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Coconut Milk Benefit Human Body

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The low calorie and high nutrition content of coconut milk products have increased their demand in the food and beverage industry. Coconut milk products such as coconut milk powder and coconut cream powder are used in various recipes because of their sweet and mild taste. Coconut milk products are often associated with various health benefits. Their consumption has been indicated to help lower blood pressure, cholesterol, improve kidney health, and prevent heart attacks and strokes. Coupled with this, consumer preferences for a vegetarian diet, has been increasing the adoption of coconut milk products. Coconut milk is a milky-white, opaque liquid made from the coconuts pulp. Coconut milk is a popular food ingredient used Southeast Asian, Oceania, South Asian, and East African cuisines. Coconut milk is used to produce a variety of popular Southeast Asian beverages. Condole is a common iced drink, made with chilled coconut milk. It also is used in preparation of various hot drinks in Indonesia. In southern China, coconut milk products are used to prepare beverages diluted with water. According to FMI's analysis, coconut milk products sales have grown at a 5.4% CAGR between 2016 and 2020. This trend also is picking up pace in India. Consumers in India are showing greater willingness to pay more for a product that has health benefits. This has been encouraging some of the leading players to produce organic, vegan, and gluten-free coconut milk.

To make coconut milk, a person <u>will scrape</u> Trusted Source or grate the flesh of mature coconuts and then squeeze it through a strainer, such as cheesecloth, to extract the liquid. Thick milk retains more fat than thin milk.

Coconut milk can be thick or thin. Thin coconut milk comes from the squeezed coconut flesh left inside the cheesecloth. Manufacturers mix it with warm water and strain it through cheesecloth a second time. The resulting liquid is much thinner.

Manufacturers <u>add</u> Trusted Source stabilizers to prevent the contents from separating and ensure a smooth finish. Coconut milk is also available in powdered form.



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Coconut milk is classified as either thick or thin based on consistency and how much it's processed. Thick: Solid coconut flesh is finely grated and either boiled or simmered in water. The mixture is then strained through cheesecloth to produce thick coconut milk.

Nutrition in coconut milk

Coconut milk contains high levels of saturated fat, making it a <u>calorie</u>-rich food. It also contains <u>vitamins</u> and minerals, but the nutritional contents vary by product. Coconut milk drinks, for example, have a different nutritional profile than canned coconut milk. Here is the nutritional profile for <u>240 grams (g)</u>Trusted Source — or approximately 1 cup — of raw, unsweetened coconut milk for cooking:

calories: 552water: 162 gprotein: 5.5 gfat: 57.1 g

• carbohydrates: 13.3 g

• calcium: 38.4 milligrams (mg)

potassium: 631 mgmagnesium: 88.8 mg

• iron: 3.94 mg

• vitamin C: 6.72 mg

The nutritional profile per cup, or <u>244 trusted</u> Source, of sweetened coconut milk beverage is as follows:

calories: 75.6water: 231 gprotein: 0.51 gfat: 5.08 g

• carbohydrates: 7.12 g

calcium: 459 mgpotassium: 46.4 mg

The drink contains no vitamin C, but it is fortified with calcium and vitamins A, B12, and D2



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Increasing Popularity of Asian Cuisine Driving the Increased Demand for Coconut Milk Products

Asian cuisines are gaining wide popularity among consumers. Consumers around the world are developing a taste for dishes that contain coconut or coconut milk products. This is a key factor that is expected to drive the growth of the coconut milk products market during the forecast period. Coconut milk products are used extensively in Asian cuisines. The demand for Asian food in regions such as Europe, Canada, and the U.S. has increased substantially, owing to increasing migrating and tourist population.

Increasing Popularity of Various Plant-based Substitutes Accelerating the Demand for Coconut Milk Products

Increasing health and wellness consciousness has led to consumers opting for products that are healthier and more natural. Thus, the market for plant-based substitutes is gaining wide acceptance and popularity all around the world. This factor is further promoting the growth of plant-based coconut milk products.

Multi-purpose Usage of Coconut Milk Products Increasing their Success Factor

Coconut milk products have been witnessing increasing demand for use as substitutes for dairy milk, especially in a number of sweet and savory dishes. Coconut milk products have been traditionally used for cooking purposes, in both, vegetarian and non-vegetarian dishes. Coconut milk also finds application in frozen desserts, pastries, ice creams, sweets etc. It is also used as a thickener in various other dishes, especially in high-end hotel chains that offer Asian cuisines. Coconut milk products are also used in personal care and cosmetic products such as lotions, moisturizers, conditioners, masks, and other products due to its rich oil content and skin soothing properties.

Chemical composition The main components of coconut milk are water (ca. 50%), fat and protein [7], whereas coconut water contains mainly water (ca. 94%, Table 1). Unlike coconut water, coconut milk, which is the source of coconut oil, is generally not used in plant tissue culture medium formulations.



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Coconut milk and diabetes

Known for its very nutritious properties, coconut milk is already proven to be great sustenance for individuals with diabetes. It is used in many different dishes, with high regard to the benefits it provides to many people, not just for those who are diagnosed with diabetes, but for healthy people as well.

Where do we get coconut milk? The said extract is squeezed and withdrawn from the meat of a ripe coconut. If you have already eaten that white meat inside its hard shell, then you'll know that portion is what people get the milk from. It contains a lot of minerals and vitamins.

Some of the most known dishes where coconut milk is used are curries, gravy for meatballs, sauces for a variety of cuisines, and even soups. Aside from its incredibly nutritious components, it can make any dish delicious to the taste buds and satisfyingly appetizing

Effects on Weight and Metabolism

There's some evidence that the MCT fats in coconut milk may benefit weight loss, body composition and metabolism.

Lauric acid makes up about 50% of coconut oil. It can be classified as both a long-chain fatty acid and a medium-chain, as its chain length and metabolic effects are intermediate between the two (3Trusted Source).

But coconut oil also contains 12% true medium-chain fatty acids — capric acid and caprylic acid.

Unlike longer-chain fats, MCTs go from the digestive tract directly to your liver, where they're used for energy or ketone production. They are less likely to be stored as fat (4).

Research also suggests that MCTs may help reduce appetite and decrease calorie intake compared to other fats (5Trusted Source, 6Trusted Source, 7Trusted Source, and 8Trusted Source).

In a small study, overweight men who consumed 20 grams of MCT oil at breakfast ate 272 fewer calories at lunch than those consuming corn oil (8 Trusted Source).



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What's more, MCTs can boost calorie expenditure and fat burning — at least temporarily (9Trusted Source, 10Trusted Source, 11Trusted Source).

However, the small amounts of MCTs found in coconut milk are unlikely to have any significant effects on body weight or metabolism.

A few controlled studies in obese individuals and people with heart disease suggest that eating <u>coconut oil</u> reduced waist circumference. But coconut oil had no effects on body weight (<u>12</u>Trusted Source, <u>13</u>Trusted Source, <u>and 14Trusted</u> Source).

No studies have directly examined how coconut milk affects weight and metabolism. Further studies are needed before any claims can be made.

Other Potential Health Benefits

Coconut milk may also:

- **Reduce inflammation:** Animal studies found that coconut extract and coconut oil <u>reduced inflammation</u> and swelling in injured rats and mice (<u>22</u>Trusted Source, 23Trusted Source, 24Trusted Source).
- **Decrease stomach ulcer size:** In one study, coconut milk reduced stomach ulcer size in rats by 54% a result comparable to the effect of an anti-ulcer drug (<u>25</u>Trusted Source).
- **Fight viruses and bacteria:** Test-tube studies suggest that lauric acid may reduce the levels of viruses and bacteria that cause infections. This includes those that reside in your mouth (26Trusted Source, 27Trusted Source, 28Trusted Source).



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References

- [1]. $^{\circ}$ Jump up to: $^{\underline{a}}$ $^{\underline{b}}$ $^{\underline{c}}$ $^{\underline{d}}$ $^{\underline{n}}$ $^{\underline{c}}$ Coconut milk" (PDF). Philippine Coconut Authority. 2014. Retrieved 22 September 2016.
- [2]. ^ Jump up to: a b c d e f g h i NIIR Board of Consultants and Engineers (2006). The Complete Book on Coconut & Coconut Products (Cultivation and Processing). Asia Pacific Business Press Inc. p. 274. ISBN 978-81-7833-007-5.
- [3]. ^ Jump up to: ^a b c d e f g Tetra Pak (2016). "The Chemistry of Coconut Milk and Cream". <u>Coconut Handbook</u>. Tetra Pak International S.A. <u>ISBN</u> 978-91-7773-948-7.
- [4]. ^ Jump up to: $\frac{a \ b \ c \ d \ e}{Lewis}$, Susana; Lewis, Charles (2012). A Taste of Paradise. Psy Press. p. 18. ISBN 978-1-938318-00-9.
- [5]. ^ Jump up to: ^a ^b Bridges, Meagan (2018). "Moo-ove Over, Cow's Milk: The Rise of Plant-Based Dairy Alternatives". In Carol Rees, Parrish (ed.). <u>Practical Gastroenterology</u> (PDF). Nutrition Issues in Gastroenterology, Series #171. pp. 20–27.
- [6]. <u>^ "Coconut milk, cream, and sweetened cream"</u>. ochef.com. Archived from <u>the</u> original on 5 March 2016.
- [7]. ^ Jump up to: ^{a b} <u>"Coconut milk, raw (liquid expressed from grated meat and water) per 100 g"</u>. Nutritiondata.com by Conde Nast; republished from the <u>USDA National Nutrient Database</u>, version SR-21. 2014. Retrieved 13 May 2016.
- [8]. <u>^ Henni S (13 September 2010). "Coconut water"</u>. American Society for Nutrition. Retrieved 6 March 2017.
- [9]. <u>^ Tetra Pak (2016)</u>. "Coconut Food Production". <u>Coconut Handbook</u>. Tetra Pak International S.A. <u>ISBN 978-91-7773-948-7</u>.
- [10].^ Jump up to: ^{a b c d e f g} Solomon, Charmaine (2014). <u>The Complete Asian Cookbook:</u> <u>Indonesia, Malaysia & Singapore</u>. Hardie Grant Books. <u>ISBN</u> 978-1-74358-170-4.
- [11].^ Jump up to: ^a ^b Birosel, D. M.; Gonzales, Antonia L.; Santos, Milagros P. (1963). <u>"The nature and properties of the emulsifier system of oil globules in coconut milk and cream"</u> (PDF). The Philippine Journal of Science. **92** (1): 1–15.
- [12]. Kurian, Alice; Peter, K.V. (2007). Commercial Crops Technology. New India Publishing. pp. 202–203. ISBN 9788189422523.
- [13].^ Jump up to: ^{a b} Grimwood, Brian E. (1975). <u>Coconut Palm Products: Their Processing</u> in <u>Developing Countries</u>. Food & Agriculture Organization. pp. 183–187. <u>ISBN 978-92-5-100853-9</u>.
- [14]. Ottenheimer, Harriet Joseph (2018). "Zilo and Zahula". In Sarathi, Akshay (ed.). Early Maritime Cultures in East Africa and the Western Indian Ocean: Papers from a conference held at the University of Wisconsin-Madison (African Studies



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- *Program)* 23-24 October 2015, with additional contributions. Archaeopress Publishing Ltd. p. 158. <u>ISBN</u> 978-1-78491-713-5.
- [15]. Kirch, Patrick V. (2010). "Controlled Comparison and Polynesian Cultural Evolution". In Diamond, Jared; Robinson, James A. (eds.). Natural Experiments of History. Harvard University Press. p. 22. ISBN 978-0-674-07672-3.
- [16]. Lew, Christopher. "Tracing the origin of the coconut (Cocos nucifera L.)". Prized Writing 2018-2019. University of California, Davis: 143–157.
- [17]. \(^1\) Jump up to: \(^2\) \(^1\) Iddison, Phil. \(^1\) Katai: Coconut Scrapers'' (PDF). Oxford Symposium on Food & Cookery.
- [18]. Jump up to: *\frac{a}{b} Kirch, Patrick Vinton; Green, Roger C. (2001). *\frac{Hawaiki, Ancestral}{Polynesia: An Essay in Historical Anthropology}. Cambridge University Press. p. 152. *\frac{ISBN}{2} 978-0-521-78879-3.*
- [19]. Pakkawan, Assawin. "Traditional coconut graters on show at southern funeral". Bangkok Post. Retrieved 18 April 2019.
- [20]. Aranas, Jennifer (2012). The Filipino-American Kitchen: Traditional Recipes, Contemporary Flavors. Tuttle Publishing. ISBN 978-1-4629-0491-4.
- [21]. Snodgrass, Mary Ellen (2004). Encyclopedia of Kitchen History. Routledge. p. 233. ISBN 978-1-135-45572-9.
- [22].^ Jump up to: $\frac{a \ b \ c \ d}{}$ Philippine Coconut Authority (2014). Coconut Processing <u>Technologies: Coconut Milk</u> (PDF). FPDD Guide No. 2 - Series of 2014. Department of Agriculture, Republic of the Philippines.
- [23]. Naik, Aduja; Venu, G.V.; Prakash, Maya; Raghavarao, K.S.M.S. (21 November 2013). "Dehydration of coconut skim milk and evaluation of functional properties". CyTA Journal of Food. 12 (3): 227–234. doi:10.1080/19476337.2013.833296. S2CID 95833418.
- [24]. Khuenpet, Krittiya; Jittanit, Weerachet; Hongha, Napat; Pairojkul, Sajja; Rainis, R.; Bin Abu Bakar, M.N.; Ezuer Shafii, J. (6 January 2016). "UHT Skim Coconut Milk Production and Its Quality". SHS Web of Conferences. 23: 03002. doi:10.1051/shsconf/20162303002.
- [25]. <u>^</u> Mathew, Biju, ed. (2015). <u>Anchor India 2015</u>. Info Kerala. p. 252. <u>ISBN 978-81-921284-9-8</u>.
- [26]. Tanafranca, Daisy E. (1984). "Traditional Processed Foods and Their Processing Technologies In The Philippines". Proceedings of the International Symposium on Agricultural Product Processing and Technology: 64–77.
- [27]. Jump up to: ^a b Capuso, S.A.; Celestino, V.G.; Gonzales, A.L. (1981). "Studies on the isolation and functional characteristics of protein from coconut skim milk". The Philippine Journal of Science. 110 (1–2): 25–32.



ISSN: 2348-1358 Impact Factor: 6.901 NAAS Rating: 3.77

- [28]. Ghosh, D.K. (2015). "Postharvest, Product Diversification and Value Addition in Coconut". In Sharangi, Amit Baran; Datta, Suchand (eds.). Value Addition of Horticultural Crops: Recent Trends and Future Directions. Springer. p. 131. ISBN 978-81-322-2262-0.
- [29]. Davide, C.L.; Peralta, C.N.; Sarmago, L.G.; Pagsuberon, G.J. (1986). "A new technology for blue cheese production from coconut milk skimmilk powder blends". Philippine Journal of Coconut Studies. 11 (2): 51–58.
- [30]. Davide, Clara L.; Reforma, Cleofe P.; Sarmago, Ione G.; Pagsuberon, Giselle J.; Fuentes, Portia A. (1991). "Composition, sensory quality, and acceptability of fresh and ripened cheeses made from skimmilk powder-coconut milk blends". NRCP Research Bulletin. 42 (1–4): 288–318.