



# Children's Nutrition

Contributing to the health  
of younger Australians



# Dairy nutrition in children

## **Contributing to the health of younger Australians**

School years are busy ones and children need good nutrition to help them concentrate at school and to fuel their day-to-day activities (play and sport). Children of this age are also constantly growing. As well as providing enough fuel for day-to-day activities, a child needs nutritious foods to support normal growth and development.



# Why we love dairy

Fonterra provides a range of dairy foods that can all play a role in a healthy, balanced diet for Australian children. Dairy is considered a “good for you” food and is one of the five food groups recommended by the Australian Dietary Guidelines.<sup>(1)</sup> These guidelines are designed to promote health and wellbeing, and help Australians of all ages to eat well and help reduce the risk of diet-related and chronic illness.

The five food group dairy products includes milk, cheese and yoghurt, and provide a valuable source of dairy goodness. Milk contains at least ten essential nutrients, including protein, carbohydrate, vitamins (A, B12 and riboflavin) and minerals (calcium, phosphorus, magnesium, potassium and zinc).

## Bone health

Dairy foods are possibly best known for calcium and the role it plays in building strong bones. Along with the rest of their body, children's bones grow rapidly. A calcium-rich diet during childhood helps maximise peak bone mass and helps reduce the risk of osteoporosis and fractures in later life.

## Dental health

Despite being largely preventable, tooth decay is still a very common health problem in Australian children. In addition to good oral hygiene (regular brushing), balanced nutrition and healthy eating habits play an important role in preventing dental disease. Dairy foods have a specific role to play in dental health as they contain a unique combination of special anti-decay nutrients such as calcium, phosphorus and the milk protein, casein.

# Nutrition and children

**Fonterra supports the WHO Position that breast milk is the best source of nutrition for a baby, providing the right nutrients for it to develop and grow.<sup>(2)</sup> When infants are not breastfed, infant formula from cow's milk is the recommended alternative to breast milk.<sup>(3)</sup>**

Around the age of six months, an infant's need for energy and nutrients starts to exceed what is provided by breast milk, and complementary foods are necessary to meet those needs. Infants under the age of 12 months should not be given cow's milk as their main milk drink, because it cannot be digested as easily as they digest breast milk or infant formula. However, cow's milk can be served in small quantities on cereal or as part of custards with no added sugars.<sup>(3)</sup>

Children under two years of age have relatively high energy requirements and are growing rapidly, so whole fat milks, yoghurts and cheeses are recommended for them.

In this booklet, the content focuses on children over two years of age. It is encouraged that children over two years enjoy a wide variety of nutritious foods every day to provide them with a greater range of vitamins and minerals. The best way to do this is to select food from the five food groups outlined in the Australian Guide to Healthy Eating.<sup>(1)</sup>

## The five food groups



Vegetables and legumes/beans



Fruits



Grain (cereal) foods, mostly wholegrain and/or high cereal fibre varieties



Lean meats and poultry, fish, eggs, tofu, nuts and seeds and legumes/beans



Milk, yoghurt, cheese and/or alternatives, mostly reduced fat



# Benefits of dairy for children

Dairy foods are particularly important for growing children and adolescents.

## How much dairy is recommended?

As children grow, their dairy requirements grow too. Dairy is the second most under consumed of the five food groups, after vegetables - with only 20% of children meeting their daily dairy serves. <sup>(4)</sup>

From the age of four, most Australian children need to increase their intake of foods from the dairy food group to meet Australian dietary recommendations. Childhood and adolescence are times of rapid growth and a critical period for building healthy bones. It is essential to eat enough calcium-rich foods and do regular physical activity during the first twenty years of life to help achieve a healthy maximum bone density.

The table below shows how many serves of dairy foods children need each day:

Recommended Serves of Dairy <sup>(5)</sup>		
	Boys	Girls
<b>2-3 years</b>	1 ½ serves	1 ½ serves
<b>4-8 years</b>	2 serves	1 ½ serves
<b>9-11 years</b>	2½ serves	3 serves
<b>12-18 years</b>	3 ½ serves	3 ½ serves

## What is a serve?

1 cup (250 mL) fresh, UHT (long life), reconstituted powdered milk or buttermilk

2 slices (40 g) of hard cheese, such as cheddar

½ cup (120 g) ricotta cheese

¾ cup (200 g) yoghurt





## Dairy and body weight status in children

Overweight and obesity affects 25% of Australian children and adolescents (aged 2-17) and is associated with poorer health and wellbeing and higher health-care costs. Some groups of Australian children and adolescents are more likely to be overweight or obese, such as Indigenous children and children living in disadvantaged areas. Many factors contribute to the development of overweight and obesity, including environmental influences and individual behaviours. <sup>(6)</sup>

Research shows sufficient intake of dairy foods can help maintain a healthy weight when eaten as part of a healthy, balanced diet. <sup>(6)</sup> In a recent systematic review, Lu et al. <sup>(7)</sup> found that dairy foods (including cheese) were associated with reduced risk of children being overweight or obese. When it comes to the type of dairy foods, research shows the consumption of any variety of the five food group dairy foods have no harmful effect on weight status in children and adults. <sup>(1)</sup> For example, whole fat milk has been shown to have no negative effects on body weight and long-term health. <sup>(8)</sup>

## Physical activity and children

Being physically active is important for healthy, growing kids. Physical activity helps kids build strong bones and muscles, maintain a healthy weight, improve balance and develop skills, and contributes to a happy state of mind and positive self-esteem. Whether your child is physically active through play or participates in organised sport, what they eat and drink can help them be their best and enjoy their exercise. The right nutrition and hydration can increase their energy levels during exercise, and help tired bodies recover after sport.

For athletes and active Australians, dairy foods from the five food group like milk, yoghurt and cheese offer extra benefits. Their unique combination of nutrients means they can be used as targeted sports foods to meet specific nutrition goals. Research has found kids rehydrate better when they drink milk after exercise compared to water, and that milk is just as good as a sports drink for rehydration. <sup>(9)</sup> In addition to replacing water and electrolyte losses, milk is a good source of calcium and magnesium which are other essential minerals lost during exercise. Milk and flavoured milk contain carbohydrates to help kids refuel and the added benefit of high-quality proteins (whey and casein) which play an important role in muscle growth and repair. <sup>(10)</sup>



# Encouraging healthy behaviours

School is a time when children are exposed to many influences outside of the family. Their social life increases, and peers can play a large part in forming attitudes towards foods. Children become more aware of food advertising and trends in the media and while shopping. At school, the canteen offers the opportunity for children to make their own food selections and food and nutrition is discussed by teachers as part of the school curriculum.

Sitting down as a family to eat is a great way to lead by example and makes food social and fun too. Children love being involved and can help with the shopping and food preparation. Growing their own food such as fruit and vegetables also teaches them about how food gets to our table and is a good way to encourage them to eat from these food groups.

## Below are some ideas to help include more dairy in your child's daily diet.

- A steaming milky porridge is a great winter warmer, or in the summer months pour some cold milk over cereal
- Grilled cheese and baked beans on toast is always a favourite
- Pour yoghurt over seasonal fruit
- Sandwiches / wraps with cheese and choice of salad

## School canteen criteria

Much of the current work on state and territory-based strategies to get school canteens healthy is informed by the Australian Dietary Guidelines.<sup>(i)</sup> Whilst there are different approaches to communicating the healthy canteen message from state to state, the healthy eating message remains the same. Therefore, while some states such as Western Australia and Queensland use a “traffic light system”, others such as Victoria and New South Wales use the concepts of “Everyday Food” and “Occasional Food”. In all cases, the aim is to get children and adolescents eating well and in line with the Australian Dietary Guidelines.

The school canteen guidelines in each state applies to all school food services and are recommended by state government and independent schools. The following table shows the eligibility of Fonterra products state by state.

Note. The school canteen criteria for dairy foods have been designed to support the Australian Dietary Guidelines which include dairy foods from the five food groups. For example, dairy products based on reduced fat milks are assigned a higher rating (i.e. more eligible) than whole fat milk counterparts and are classed as ‘everyday’ healthy options.



# School Canteens Australia – State Sale Eligibility

Dairy food	Key nutrients	Ways to incorporate on the menu	Fonterra products	State sale eligibility					
				NSW	QLD	SA	WA	VIC	TAS
Plain Milk, fluid	Energy, Calcium, Fat, Carbohydrate, Protein	Offer as a drink, on-site made smoothies, used in on-site baking	Anchor UHT Milk Blue Full Cream	Green	Yellow	Red*	Yellow	Yellow	Yellow
			Anchor UHT Skim Milk	Green	Green	Red**	Green	Green	Green
			Anchor UHT Milk Barista	Green	Green	Red*	Yellow	Yellow	Yellow
			Anchor UHT Milk Portions	Green	Green	Red*	Yellow	Yellow	Yellow
Plain Milk, powdered	Energy, Calcium, Fat, Carbohydrate, Protein	Use to formulate milk beverages, used in on-site baking	Diploma Instant Full Cream Milk Powder	Green	Green	Green	Green	Green	Green
			Diploma Instant Skim Milk Powder	Green	Green	Green	Green	Green	Green
			Diploma Whole Milk Powder Instant	Green	Green	Green	Green	Green	Green
			Fonterra Instant Skim Milk Powder	Green	Green	Green	Green	Green	Green
			Fonterra Instant Whole Milk Powder 26% Fat	Green	Yellow	Yellow	Yellow	Yellow	Yellow
Cheese, snacking	Energy Protein Calcium (hard cheese) Fat	Snack products; either sold with crackers or in snack-portions alone	Bega Stringers	Green	Yellow	Green	Yellow	Green	Green
			Bega Bar-B-Cubes	Green	Yellow	Yellow	Yellow	Yellow	Yellow
			Mainland On The Go Cracked Pepper Cream Cheese 50 g	Green	Red	Red	Red	Red	Red
			Mainland On The Go Tasty Cheese with Water Crackers 50 g	Green	Red	Red	Red	Red	Red
			Mainland On The Go Light Tasty Cheese with Water Crackers 50 g	Green	Red	Red	Red	Red	Red
			Mainland On The Go Special Reserve Extra Tasty Cheese with Water Crackers Pack 50 g	Green	Red	Red	Red	Red	Red
			Mainland On The Go Colby Cheese with Water Crackers 50 g	Green	Red	Red	Red	Red	Red
			Mainland On The Go Edam Cheese with Water Crackers 50 g	Green	Red	Red	Red	Red	Red
			Mainland On The Go Light Tasty Cheese with Water Crackers 30 g	Green	Red	Green	Red	Red	Red
			Mainland On The Go Tasty/Extra Tasty Cheese with Water Crackers 30 g	Green	Red	Red	Red	Red	Red
			Mainland Munchables Tasty Cheese & Biscuits	Green	Red	Red	Red	Red	Red
			Bega Tasty Portions	Green	Yellow	Green	Yellow	Yellow	Yellow
			Mainland Edam Portions	Green	Green	Green	Yellow	Green	Green
			Bega Light Tasty Portions	Green	Green	Green	Yellow	Green	Green
			Bega Strong and Bitey Vintage Cheddar Portions	Green	Yellow	Yellow	Yellow	Yellow	Yellow
			Bega Strong and Bitey Vintage Cheddar Portions	Green	Yellow	Yellow	Yellow	Yellow	Yellow

Dairy food	Key nutrients	Ways to incorporate on the menu	Fonterra products	State sale eligibility					
				NSW	QLD	SA	WA	VIC	TAS
Cheese, non-snacking	Energy Protein Calcium (hard cheese) Fat	Add to sandwiches, salads Used in on-site cooking, such as savoury muffins, vegetable bakes, pasta	Mainland On The Go Lunch Caramelised Onion Relish	Green	Red	Red	Red	Red	Red
			Mainland On The Go Lunch Balsamic Beetroot	Green	Red	Red	Red	Red	Red
			Mainland On The Go Lunch Jalapeno Relish	Green	Red	Red	Red	Red	Red
			Mainland On The Go Lunch Tomato & Cracked Pepper Relish	Green	Red	Red	Red	Red	Red
			Anchor Processed Burger Slices	Green	Yellow	Yellow	Yellow	Yellow	Yellow
			Anchor Cream Cheese	Green	Yellow	Yellow	Yellow	Yellow	Yellow
			Bega Processed Sandwich Slices	Green	Yellow	Yellow	Yellow	Yellow	Yellow
			Bega Super Slices Processed Cheese	Green	Yellow	Yellow	Yellow	Yellow	Yellow
			Bega Super Slim Processed Cheese	Green	Yellow	Yellow	Yellow	Yellow	Yellow
			Bega Strong and Bitey Vintage Cheddar Slices/Block	Green	Yellow	Yellow	Yellow	Yellow	Yellow
			Bega So Light Tasty 25% Reduced Fat Slices	Green	Green	Green	Yellow	Green	Green
			Bega So Light Vintage 25% Reduced Fat Slices	Green	Green	Green	Yellow	Green	Green
			Bega So Light Tasty 50% Reduced Fat Slices	Green	Green	Green	Yellow	Green	Green
			Bega Tasty Block/Slices/Grated	Green	Yellow	Yellow	Yellow	Yellow	Yellow
			Fonterra Egmont Bulk	Green	Yellow	Yellow	Yellow	Yellow	Yellow
			Fonterra New Zealand Mild Cheddar/Tasty Cheddar Bulk	Green	Yellow	Yellow	Yellow	Yellow	Yellow
			Mainland Processed Easy Peel Slices	Green	Yellow	Yellow	Yellow	Yellow	Yellow
			Mainland Swiss Slices/Block	Green	Yellow	Yellow	Yellow	Yellow	Yellow
			Mainland Swiss Slices/Block	Green	Yellow	Yellow	Yellow	Yellow	Yellow
			Mainland Egmont Shredded/Slices	Green	Yellow	Yellow	Yellow	Yellow	Yellow
			Mainland Tasty Block/Shredded/Slices/Grated	Green	Yellow	Yellow	Yellow	Yellow	Yellow
			Mainland Edam Block	Green	Green	Green	Yellow	Green	Green
			Mainland Light Tasty Grated/Slices	Green	Green	Green	Yellow	Green	Green
			Mainland Mozzarella Shredded/Grated	Green	Yellow	Yellow	Yellow	Yellow	Yellow
			Mainland Gouda/Epicure Gold/Extra Tasty/Mild/Vintage Block	Green	Yellow	Yellow	Yellow	Yellow	Yellow
			Mainland Gouda/Epicure Gold/Extra Tasty/Mild/Vintage Block	Green	Yellow	Yellow	Yellow	Yellow	Yellow

# School Canteens Australia – State Sale Eligibility

Dairy food	Key nutrients	Ways to incorporate on the menu	Fonterra products	State sale eligibility						
				NSW	QLD	SA	WA	VIC	TAS	
Cheese, non-snacking	Energy Protein Calcium (hard cheese) Fat	Add to sandwiches, salads  Used in on-site cooking, such as savoury muffins, vegetable bakes, pasta	Mainland Special Reserve Creamy Feta Block/Cubes	Green	Amber	Amber	Amber	Amber	Amber	Amber
			Mainland Special Reserve Blue Vein Wedge	Green	Amber	Amber	Amber	Amber	Amber	Amber
			Perfect Italiano Parmesan Block/Grated/Shaved/Shredded/Extra sharp	Green	Amber	Amber	Amber	Amber	Amber	Amber
			Perfect Italiano Pizza Plus Shredded	Green	Amber	Amber	Amber	Amber	Amber	Amber
			Perfect Italiano Perfect Bakes Cheese Blend Shredded	Green	Amber	Amber	Amber	Amber	Amber	Amber
			Perfect Italiano Ricotta Original Cheese	Green	Amber	Amber	Amber	Amber	Amber	Amber
			Perfect Italiano Ricotta Light	Green	Amber	Amber	Amber	Amber	Amber	Amber
			Perfect Italiano Traditional Mozzarella Block/Shredded	Green	Amber	Amber	Amber	Amber	Amber	Amber
			Perfect Italiano Ultra Mozzarella Shredded	Green	Amber	Amber	Amber	Amber	Amber	Amber
			NZMP Bulk Cheese Egmont	Green	Amber	Amber	Amber	Amber	Amber	Amber
			NZMP Bulk Cheese Tasty/Mild Tasty Cheddar	Green	Amber	Amber	Amber	Amber	Amber	Amber
			NZMP Bulk Cheese Parmesan	Green	Amber	Amber	Amber	Amber	Amber	Amber
			NZMP Bulk Cheese Mozzarella	Green	Amber	Amber	Amber	Amber	Amber	Amber
Cream	Energy Fat	Not to be sold	Anchor Culinary Cream	Red	Red	Red	Red	Red	Red	Red
			Anchor Culinary Cream Light Extra Yield	Red	Red	Red	Red	Red	Red	Red
			Anchor UHT Whipping Cream	Red	Red	Red	Red	Red	Red	Red
Butter and Spreads	Energy Fat	Not to be sold	Western Star Salted Butter	Red	Red	Red	N/A	Red	Red	Red
			Western Star Butter Salt Reduced	Red	Red	Red	N/A	Red	Red	Red
			Western Star Unsalted Butter	Red	Red	Red	N/A	Red	Red	Red
			Western Star Cultured Unsalted Butter	Red	Red	Red	N/A	Red	Red	Red
			Anchor Butter Salted	Red	Red	Red	N/A	Red	Red	Red
			Anchor Butter Unsalted	Red	Red	Red	N/A	Red	Red	Red
			Anchor Buttersheets Unsalted	Red	Red	Red	N/A	Red	Red	Red
			Western Star Easy Spread	Red	Red	Red	N/A	Red	Red	Red
			Western Star Spreadable Blend Original	Red	Red	Red	N/A	Red	Red	Red

Dairy food	Key nutrients	Ways to incorporate on the menu	Fonterra products	State sale eligibility						
				NSW	QLD	SA	WA	VIC	TAS	
Butter and Spreads	Energy Fat	Not to be sold	Western Star Spreadable Blend Original Salt Reduced	Red	Red	Red	Red	Red	Red	Red
			Western Star Spreadable Blend Light n' Soft	Red	Red	Red	Red	Red	Red	Red
			Western Star Spreadable Blend Supersoft	Red	Red	Red	Red	Red	Red	Red
			Girgar Unsalted Butter	Red	Red	Red	Red	Red	Red	Red
			Girgar Butter Unsalted Cultured	Red	Red	Red	Red	Red	Red	Red
			Western Star Butter Blend Easy Spread	Red	Red	Red	Red	Red	Red	Red
			Western Star Chef's Choice Butter Unsalted	Red	Red	Red	N/A	Red	Red	Red
			Allowrie Butter Salted	Red	Red	Red	Red	Red	Red	Red
			Allowrie Butter Unsalted	Red	Red	Red	Red	Red	Red	Red
			Allowrie Butter Unsalted Cultured	Red	Red	Red	Red	Red	Red	Red
			Mainland Buttersoft Salted	Red	Red	Red	Red	Red	Red	Red
			Mainland Buttersoft Salt Reduced	Red	Red	Red	Red	Red	Red	Red
			Fonterra Butter Unsalted	Red	Red	Red	Red	Red	Red	Red
			Fonterra Butter Unsalted	Red	Red	Red	Red	Red	Red	Red

- 'Everyday' healthy option
- 'Occasional' product
- Should be avoided

\*Whole fat must be ≤600 mL to be amber

\*\*Reduced fat must be ≤375 mL primary school and ≤600 mL secondary school to be green



## References:

- 1 National Health and Medical Research Council. (2013) Australian Dietary Guidelines. Canberra: National Health and Medical Research Council.  
Retrieved from <https://www.health.gov.au/resources/publications/the-australian-dietary-guidelines>
- 2 World Health Organisation (WHO). (1981) International Code of marketing of breast-milk substitutes. World Health Organisation.  
Retrieved from [https://www.who.int/nutrition/publications/code\\_english.pdf](https://www.who.int/nutrition/publications/code_english.pdf)
- 3 National Health and Medical Research Council. (2013) Infant feeding guidelines: Summary. Canberra: National Health and Medical Research Council.  
Retrieved from [https://www.eatforhealth.gov.au/sites/default/files/content/The%20Guidelines/170131\\_156\\_infant\\_feeding\\_guidelines\\_summary.pdf](https://www.eatforhealth.gov.au/sites/default/files/content/The%20Guidelines/170131_156_infant_feeding_guidelines_summary.pdf)
- 4 Australian Bureau of Statistics. 4364.0.55.012 - Australian Health Survey: Consumption of Food Groups from the Australian Dietary Guidelines, 2011-12. 2016.
- 5 Australian Institute of Health and Welfare 2020. Overweight and obesity among Australian children and adolescents.  
Retrieved from <https://www.aihw.gov.au/getmedia/ac61b7d7-7991-4e15-8fa6-a7973479fa8b/aihw-phe-274.pdf.aspx?inline=true>
- 6 Louie JCY, Flood VM, Hector DJ, Rangan AM, Gill TP. (2011) Dairy consumption and overweight and obesity: a systematic review of prospective cohort studies. *Obesity Reviews* 12: e582-e592.
- 7 Lu et al. (2016) Long-term association between dairy consumption and risk of childhood obesity: a systematic review and meta-analysis of prospective cohort studies. *Eur J Clin Nutrition* 70:414-23.
- 8 Kratz M, Baars T, Guyenet S. (2013) The relationship between high-fat dairy consumption and obesity, cardiovascular, and metabolic disease. *Eur J Nutrition* 52(1):1-24.
- 9 Volterman K et al. (2011) Children and Exercise XXVII: The Proceedings of the XXVIIth International Symposium of the European Group of Paediatric Work Physiology. Chapter 13:101-105.
- 10 Phillips SM et al. (2009) The role of milk- and soy-based protein in support of muscle protein synthesis and muscle protein accretion in young and elderly persons. *Journal of the American College of Nutrition* 28(4):343-54.





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