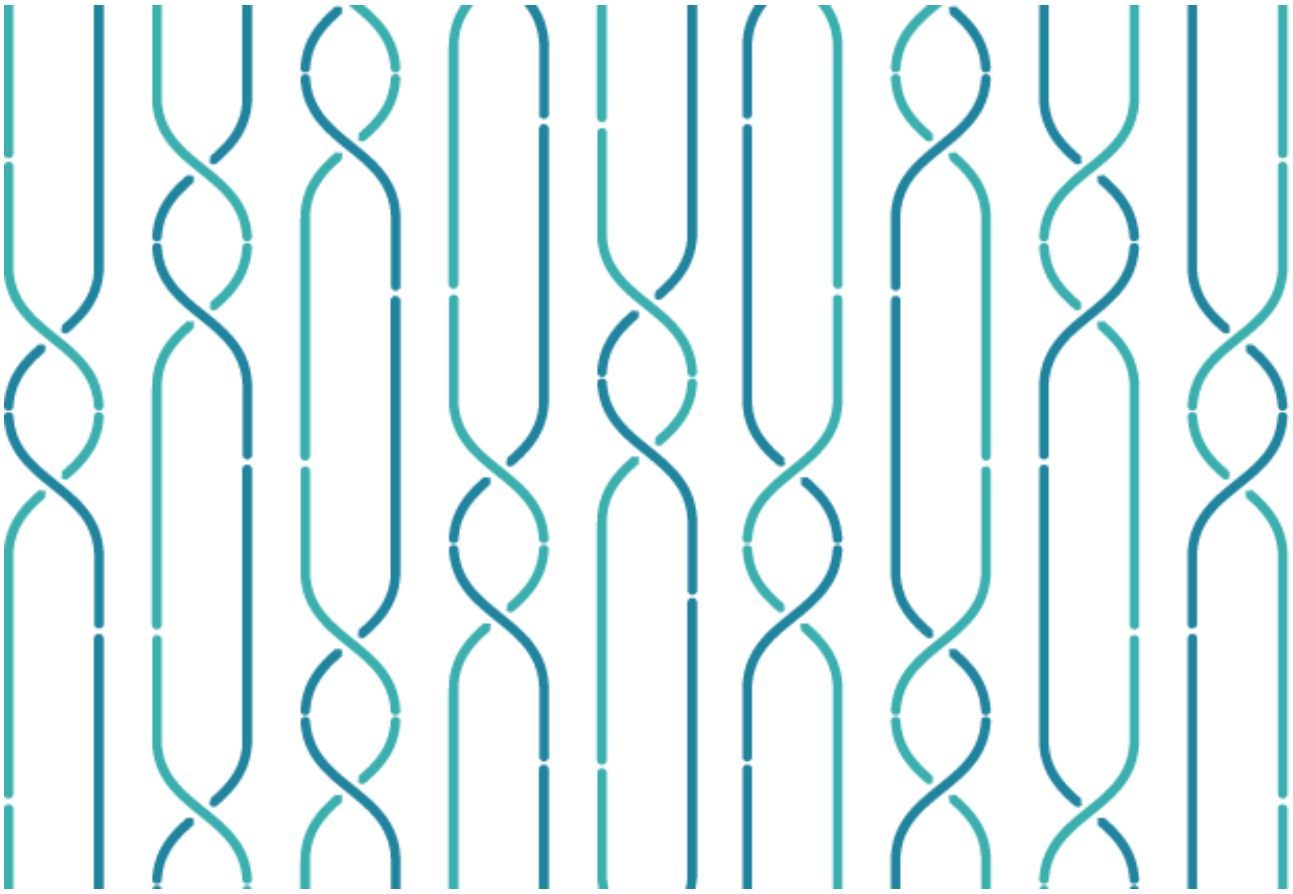
Public Health Agency
Te Pou Hauora Tūmatanui

MINISTRY OF HEALTH
MANATŪ HAUORA

CHILDREN AND YOUNG PEOPLE'S DIETARY GUIDELINES (3–17 YEARS)

Consultation document with draft recommendations

August 2025



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MINISTRY OF
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MANATŪ HAUORA


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Contents

Introduction

The Ministry of Health is currently reviewing its dietary guidelines for children and young people to ensure its recommendations are based on the best available evidence.

This survey asks you to consider the draft dietary recommendations for children and young people and indicate whether you support, partially support or disagree with each recommendation. There are five key recommendations, plus supplementary recommendations which add further detail. You do not need to comment on every recommendation; please skip topics not in your area of expertise.

We have developed the draft recommendations with advice from the Ministry of Health's Children and Young People's Dietary Guidelines Technical Advisory Group. They are based on international evidence and guidelines from other countries. Within this document, we have supplied a brief explanation of the key evidence that has informed each recommendation. The Ministry's dietary indicators for New Zealand children (Ministry of Health 2022) have also informed our recommendations and will be included in the final guidelines.

The primary audience for the dietary guidelines is health practitioners, health promotors and policy makers. The guidelines support the provision of evidence-based nutrition advice and inform nutrition policy to promote healthy eating for children and young people. Practical interpretations of the recommendations for public health messaging are not part of this consultation. Please note that these guidelines do not update current advice on food serving size, physical activity and sleep recommendations but that the final guidelines will include this advice.

This consultation will inform further development of the draft recommendations and the evidence included in the final guidelines.

We expect that the survey will take approximately 20–30 minutes.

Introductory questions

Q1.1 Are you responding on behalf of …

- ☐ yourself as an individual?
- ☐ your organisation? (Please name: _____)
  Skip to Q1.3.

Q1. 2 (Please skip if you are responding on behalf of an organisation) We would like to ensure we collect feedback from a broad range of New Zealanders. To this end, could you please indicate which ethnic group or groups you identify with:

- ☐ European
- ☐ Māori
- ☐ Pacific
- ☐ Asian
- ☐ Middle Eastern/Latin American/African
- ☐ Other: please specify _____

Q1. 3 Which of these roles best describes your occupation/profession (or the occupations/professions of those that have contributed to this submission)? (Multiple responses are welcome):

- ☐ Dietitian
- ☐ Registered nutritionist
- ☐ Nurse
- ☐ Medical doctor
- ☐ Other clinician
- ☐ Public health practitioner
- ☐ Health promoter
- ☐ Academic / researcher
- ☐ Policy advisor / analyst
- ☐ Food sector / industry professional
- ☐ Teacher / educator / workforce trainer
- ☐ Other: please specify _____

Recommendation 1

Eat a variety of nutritious foods from each of the four food groups every day, including:

- plenty of vegetables and fruits, including different types and colours
- grain foods, mostly whole-grain and those naturally high in fibre (like oats, brown rice or wholegrain breads)
- milk and milk products, or suitable alternatives, mostly unsweetened
- legumes (like beans, peas, lentils and tofu), nuts, seeds, fish and other seafood, eggs, poultry or red meat with the fat removed.

Reasons for the recommendations

Diet and health across the life course

International reviews of longitudinal studies of diet over the life course have found a dietary pattern in childhood and adolescence that is:

- higher in vegetables, fruit, legumes, nuts, whole grains, fish/seafood and dairy (low-fat, unsweetened) or alternatives and
- lower in processed meats, sugar-sweetened beverages and sugar-sweetened or savoury/salted foods

is associated with favourable growth and development, lower adiposity and lower risk of obesity later in childhood and early adulthood (2025 Dietary Guidelines Advisory Committee 2024; National Health and Medical Research Council 2013). This dietary pattern in childhood and adolescence is also associated with mental wellbeing (Brennan et al 2014), lower systolic and diastolic blood pressure and lower triglycerides later in life (2025 Dietary Guidelines Advisory Committee 2024) , and has fewer climate impacts (Blomhoff et al 2023).

Vegetables and fruits

Eating plenty of vegetables and fruits in childhood is linked with adequate fibre intake (World Health Organization (WHO) 2023), controlled blood pressure (WHO 2012) and a life-long higher consumption of vegetables and fruits. High consumption of vegetables and fruit in adulthood lowers the risk of several cancers, cardiovascular disease and all-cause mortality (World Cancer Research Fund and American Institute for Cancer Research 2018; Murray et al 2020).

Eating a variety of vegetables and fruits that are different types and colours ensures that a range of micronutrients (vitamins and minerals) are consumed. It can be challenging to access and afford a wide range of fresh fruit and vegetables year-round in New Zealand, but frozen and canned fruits and vegetables (in water with no salt or sugar added) are just as nutritious. Seasonal and New Zealand-grown fruit and

vegetables are often cheaper and taste better, and they are best for the environment (Moore et al 2019).

Grain foods and fibre

Better health outcomes are achieved when a person's carbohydrate intake primarily comes from whole grains, vegetables, fruits and legumes (WHO 2023a; Stanaway et al 2022). These foods contain dietary fibre, which is important in childhood to avoid constipation, improve immunity and lower the risk of developing gastrointestinal disorders, cardiovascular disease and type 2 diabetes later in life (Blomhoff et al 2023; Korczak et al 2017). There are currently no accepted standard recommendations for how much dietary fibre children should consume, but we know that intake should gradually increase as children age, to support healthy development and establish long-term eating patterns. Too much fibre too quickly can cause digestive issues like gas or bloating, interfere with the absorption of essential nutrients and limit appetite. Adequate water intake and a gradual introduction of high-fibre foods is helpful when increasing fibre intake.

Milk and milk products and alternatives for calcium

Milk and dairy products like yoghurt and cheese made from the milk of cows, sheep or goats are a good source of calcium and many other essential nutrients, such as protein, iodine, riboflavin and vitamin B12 (Holven and Sonestedt 2023). Calcium is an important mineral for growing strong bones and teeth and is vital for heart functioning and blood clotting.

A moderate consumption of dairy across the life course has been found to protect against colorectal cancer (due to the calcium dairy contains) (World Cancer Research Fund and American Institute for Cancer Research 2018). Eating fermented and low-fat dairy products, like yoghurt and kefir, has also been associated with lower cardiometabolic risk factors such as total and LDL cholesterol (Holven and Sonestedt 2023).

Some children and young people in Aotearoa New Zealand are lactose intolerant, have a dairy allergy or choose not to consume milk or dairy products. These children and young people should consume a suitable calcium-rich alternative daily. Foods high in calcium are legumes (such as beans, peas and lentils), tofu, dark green vegetables (such as kale, broccoli and bok choy) and some fish, particularly when they contain bones able to be consumed (such as sardines and canned salmon) (Muleya et al 2024). Soy products (fortified with calcium carbonate) are higher in protein and energy than other plant-based products, so soy products are a suitable dairy alternative for children and young people.

Protein foods

Foods containing protein are important to support growth in childhood and adolescence. Vegetarian diets can meet a child or young person's nutritional needs if they include a variety of plant foods and are able to meet the child's or young person's energy needs (2025 Dietary Guidelines Advisory Committee 2024; National Health and

Medical Research Council 2013; National Institute for Health and Welfare in Finland 2019; Willett et al 2019; US Department of Agriculture and US Department of Health and Human Services 2020). A mix of different protein foods (eg, beans, lentils, chickpeas, peas, soy, nuts, seeds, egg, dairy, poultry or lean meat) each day is nutritionally desirable in that it provides a range of important amino acids (Blomhoff et al 2023; Willett et al 2019). The protein intake, particularly from dairy, of young children living in most high-income countries is usually high, which may contribute to an increased risk of obesity and earlier puberty (Hörnell et al 2023; Garcia-Iborra et al 2023). Total protein of around 15–20% of energy intake is recommended for children and adolescents (Hörnell et al 2023).

Legumes and nuts

Legumes and pulses (like beans, peas, lentils and tofu) are a great source of fibre, protein, iron, zinc, magnesium and potassium, while being low in saturated fatty acids. Regularly eating legumes and pulses lowers the risk of cancers (including gastric, colorectal, breast and lung cancer), cardiovascular disease and type 2 diabetes later in life, as well as all-cause mortality (Blomhoff et al 2023). Legumes are a useful and often cheaper substitute or complement to animal proteins in the diet.

Nuts and seeds (including peanut butter and other nut and seed butters) have high nutrient density and are a good source of energy, unsaturated fatty acids, protein, fibre and micronutrients. There is an inverse relationship between body size and consumption of vegetables, pulses and nuts in adolescents (Wall et al 2018). Regularly eating plain nuts reduces the risk of cardiovascular disease later in life (Blomhoff et al 2023; Willett et al 2019).

Eggs

Eggs are a nutrient-rich food, contributing all nutrients essential to the diet except vitamin C. A moderate intake of eggs (around one a day) can be included as part of a healthy diet (Willett et al 2019; Heart Foundation 2016b; Virtanen and Larsson 2024). Previous concerns about the links between eggs and heart disease, diabetes or cancer have not been substantiated in research (Virtanen and Larsson 2024; Heart Foundation 2016a).

Fish and seafood

Fish and seafood are good sources of protein; minerals like iodine, selenium, zinc and vitamins A and D; and omega-3 fatty acids. Fresh fish, frozen and canned fish and seafood are all nutritionally beneficial.

Eating fish or seafood rich in omega-3 fatty acids, such as salmon, mackerel, kina or sardines, one to two times a week is associated with a lower risk of cardiovascular disease later in life, and reduces the risk of cognitive decline and all-cause mortality (Retterstøl and Rosqvist 2024). Note that several meta-analyses show no benefit of supplementary fish oils or omega-3 polyunsaturated fatty acids supplementation on heart health (Retterstøl and Rosqvist 2024) or cognition (Jiao et al 2014). Fish oil supplements are therefore not recommended.

Poultry

Chicken and other poultry like turkey and duck provide protein, selenium, thiamin, riboflavin, niacin, vitamin B6 and B12 and have a better fatty acid profile than red meats (lower saturated fatty acids and higher polyunsaturated fatty acids). (Meinilä and Virtanen 2024).

Red meat and iron

Red meat (beef, lamb, pork, venison and wild game) is a good source of protein, iron, zinc and several B vitamins, including B12. Red meat is high in saturated fat, and eating more than 350g a week of red meat in adulthood is associated with increased risk of colorectal cancer, breast cancer, ischemic heart disease and type 2 diabetes (World Cancer Research Fund and American Institute for Cancer Research 2018; Meinilä and Virtanen 2024; American Institute for Cancer Research and World Cancer Research Fund 2017). These adult health conditions develop slowly over the life course (Tohi et al 2022), and so it is best to keep red meat intake in childhood below the recommended levels for adults. If eating red meat, remove visible fat and/or drain off the fat once cooked, and keep portion sizes small (National Health and Medical Research Council 2013).

It is important to ensure that children and adolescents, particularly if they are menstruating, regularly eat some foods containing iron, as childhood and adolescence are associated with higher iron requirements than other life stages. Iron is an essential mineral that helps maintain strength and energy. There are two types: heme and non-heme iron. Heme iron is found in red meat, fish, mussels and poultry and is most easily absorbed by the body. Non-heme iron is found in plant-based foods, such as fruits, vegetables and nuts, and in smaller amounts in meat. Good plant sources of iron include tofu, beans, lentils, chickpeas, nuts and seeds, and dark green vegetables. Consuming foods rich in vitamin C (like tomatoes, capsicum, broccoli and citrus fruit) improves iron absorption from non-heme plant-based sources of iron. Heme sources of iron generally boost iron levels more than non-heme sources (Gibson 2025).

Vitamins and supplements

If a person consumes no animal products (that is, no eggs, dairy, fish, poultry or meat), they require a vitamin B12 supplement. B12 is important in the methylation pathway, in the formation of red blood cells and for nerve function. A B12 deficiency can lead to cognitive symptoms, low mood and low energy (Venkatramanan et al 2016). A general practitioner or dietitian can diagnose B12 and other vitamin or mineral deficiencies and advise if supplementation is required (Peddie et al 2023; Desmond et al 2024).
Vitamin D is also important in childhood and adolescence to optimise bone health and muscle function, and low levels of vitamin D are related to bone conditions such as rickets in young children. In New Zealand, it is difficult to consume enough foods that contain vitamin D (such as fatty fish and eggs) to reach an acceptable blood level of vitamin D (Ministry of Health 2012). However, a healthy person should be able to get all of their vitamin D requirements with sufficient exposure to UVB ultraviolet radiation from sunlight, even at times of the day when UV is low. UV exposure increases skin cancer risk, so sun exposure should be sun-smart (Ministry of Health 2012).

Supplementation of vitamin D may be required for children and young people with naturally very dark skin or when there is not enough UVB exposure (eg, for those who live in the South Island during winter) (Ministry of Health 2012).

In general, if children and young people are eating a varied diet based on the New Zealand dietary guidelines, dietary supplements (including vitamin C, high-dose multivitamins, whey protein and creatine powders) are not needed unless prescribed by a doctor or dietitian, as elevated levels of the nutrients such supplements contain can have long-term adverse health effects, and no benefits in taking these supplements have been found (Blomhoff et al 2023; Barretto et al 2024).

Q2.1 Do you …

☐ support Recommendation 1?

☐ partially support Recommendation 1? Please explain:

☐ not support Recommendation 1? Please explain:

☐ not wish to comment on this recommendation? Go to recommendation 2.

Q2.2 Do you have anything else to add on the topic of eating a variety of foods from the four food groups during childhood or adolescence?

Recommendation 2

Choose or prepare meals, snacks and drinks that:

- are mostly whole and less processed
- have little or no added sugar
- are low in salt (sodium); if using salt, choose iodised salt
- use unsaturated fats (like olive, canola, rice bran or vegetable oils) instead of saturated fats (like butter, cream, lard, palm oil, coconut cream or coconut oil).

Supplementary recommendation:

Limit processed meats, like luncheon, bacon, ham, corned beef, salami, nuggets and sausages.

Reasons for the recommendations

Mostly whole and less processed foods

Choosing whole or less processed foods is generally good for both your health and the planet (Food and Agriculture Organization of the United Nations and WHO 2019). Minimally processed foods (such as frozen whole fruits and vegetables or pressed oils) have been slightly altered so they can be more easily stored or prepared, but they retain most of their nutritional value. Some processing is important for food safety reasons (eg, the pasteurisation of milk), to extend shelf life (eg, fermentation) or to increase the nutrient content (eg, the addition of folic acid to bread and calcium carbonate and B12 to plant-based milk alternatives).

When children and young people eat mostly whole and less processed foods and drinks, they consume less sugar and salt. This is why this is recommended as a cornerstone of a healthy diet.

Replacing saturated fats with unsaturated fats

Fat in the diet is important for energy and growth in childhood and adolescence, but not all types of fat are beneficial for health. Replacing foods that are predominantly high in saturated fat (like butter, cream, coconut oil and palm oil, lard or beef fat) with foods containing poly- or mono-unsaturated fat (like olive and vegetable oils, margarine, nut butters or avocado) lowers serum LDL-cholesterol concentration and diastolic blood pressure in children and adolescents and decreases the risk of cardiovascular disease later in life (US Department of Agriculture and US Department of Health and Human Services 2020; Morenga and Montez 2017).

Internationally, there is consensus that industrially produced trans fats should be avoided (preferably not consumed at all) (Morenga and Montez 2017; WHO 2023b)

and saturated fats should be limited (2025 Dietary Guidelines Advisory Committee 2024; National Health and Medical Research Council 2013; Blomhoff et al 2023; Public Health England 2018).

Sweet and salty taste preference

Children are biologically primed to prefer sweet, salty and savoury tastes, and these preferences are often reinforced through associative learning when foods high in sugar and salt are used as rewards or celebration foods (Mennella and Bobowski 2015; Ventura and Worobey 2013). Adding too much salt, sugar and other sweeteners to food masks the natural flavour, provides no nutritional benefit and accustoms young children to these tastes. This can make it difficult for children to eat a healthy and varied diet (Liem 2017). Soy sauce, tomato sauce and mayonnaise also mask the natural flavours of food and can be high in sugar and/or salt, so it is recommended that they are used sparingly in early childhood.

Added sugar and sweeteners

Foods high in sugars, such as lollies, cakes, biscuits, sweetened yoghurts, muesli bars, chocolate and ice cream, can displace other more nutritious foods in the diet of young children. It is recommended that these foods are limited, to ensure adequate intakes of micronutrients and dietary fibre and to support a healthy dietary pattern throughout childhood and adolescence (Blomhoff et al 2023). Frequent consumption of foods high in added or free sugars is also associated with dental caries (Moores et al 2022), higher body weight (WHO 2015) and an increased risk of cardiovascular disease in adulthood (US Department of Agriculture and US Department of Health and Human Services 2020).

Some foods advertised as 'low sugar' contain natural or artificial (non-sugar) sweeteners, like stevia, sucralose, aspartame, Xylitol and Erythritol. All food additives, including sweeteners, available in foods and drinks sold in New Zealand are assessed to be safe by Food Standards Australia New Zealand. The WHO does not recommend non-sugar sweeteners for people of any ages (with the exception of people with diabetes), because there is no evidence that they help with achieving weight control or reducing the risk of non-communicable diseases (WHO 2023c), and because they are much sweeter than sugar so they can become preferred by children with a sweet food preference.

Foods high in salt

High salt (sodium) intake is associated with high blood pressure, and this increases with age, which can result in cardiovascular disease and stroke later in life (Jula 2024). It is important to limit the amount of sodium in the diet of children and young people to avoid a preference for salty foods. Longitudinal studies have shown that a low sodium intake in childhood is associated with lower blood pressure later in life (Jula 2024). The main sources of sodium in the diet of New Zealand children are white bread, sausages, ham, canned spaghetti, instant noodles, potato chips/crisps and takeaways (Fuavao et al 2023; Ministry of Health 2022).

Intake of processed meat like bacon, ham, luncheon, corned beef, salami, nuggets and sausages should be as low as possible due to the added salt, nitrates and high saturated fat those foods contain (National Health and Medical Research Council 2013). Processed meats are made from beef, pork, lamb or poultry and preserved by smoking, curing, salting or adding chemical preservatives. Processed meats are a contributor to dietary-related diseases like colorectal cancer (American Institute for Cancer Research, World Cancer Research Fund 2017) and cardiovascular disease in adults, and a high intake is associated with increased risk of premature death from any cause (World Cancer Research Fund and American Institute for Cancer Research 2018; Willett al 2019).

For more information on food additives and preservatives, see information on the Ministry for Primary Industries' website (Ministry for Primary Industries (nd)).

Q3.1 Do you …

☐ support Recommendation 2?

☐ partially support Recommendation 2? Please explain:

☐ not support Recommendation 2? Please explain:

☐ not wish to comment on this recommendation? Go to recommendation 3.

Q3.2 Do you …

☐ support the supplementary recommendation in Recommendation 2?

☐ partially support the supplementary recommendation? Please explain:

☐ not support the supplementary recommendation? Please explain:

Q3.3 Do you have anything else to add on the topic of limiting or reducing intake of some foods in childhood or adolescence?

Recommendation 3

Make water your first choice of drink.

Supplementary recommendations:

Plain milk is also a healthy choice.

Limit other drinks like fruit juice, cordial, flavoured milks, fizzy drinks (including low- or no-sugar options), sports drinks and flavoured waters.

Children under 13 years of age should not drink caffeinated drinks like tea, coffee and fizzy drinks that contain caffeine. If young people choose to consume caffeinated drinks, they should limit them to one or two cups per day. Energy drinks are not recommended.

To reduce health and injury risks, children and people under 18 years of age should not drink alcohol.

Reasons for the recommendations

Water

Water is the best choice of drink for hydration and an essential nutrient for normal physiological functions and health. Taumata Arowai is the water services regulator in New Zealand and is responsible for identifying and monitoring matters that affect the safety of drinking water.

New Zealand's water does not have naturally high levels of fluoride. Adding fluoride to community water supplies is a public health measure to help prevent tooth decay. A recent review of the evidence on the risks and benefits of community water fluoridation found ongoing clear benefits, in terms of the reduced incidence and severity of dental caries (particularly in areas of high socioeconomic deprivation), and no harm to health (Ministry of Health 2024b). About 60% of New Zealanders currently have access to fluoridated drinking water supplies (Environmental Health Intelligence New Zealand and Massey University 2024). Check the Ministry of Health's website or your local council to find out whether you do. If your water source isn't fluoridated, a dentist or dental nurse can advise you how to keep your children's teeth healthy.

Milk as a drink

Consuming breast milk or plain whole-fat dairy milk daily in early childhood has favourable health benefits for growth and body composition, and milk is a good source of calcium and protein (US Department of Agriculture and US Department of Health

and Human Services 2020). For children over five years, calcium and protein can be obtained from dairy products like cheese and yoghurt and from other food sources (US Department of Agriculture and US Department of Health and Human Services 2020). Drinking too much milk can inhibit the absorption of iron and displace other important foods, so children and young people who drink milk should consume it in moderation (Blomhoff et al 2023; Scientific Advisory Committee on Nutrition 2024).

Drinking milk that has not been pasteurised (heated to a specific temperature for a set period to kill bacteria) carries risk, and there is no evidence that raw (unpasteurised) milk is a healthier option (Macdonald et al 2011). Raw milk from any animal may be contaminated with illness-causing bacteria, including shiga toxin-producing *Escherichia coli*, Salmonella and Campylobacter. These bacteria most commonly cause severe diarrhoea and vomiting, but occasionally they have serious complications that include paralysis, meningitis and serious kidney problems in children (New Zealand Food Safety 2025).

Whole-fat milk (blue label) contains some saturated fat and so previous dietary guidelines recommended switching from whole-fat milk to reduced or low-fat milk from two years of age. However, the most recent international evidence indicates that consumption of milk, yogurt and cheese, irrespective of fat content, has no effect on the risk of heart disease (Vanderhout et al 2020). There is also no evidence from randomized controlled trials that consumption of whole-fat milk, yogurt, and cheese has any effect on many different risk factors for cardiovascular disease and diabetes when compared with consumption of low-fat milk, yogurt, and cheese (Kang et al 2019). As a consequence, these dietary recommendations do not highlight or differentiate between whole-fat and low-fat dairy foods for children and young people (Lamarche et al 2025).

Plant-based milk alternatives (such as soy, oat, almond, rice, coconut or hemp) may be substituted for dairy milk, but they contain different nutritional profiles to dairy milk. For children and young people, unflavoured soy milk (fortified with calcium carbonate) is a good option, as it is higher in protein and energy than other plant-based milk alternatives.

Sugar and non-sweetened drinks

Children and young people should limit their intake of drinks with added sugar, like cordial, fruit drink, flavoured milks and plant-based alternatives, bubble (boba) or iced teas, and fizzy drinks. Sports drinks usually contain water, sugars, electrolytes like sodium and potassium and sometimes added vitamins. Most children and young people, even athletes, only need plain water to stay hydrated. High consumption of drinks with added and free sugars are associated with dental caries, weight gain and obesity, (Blomhoff et al 2023, U.S. Department of Agriculture and U.S. Department of Health and Human Services 2020, Moores et al 2022) and may increase the risk of diabetes later in life (Sonestedt and Lukic 2024).

Low and no-sugar fizzy drinks often contain natural or artificial sweeteners. Non-sugar sweetened beverages could be used in place of sugary fizzy drinks (like for celebrations) but water is the best choice to quench thirst.

Caffeinated drinks

Drinks containing caffeine are not recommended for children and should be limited in the diets of young people. Too much caffeine can cause anxiety, increased heart rate and blood pressure, sleep disturbances, an upset stomach, and in high doses it can be toxic to children (Food Standards Australia and New Zealand 2025). For young people, the maximum safe level of caffeine is no more than 3 mg per kilogram of body weight per day (EFSA Panel on Dietetic Products Nutrition and Allergies 2015).

Energy drinks (including energy shots and stimulant drinks) have a high amount of caffeine, sugar and other additives, and are therefore not recommended for children and young people.

Tea, coffee, cola-type drinks, bubble (boba) or iced teas and kombucha include caffeine. Other sources of caffeine include chocolate and chocolate-based confectionery, cakes, biscuits and muffins, milk and milkshakes, and sports foods and beverages (Food Standards Australia and New Zealand 2025).

Alcoholic drinks

Children and young people should not drink any alcohol. Early introduction to alcohol (even 'a sip') is associated with an earlier start to regularly drinking alcohol and alcohol disorders (National Health and Medical Research Council 2020). Alcohol is a depressant and slows decision making and reactions. Any use of alcohol increases the risk of harm from injury and has potential adverse effects on brain development (National Health and Medical Research Council 2020). Patterns of drinking in adolescence can have life-long impacts, as can alcohol-related harms experienced at this life stage (eg, sexual assault, impacts on school work and impacts on brain development) (Ball et al 2022).

Fermented drinks like kombucha can have variable and elevated alcohol content, especially if home-made, so it is best to avoid giving these drinks to young children.

Q4.1 Do you …

☐ support Recommendation 3?

☐ partially support Recommendation 3? Please explain:

☐ not support Recommendation 3? Please explain:

☐ not wish to comment on this recommendation? Go to recommendation 4.

Q4.2 Do you …

☐ support the supplementary recommendations in Recommendation 3?

☐ partially support the supplementary recommendations? Please explain:

☐ not support the supplementary recommendations? Please explain:

Q4.3 Do you have anything else to add on the topic of drinks in childhood and adolescence?

Recommendation 4

Eat three meals a day (breakfast, lunch and dinner) with nutritious snacks between meals if you're hungry.

Supplementary recommendations:

Where possible, eat together as a family and keep mealtimes relaxed and positive, without distraction from devices or screens.

Adequate sleep and regular physical activity are also critical to support healthy eating and general health and development.

Reason for the recommendations

During childhood and adolescence, certain individual and family behaviours are related to improved dietary intake and a healthy relationship with food. Sleeping well and moving more also promote healthy growth and development.

Regular mealtimes and snacks

Eating regularly throughout the day is particularly important for children and young people, as they have high nutrient needs and energy requirements (Gerritsen and Wall 2017). There are additional dietary needs during puberty, menstruation, growth spurts and periods of high activity (Cloetens and Ellegård 2023). Snacks can be a good opportunity to add more vegetables and fruit to a child's diet and provide extra energy when they are hungry or active. However, grazing throughout the day should be avoided, as it can reduce hunger at mealtimes, making it harder for children to eat a balanced meal.

Eating breakfast every day in childhood and adolescence is associated with better academic performance (Lundqvist et al 2019), mental health (Zahedi et al 2022), healthy body size (Horikawa et al 2011; Blondin et al 2016) and overall improved diet quality (Rampersaud et al 2005). Breakfast is a good opportunity for a nutritious meal containing high-fibre and nutrient-rich foods like whole grains, fruits, eggs or dairy products. Some ready-to-eat breakfast cereals are high in sugar, sodium and fat/energy while low in fibre and protein (Chepulis et al 2017).

Eating with others, without screens

Eating together regularly as a family has been shown to increase children's diet quality and maintain healthier eating habits (National Institute for Health and Welfare in Finland 2019; Gerritsen and Wall 2017), while also supporting their family connections and mental health. Eating together also provides an opportunity for adults to role-model eating a balanced meal, tasting new foods and enjoying food (National Institute for Health and Welfare in Finland 2019). When adults eat a wider range of vegetables

and fruit in front of children, children are more likely to increase their own intake of these foods (Gerritsen and Wall 2017; Scientific Committee of the Food Safety Authority of Ireland 2020).

Creating a calm and non-judgmental environment during mealtimes helps children and young people develop a healthier relationship with food (Brantley et al 2023). Additionally, ensuring mealtimes are 'screen-free' – that is, without people watching television or using phones or other devices – encourages conversation and helps everyone to be aware of when they have eaten enough (feeling full). Using food as a reward or for emotional regulation (eg, providing dessert only if children eat vegetables are behave in a certain way) is ineffective and only enhances preference for the reward foods, so should be avoided (Brantley 2023).

Fussy eating is common in childhood, but can make it harder for children and young people to eat a balanced diet that includes all four food groups; particularly vegetables, fruit and protein-rich foods. New Zealand research has found that fussy eating can persist from toddlerhood into childhood (Liu et al 2024). Recommended eating behaviours, such as having family meals, limiting distractions at mealtimes and providing positive parental role-modelling, are associated with reduced food fussiness in New Zealand children (Brantley 2023; Liu et al 2024).

Healthy habits for nutrition, physical activity and sleep

Diet, physical activity and sleep are interdependent, and all three are strongly associated with the physical and mental health of children and young people (Blyth et al 2025). Consumption of healthy foods is associated with better sleep quality, while higher intake of processed and sugary foods and drinks is associated with poor sleep (Godos et al 2021). While the direction of this association is still unclear (that is, it is unknown whether poor sleep causes poor eating behaviours or poor diet causes disrupted sleep), it is most likely bidirectional (Ward et al 2021).

Regular physical activity that uses a range of skills and muscle groups is important for children and young people's growth and development and can also influence their food choices. Sedentary behaviours, particularly a lot of screen time, are associated with greater intake of highly processed foods and less fruit and vegetable consumption in children (Hobbs et al 2015). Three explanations for this have been proposed: viewing advertisements for unhealthy foods and drinks encourages consumption, sedentary activities encourage passive snacking or overeating and the distraction of watching a screen while eating may disrupt people's natural ability to feel satiety (Brosnan et al 2025; Alosaimi et al 2023).

Building healthy habits early in life, like enjoying a nutritious diet, staying physically active and getting enough sleep, supports overall wellbeing and helps protect against a range of health conditions later in life. Nurturing a positive relationship with food and the body can contribute to maintaining a healthy body size over time (Goran et al 2025), which is linked to lower risk of several diseases later in life (including type 2 diabetes; breast, endometrial, colorectal and kidney cancers; cardiovascular diseases;

and asthma) (World Cancer Research Fund and American Institute for Cancer Research 2018; Cloetens and Ellegård 2023).

Q5.1 Do you …

☐ support Recommendation 4?

☐ partially support Recommendation 4? Please explain:

☐ not support Recommendation 4? Please explain:

☐ not wish to comment on this recommendation? Go to recommendation 5.

Q5.2 Do you …

☐ support the supplementary recommendations in Recommendation 4?

☐ partially support the supplementary recommendations? Please explain:

☐ not support the supplementary recommendations? Please explain:

Q5.3 Do you have anything else to add on the topic of eating behaviours in childhood and adolescence?

Recommendation 5

Everyone has a role to play in helping children and young people develop healthy eating patterns.

Supplementary recommendations:

Creating supportive and culturally responsive food environments helps to ensure positive food choices are possible for everyone.

Food and drink marketing can influence food choices in ways that do not promote healthy eating.

Involve children and young people in shopping, growing, preparing and cooking food.

Reason for the recommendations

A society-wide goal

Access to adequate food and freedom from hunger are fundamental human rights (Article 25 of the Universal Declaration of Human Rights and Article 11 of the International Covenant on Economic, Social and Cultural Rights). Additionally, Article 24 of the Convention on the Rights of the Child states that under 18-year-olds have the right to good health, including access to nutritious food and clean drinking water. However, many families in New Zealand find it difficult to afford a healthy diet for their children, and this leads to nutritional inequities (Mackay et al 2018; McKelvie-Sebileau et al 2022; Gerritsen et al 2023; Gerritsen et al 2020). Addressing these inequities requires more than educating parents and children about what is a healthy diet. Economic, policy and environmental strategies that improve the food environment are essential to provide equitable access to healthy food and drinks and make it easier for everyone to make nutritious choices (Public Health Advisory Committee 2024). Because many factors influence children and young people's diet, a broad range of actions is needed to support healthy eating.

The importance of traditional diets

Cultural and traditional foods play an important role in revitalising and sustaining cultural customs and knowledge and can be included in a healthy diet (FAO of the United Nations and WHO 2019). Strong international evidence shows that dietary approaches that respect and reflect people's cultural practices, values and preferences are more engaging and more effective at improving health outcomes (WHO and FAO of the United Nations 2024).

In te ao Māori (the Māori world), kai is more than physical nourishment, and plays an important role in practices of cultural connection and expression (Public Health

Advisory Committee 2024). Particular tikanga guides how kai is gathered, prepared, shared and eaten. Serving kai is a cornerstone in cultural practices of hospitality and manaakitanga and the traditional Māori values of bringing people together and strengthening relationships. Whakapapa links people to the environment, land, deities and one another (Phillips et al 2016; Renall and Te Morenga 2024). A holistic understanding of tikanga and the relational nature of kai highlights the deep connections between people, place and wellbeing in te ao Māori.

Similarly, mea'ai/me'akai (food) holds deep cultural significance for many Pacific peoples living in Aotearoa New Zealand, offering far more than physical nourishment. The seven most common Pacific ethnicities in Aotearoa are Samoan, Tongan, Cook Islands Māori, Niuean, Fijian, Tokelauan and Tuvaluan (Stats NZ 2025). While each group has its own distinct language, culture, beliefs, customs, protocols and cuisine, they share a holistic view of food. For Pacific peoples, food is central to 'aiga/kāinga (whānau) and community life (Tupai-Firestone et al 2025; Skudder 2014). It brings people together, strengthens relationships and expresses core cultural values such as respect, humility, service and love, especially during family and communal celebrations like birthdays, funerals and church events (Muimuiheata 2022). Food also plays a role in restoring harmony: the offering of food is used to heal and reconcile relationships. In traditional healing practices, certain plants also consumed as foods are valued for their medicinal properties. Recognising and embracing these perspectives on food is essential for fostering Pacific communities' meaningful engagement in nutrition.

Food insecurity

Notwithstanding the cultural aspects of food choice, people eat what is available and what they can afford (Food and Agriculture Organization of the United Nations and WHO 2019). Despite Aotearoa New Zealand being a major food producer, some children and young people cannot access the nutritious food they need for healthy growth and development (Public Health Advisory Committee 2024). In contrast to many other countries, the rate of children living in households with food insecurity in New Zealand has increased since 2021/22 (FAO, IFAD, UNICEF et al 2024; Ministry of Health 2024a). Household food insecurity occurs when there is unreliable access to adequate food or when caregivers feel stressed and anxious about providing food or are forced to rely on charity or emergency assistance programmes (Ministry of Health 2019). Children living in food-insecure households tend to have poorer diets (Gerritsen et al 2020; Parnell2005; Fram et al 2015), increased rates of obesity (Utter et al 2012), poorer health status (both physical and mental) (Utter et al 2018) and higher rates of developmental and behavioural problems, which can also affect their school performance (Simonovich et al 2020; Abraham et al 2023). In New Zealand, food insecurity is largely the result of a lack of sufficient money for food, although other socio-cultural factors play a role (Tomita et al 2025). Economic and environmental strategies, rather than solely educational interventions, have the greatest success in improving diet and nutrition-related health disparities (Hörnell et al 2023).

Unhealthy food environments

Healthy eating is shaped by the food environments in which children and young people live in and what foods are available, affordable and promoted (Engler-Stringer

et al 2014). Food environments outside the home are often not conducive to positive food choices and can have a significant impact on children and young people's diets (Neufeld et al 2022). The availability and affordability of healthy food is the largest barrier to following dietary guidelines (National Health and Medical Research Council 2013). New Zealand children and young people regularly eat takeaways and fast food, and consumption of foods outside the home increases as children age and have increased discretionary money (Ministry of Health 2022). Takeaways are often cheap; highly processed; high in sugar, saturated fat and salt; and easily accessible around schools and in lower socioeconomic communities (Sushil et al 2017; Vandevijvere et al 2016; Kneller et al 2025; Brien et al 2023). Diets that contain large amounts of 'fast foods' or other highly processed foods carry an increased risk of excess body weight (Juul and Bere 2024). In childhood and adolescence, eating a lot of takeaways and highly processed foods can result in low nutrient intake: that is, not getting the vitamins, minerals and fibre needed for healthy growth and development.

Marketing of unhealthy food and drinks is ubiquitous in the lives of children and young people (Frost et al 2025), and this influences their preferences, choices and purchasing in ways that can be harmful (Cairns et al 2013). In New Zealand, 'occasional food and beverages' (eg, fast food, takeaways, confectionery and fizzy drinks) are not supposed to be marketed directly to children (Advertising Standards Authority 2023). However, children often see advertisements on social media platforms, where there is less compliance and monitoring, and in public or digital spaces where children are not the main audience, such as neighbourhoods, shop fronts and bus stops (Brien et al 2023; Frost et al 2025; Garton et al 2022; Signal et al 2017; McKerchar et al 2020). Children and young people can be empowered with the knowledge, skills and motivation to make healthier food choices. Parents, caregivers and other significant adults like teachers can actively promote and raise children and young people's advertising literacy and critical thinking skills, to encourage them to question the persuasive effects and claims of food and beverage advertising (Neufeld et al 2022).

Food literacy and young people's autonomy

Involving children and young people in growing, shopping, preparing and cooking food improves their food literacy (the knowledge, skills and behaviour they need to make positive food choices) and encourages their self-sufficiency and independence (Gerritsen and Wall 2017; Neufeld et al 2022). Gardening programmes in schools, especially those integrated into the wider curriculum, have been found to improve children and young people's access to, preference for and consumption of vegetables and fruits (Savoie-Roskos et al 2017; Wolfenden et al 2021; Wakefield 2013). Cooking classes in schools and community kitchens may assist with the development of skills and positive nutrition-related behaviours (Wakefield 2013; Vaughan et al 2024; Evans et al 2012). Home gardens and gardening as a family activity are an important source of knowledge for Māori, Pacific and Asian children in Aotearoa (Sharp et al 2024).

Efforts to improve food environments, and thereby improve children and young people's food preferences and choices, can harness widely shared adolescent values and desire for social interaction around food. Given their increasing autonomy and agency, young people can be active drivers of change in their food environments community to create healthier diets (Neufeld et al 2022).

Q6.1 Do you …

☐ support Recommendation 5?

☐ partially support Recommendation 5? Please explain:

☐ not support Recommendation 5? Please explain:

☐ not wish to comment on this recommendation? Go to the next page.

Q6.2 Do you …

☐ support the supplementary recommendations in Recommendation 5?

☐ partially support the supplementary recommendations? Please explain:

☐ not support the supplementary recommendations? Please explain:

Q6.3 Do you have anything else to add on the topic of supportive food environments?

Final questions

Q7.1 Are there any other topics you expected to see in the children and young people's dietary recommendations that have not been included in these draft recommendations?

☐ No

☐ Yes: please specify

Q7.2 It has now been 10 years since the format of the dietary guidelines changed from longer, technical publications such as the previous **Food and Nutrition Guidelines for Healthy Children and Young People (Aged 2-18 years): A background paper** (2012) to the new style in the **Eating and Activity Guidelines for New Zealand Adults** (2020) and the **Healthy Eating Guidelines for New Zealand Babies and Toddlers (0–2 years old)** (2021). Do you have any feedback on the style or format of the dietary guidelines?

☐ No

☐ Yes: please specify

Q7.3 Would you be happy to be contacted again if we had specific questions in your area of expertise, or to clarify a response you have given in this survey?

☐ No

☐ Yes: please provide your email address

Q7.4 Would you like to be kept informed about the publication of the *Children and Young People's Dietary Guidelines* and similar publications from the Ministry of Health?

☐ No

☐ Yes: please provide your email address

Thank you for your time and sharing your expertise with us.

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