

Australian Dairy Health and nutrition



**THRIVE
TOGETHER**
WITH AUSTRALIAN DAIRY

Dairy does a lot more than build and maintain healthy teeth and bones. Eating milk, cheese and yoghurt as part of a healthy balanced diet can provide many health benefits – from supporting digestion to building lean muscle mass.

Dairy products are packed full of protein, vitamins and minerals – and are an accessible way to consume these vital nutrients. Whether it is a glass of milk in the morning or cheese with lunch, dairy is a convenient and enjoyable way for people to increase their nutritional intake.

More than 80% of the world's population regularly consumes dairy.¹

As demand for milk and dairy foods grows year-on-year, the importance of dairy foods as a reliable source of nutrition for the world's population will increase. As one of the most versatile food sources in the human diet, dairy makes a significant contribution to health around the world.

The Food and Agriculture Organisation database has 96 dietary guidelines, 64 of which give specific recommendations for dairy intake.²

¹ International Dairy Federation 2023. Dairy's Global Impact. <https://fil-idf.org/dairys-global-impact/>.

² International Dairy Federation analysis of Dietary Guidelines (2020; internal document). Extracted from data available from the Food and Agriculture Organization of the United Nations (FAO) fao.org/nutrition/education/food-based-dietaryguidelines/regions/countries/en/.

Building and maintaining muscle mass

Studies show that among nutritional workout supplements, it is milk proteins that best help to promote muscle growth.³

The benefits, though, are not limited to athletes – protein intake is important for all ages, from children to the elderly.⁴

Milk has a unique blend of casein and whey proteins with amino acids that group together in a fashion similar to those naturally occurring in muscles. Casein is slow-releasing and helps with muscle breakdown, whereas whey is fast-acting and helps to build new muscle – allowing milk to provide a comprehensive, targeted boost to muscle growth and repair.⁵

Facts

Studies have shown that milk intake 'acutely increases' muscle protein synthesis⁶ – an integral component of muscle growth and repair.

Milk assists with rehydration after exercise. Milk restores fluid and electrolytes in the right balance, replacing sweat loss better than water or a sports drink.⁷

Going with your gut

Health scientists are growing increasingly aware of the key role of gut health in determining a person's overall health and vitality.⁸

The gut has its own microbiome – it is a living ecosystem consisting of trillions of microorganisms from bacteria to fungi.⁹ Like any ecosystem, it is all about maintaining a balance. Fermented dairy foods are among the richest sources of probiotics, which help to maintain the natural balance of gut microbiota.¹⁰ Yoghurt is the perfect vehicle for these probiotics to make the journey from the digestive system to the gut, and simultaneously provides several other nutrients promoting good health.¹¹

Facts

The health of a person's gut microbiome is linked to the development of conditions like obesity and inflammatory bowel disease.¹²

Fermented dairy foods such as yoghurt, cultured drinks and kefir are among the most common and easily available sources of probiotics.



- 3 For the benefits of milk proteins and amino acids, see, eg, Master PBZ et al. Effects of Dietary Supplementation in Sport and Exercise: A Review of Evidence on Milk Proteins and Amino Acids (202) Critical Review of Food Science Nutrition.
- 4 dairyfoods.com/articles/92124-protein-benefits-everyone-from-children-to-seniors
- 5 See, eg, Mitchell CJ et al. Consumption of Milk Protein or Whey Protein Results in a Similar Increase in Muscle Protein Synthesis in Middle Aged Men (2015) Nutrients.
- 6 Roy BD 'Milk: The New Sports Drink? A Review' (2008) Journal of the International Society of Sports Nutrition.
- 7 Shirreffs SM, Watson P, Maughan RJ. Milk as an effective post-exercise rehydration drink. Br J Nutr. 2007;98:173–80.

- 8 See, e.g., Valdes AM, Walter J, Segal E, Spector RD, Role of the Gut Microbiota in Nutrition and Health (2021) British Medical Journal and Graham C, Mullen A, Whelan K, Obesity and the Gastrointestinal Microbiota: A Review of Associations and Mechanisms (2015) Nutritional Reviews.
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- 12 Graham C et al. Obesity and the Gastrointestinal Microbiota: A Review of Associations and Mechanisms (2015) Nutritional Review; Hedin CR et al. The Gut Microbiota of Siblings Offers Insights into Microbial Pathogenesis of Inflammatory Bowel Disease (2017) Gut Microbes.

Building better bones

There's more to bone health than genes. Bones are living tissue and constantly changing. Lifestyle factors, such as diet, can play a crucial role in building and maintaining strong bones. Dairy foods are uniquely rich in calcium, which plays a crucial role in bone health.

In the body, calcium combines with other minerals to form hard crystals that give bones their strength and structure.¹³ The benefits are particularly acute during childhood when eating habits are being formed, and bones are doing most of their growing.¹⁴

Facts

Low milk intake in childhood has been linked to increased risk – almost double – of bone fracture later in life.¹⁵

An increase in dairy intake among elderly people in residential care homes from 2 to 3.5 serves per day has been linked to a 33% reduction in fractures, a 46% reduction in hip fractures and an 11% reduction in falls.¹⁶

Calcium from dairy foods has greater bone mineral density benefits than equivalent calcium supplements.¹⁷ Scientists have suggested that the protein and lactose in dairy may enhance calcium balance by promoting absorption.



Promoting healthy teeth

Good oral hygiene requires more than a consistent brushing regime. Diet plays a crucial role in determining oral health. Dairy foods contain important anti-decay nutrients like calcium and phosphorous, as well as casein, a protein which forms a protective coating on tooth enamel.¹⁸

Studies have shown that dairy foods can reduce cavity risk¹⁹, and eating a small piece of cheese after consuming sugary products can mitigate tooth decay.

Facts

People with a higher intake of dairy have lower levels of *Streptococci Mutans*, a bacterium which causes tooth decay.²⁰

Recent studies have shown that milk can be used to decrease hypersensitivity of teeth following dental surgery.²¹



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14 Nguyen VH, School-Based Nutrition Interventions Can Improve Bone Health in Children and Adolescents (2021) Osteoporosis and Sarcopenia.

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Reducing risk of chronic disease

Dairy foods play an important role in maintaining a healthy diet and reducing the risk of serious diseases.

A healthy lifestyle and diet can help reduce risk of heart disease – studies show that people who regularly consume milk, cheese and yoghurt are more likely to have a reduced risk of heart disease than those who don't.

A healthy diet that includes a variety of foods from the five food groups – such as fruit, vegetables, whole grains, milk, cheese and yoghurt can help to manage blood pressure. Additionally, multiple studies indicate that three daily serves of dairy is linked to a reduced risk of hypertension and colorectal cancer.²²

A review which combined the effects of 16 separate studies and over 520,000 people found that higher intakes of all varieties of milk, yoghurt and cheese was linked to a 11% reduction in the risk of type 2 diabetes, compared to people eating less dairy foods.



Maintaining weight

Research shows that eating dairy products – including milk, cheese, and yoghurt – as part of a healthy, balanced diet is not linked with weight gain or obesity.²³

In fact, several studies have shown that including dairy foods in a reduced-calorie diet can promote healthy weight loss – while maintaining lean muscle mass.²⁴

This is because of dairy's natural matrix of protein, calcium, and other components such as conjugated linoleic acid (CLA), medium-chain fatty acids and bioactive peptides. Together, this unique combination helps with appetite regulation, building lean body mass and reducing body fat.



More information

For additional information visit: dairy.com.au/health

22 National Health and Medical Research Council. Australian Dietary Guidelines Canberra: Commonwealth of Australia; 2013.

23 National Health and Medical Research Council. Australian Dietary Guidelines Canberra: Commonwealth of Australia; 2013.

24 Abargouei et al (2012) Int J Obes. 36(12):1485-93

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Dairy Australia Limited ABN 60 105 227 987
E enquiries@dairyaustralia.com.au
T +61 3 9694 3777
F +61 3 9694 3701
dairyaustralia.com.au