighties. Since then, New Zealand's food environment, population and eating patterns have changed. Concurrently, there have been significant increases in the prevalence of overweight and obesity and non-communicable diseases.

The Ministry of Health (the Ministry) has updated the previous serving size advice to reflect current nutrient requirements for New Zealanders.

How the serving size advice was updated

In 2013, the National Health and Medical Research Council updated the *Australian Guide to Healthy Eating* (NHMRC 2013). The revision was informed by a modelling system that translated the Nutrient Reference Values for Australia and New Zealand (NHMRC 2006) into dietary models. These models describe the amounts of various foods needed to meet the estimated nutrient requirements of people of different ages, genders, body size and activity levels, using the best available scientific evidence.

Along with energy, ten key nutrients are included in the models. These are protein, thiamine, vitamin A (as retinol equivalents), vitamin C, folate, calcium, iodine, iron, magnesium and zinc. The diets are modelled to provide as close to 100 percent of the recommended dietary intakes of these nutrients as feasible and to provide the estimated energy requirements of the smallest and very sedentary category for each age and gender group. Those who are bigger or more active may need to eat additional servings.

The Ministry decided to adopt the Australian serving size advice because both countries use the same nutrient recommendations and have a similar food supply. In 2019, the Ministry consulted with key stakeholders on the proposed adoption of the evidence-based Australian serving size advice for New Zealand.

What's changed?

Key changes to our current advice include:

- using the same age groups as the Nutrient Reference Values (NHMRC 2006)
- a range of recommended numbers of servings for each age and gender, including additional servings for pregnant and breastfeeding women
- changes to the serving size amount for many foods.

Key changes to advice for each food group



Vegetables

Increasing the recommended number of servings of vegetables from at least three to at least five servings of vegetables each day and decreasing the serving size for starchy vegetables.

Consistent evidence suggests that vegetable intake is inversely associated with risk of developing non-communicable diseases, such as heart disease, stroke and some cancers. Consuming more vegetables each day could have major health benefits, including a reduced risk of weight gain.

The evidence indicates that it is particularly important to include non-starchy vegetables in the diet. New Zealanders are encouraged to focus on increasing the number of servings of non-starchy vegetables, rather than eating more starchy vegetables.



Grain foods, mostly whole grain and those naturally high in fibre

The recommended number of servings of grain foods remains the same for most adults. For older women (51–70 years), the recommended number of servings has decreased from six to four servings of grain foods each day.

Decreasing the serving size of some foods, such as bread rolls (1/2 a bread roll), cooked rice, pasta and other cooked grains (1/2 a cup), and muesli (1/4 cup).

Older women require fewer servings from some food groups, including grain foods, due to reduced energy expenditure and physical activity (generally). Pregnant and breastfeeding women may require additional servings of grain foods to help meet increased requirements. It is important that New Zealanders choose good quality grain foods, such as those made from whole grains and naturally high in fibre.

Key changes to advice for each food group



Milk and milk products, mostly low and reduced fat

Slightly increasing the recommended number of servings of milk and milk products for most adults. For older women (51–70 years), the recommended number of servings has increased from two to four servings per day.

Increased consumption of milk and milk products is recommended for women over the age of 50 to help maintain bone density and reduce the risk of osteoporosis after menopause.



Legumes, nuts, seeds, fish and other seafood, eggs, poultry and/or red meat with the fat removed

Slightly increasing the recommended number of servings for most age groups as well as changing the serving size for some foods.

The serving sizes for cooked legumes (1 cup) and eggs (2 eggs) have increased, and the serving size for cooked lean meat (65g) has decreased.

During pregnancy, three to four servings a day are recommended to provide additional iron and zinc to help meet increased requirements.

Serving size advice for other age groups

The Ministry has adopted the Australian serving size advice for all ages and stages, as contained in the *Australian Dietary Guidelines*. Serving size advice is available for different ages, life stages and gender from one year of age. For further information, go to the Australian Dietary Guidelines website: www.eatforhealth.gov.au

Over time, the Ministry will update its health education resources for all population groups to reflect the new updated serving size advice.

→ See the serving size advice for adults on page 5

→ See the serving size advice for children and young people on page 8

Recommended number of servings per day from each of the food groups for adults*

		Vegetables 	Fruit 	Grain foods 	Legumes, nuts, seeds, fish and other seafood, eggs, poultry or red meat with fat removed 	Milk and milk products 	Approximate number of additional servings from the food groups**
MEN	19-50	●●●●●●●●	●●	●●●●●●●●	●●●	●●●	0-3
	51-70	●●●●●●●●	●●	●●●●●●●●	●●●	●●●	0-2.5
	70+	●●●●●●●●	●●	●●●●●●●●	●●●	●●●●	0-2.5
WOMEN	19-50	●●●●●●●●	●●	●●●●●●●●	●●●	●●●	0-2.5
	51-70	●●●●●●●●	●●	●●●●●●	●●	●●●●●	0-2.5
	70+	●●●●●●●●	●●	●●●●	●●	●●●●●	0-2
PREGNANT		●●●●●●●●	●●	●●●●●●●● ●●●●●●●●	●●●	●●●	0-2.5
LACTATING		●●●●●●●● ●●●●	●●	●●●●●●●● ●●●●●●●●	●●●	●●●	0-2.5

● one serving ◐ half serving

* Includes an allowance for unsaturated spreads or oils, nuts or seeds (4 servings [28-40g] per day for men less than 70 years of age; 2 servings [14-20g] per day for women and older men)

** Additional servings may be needed for taller or more active men and women

Source: NHMRC (2013)

Additional servings from the four food groups

To meet additional energy needs, adults who are taller or more active and not overweight may need extra servings from the four food groups, unsaturated spreads and oils, or other foods.

An allowance for unsaturated spreads and oils for cooking, or nuts and seeds can be included in the following quantities:

- 28-40g per day for men aged 19-69 years
- 14-20g per day for women and older men
- 14-20g per day for pregnant and breastfeeding women.

Serving size examples



Vegetables

A standard serving of vegetables is about 75 g (100–350 kJ), which is about the same as:

- ½ cup cooked vegetables (eg, pūhā, watercress, silverbeet, kamokamo (squash), carrot, broccoli, bok choy, cabbage or taro leaves)
- ½ cup canned vegetables (eg, beetroot, tomato, sweet corn)
- 1 cup green leafy or raw salad vegetables
- ½ medium potato or or similar sized piece of kūmara, taewa (Māori potato), yam (Pacific or NZ), taro, cassava, or green banana (technically a fruit)
- 1 medium tomato.



Grain foods, mostly wholegrain and those naturally high in fibre

A standard serving (500 kJ) is about the same as:

- 1 slice (40 g) wholegrain bread
- ½ medium (40 g) wholegrain roll or flat bread
- ½ cup (75–120 g) cooked rice, pasta, noodles, barley, buckwheat, semolina, polenta, bulgur or quinoa
- ½ cup (120 g) cooked porridge
- ¼ cup (30 g) muesli
- 2 breakfast wheat biscuits
- 2/3 cup cereal flakes (wholegrain where possible)
- 3 (35 g) crispbreads or crackers (wholegrain where possible).



Fruit

A standard serving of fruit is about 150 g (350 kJ), which is about the same as:

- 1 medium apple, banana, orange or pear
- 2 small apricots, kiwifruit or plums
- 1 cup diced or canned fruit (drained and with no added sugar), eg, pineapple, papaya
- 1 cup frozen fruit, eg, mango, berries.



Milk and milk products, mostly low and reduced fat

A standard serving (500–600 kJ) is about the same as:

- 1 cup (250 ml) low or reduced fat fresh, UHT long life, reconstituted powdered milk or buttermilk
- 2 slices (40 g) or a 4 x 3 x 2 cm piece of cheese such as Edam
- ¾ cup (200 g) low- or reduced-fat yoghurt
- 1 cup (250 ml) calcium-fortified plant-based milk alternatives (eg, soy, rice, almond, oat milk) (with at least 100 g of added calcium per 100 ml).



Legumes, nuts, seeds, fish and other seafood, eggs, poultry and/or red meat with fat removed

A standard serving (500–600 kJ) is about the same as:

- 1 cup (150 g) cooked or canned beans, lentils chickpeas, or split peas (preferably with no added salt)
- 170 g tofu
- 30 g nuts, seeds, peanut or almond butter or tahini or other nut or seed paste (no added salt)
- 100 g cooked fish fillet (about 115 g raw) or one small can of fish
- 2 large (2 x 60 g = 120 g) eggs
- 80 g cooked lean chicken (100 g raw)
- 65 g cooked lean meat such as beef, lamb, pork, veal (90–100 g raw) – no more than 500 g cooked (700–750 g) red meat each week.

The examples provided are suitable for most adults.

Note that some foods may not be suitable during pregnancy.



For more information, see the New Zealand Food Safety website:
www.mpi.govt.nz/food-safety/food-safety-for-consumers/food-and-pregnancy

Recommended number of servings per day from each of the food groups for children and young people (1–18 years)*

		Vegetables 	Fruit 	Grain foods 	Legumes, nuts, seeds, fish and other seafood, eggs, poultry or red meat with fat removed 	Milk and milk products 	Approximate number of additional servings from the food groups***
TODDLERS**	1–2	2–3				1–1.5	
BOYS	2–3						0–1
	4–8						0–2.5
	9–11						0–3
	12–13						0–3
	14–18						0–5
GIRLS	2–3						0–1
	4–8						0–1
	9–11						0–3
	12–13						0–2.5
	14–18						0–2.5
PREGNANT							0–3
LACTATING							0–3

● one serving ◐ half serving

* Includes an allowance for unsaturated spreads or oils, nuts or seeds (½ serving [4.5g] per day for children 2–3 years of age, 1 serving [7–10g] per day for children 3–12 years of age; 1½ servings [11–15g] per day for children 12–13 years, and 2 servings [14–20g] per day for adolescents 14–18 years of age and for pregnant and breastfeeding girls)

** An allowance for unsaturated spreads or oils or nut/seed paste of 1 serving (7–10g) per day is included. Whole nuts and seeds are not recommended for children of this age because of the potential choking risk

*** Additional servings may be needed by children and adolescents who are taller, more active or in the higher end of a particular age group, to meet additional energy requirements

Source: NHMRC (2013)



References

Ministry of Health. 2020. *Eating and Activity Guidelines for New Zealand Adults: Updated 2020*. Wellington: Ministry of Health.

NHMRC. 2006. *Nutrient Reference Values for Australia and New Zealand including Recommended Dietary Intakes*. Canberra: National Health and Medical Research Council; Wellington: Ministry of Health.

NHMRC. 2013. *Australian Dietary Guidelines*. Canberra: National Health and Medical Research Council. URL: www.eatforhealth.gov.au/sites/default/files/files/the_guidelines/n55_australian_dietary_guidelines.pdf