

REVIEW ARTICLE

Curd: A Nutraceutical Treasure with Time-Honored and Scientifically Supported Health Benefits

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ABSTRACT

Curd, integral to Indian culinary heritage, stands out for both its delectable taste and potent medicinal properties. Positioned as a key player in the nutraceutical landscape, its health benefits are meticulously explored, encompassing diverse curd types, their sources, tastes, and applications in medicine. Curd's unique attributes, including its sweetish-sour taste, hot potency, and sour post-digestive taste, contribute to its distinct qualities. Influenced by factors such as milk type, fermentation process, and milking conditions, curd's properties impact relishing quality, promotion of body tissues, digestive power, and strength. Insights into different curd types reveal varied effects, from bovine milk-derived curd being demulcent and culturally significant to goat's milk curd pacifying *Kapha* and *Pitta*, aiding digestion, and holding potential benefits for various conditions. Buffalo's milk curd, with a sweet aftertaste, exhibits spermatogenic properties and balances *Vata* and *Pitta* while enhancing *Kapha*. Exploring diverse properties of curd varieties highlights unique effects, such as well-strained curd alleviating *Vata*, enhancing *Kapha*, and being demulcent and nourishing. Curd from boiled milk contributes to taste, *dhatu*s, metabolic power, and strength. However, responsible consumption is vital, as daily intake may lead to adverse effects. Guidelines recommend judicious addition of adjuvants to curd for dietary and medicinal purposes. In conclusion, curd, with its historical and nutraceutical significance, remains a dietary treasure in Indian culture, aligning with modern scientific research and Ayurvedic wisdom for a health-conscious lifestyle. This comprehensive exploration delves into the nutraceutical value of diverse curd types, considering their sources, tastes, and applications in external and internal medicine.

1. INTRODUCTION

Curd, a beloved dietary staple with deep historical roots in Indian culture, is not only celebrated for its delicious taste but also for its extensive medicinal properties. In the evolving world of nutraceuticals, where the emphasis is on the health benefits of food, curd has gained considerable attention as a valuable dietary addition. This article explores the nutraceutical value of different types of curd, taking into account their sources, tastes, and applications, whether in external, internal medicine, or purificatory therapy. We also delve into recent scientific research that supports the traditional wisdom surrounding curd's health benefits.

2. THE UNIQUE ATTRIBUTES OF CURD

Curd is known for its distinctive attributes, which include a sweetish-sour taste, a hot potency, and a sour post-digestive taste.^[1] One notable

characteristic of curd is its potential heaviness, which can vary depending on factors such as the type and nature of the milk used and the fermentation process.

The milk collected in the morning tends to produce curd that is typically heavy, constipation, and imbued with a cooling quality due to the soma property of the night and the inactivity during those hours. On the other hand, milk collected in the afternoon yields curd that helps alleviate tiredness, pacifies *vata*, and is particularly beneficial for the eyes. This is attributed to the animals being heated by the sun and engaging in physical activity and movements in the open air during the day.^[2] It can be assumed that curd made from such distinct milks may exhibit varying attributes in relation to these unique characteristics, reflecting the influence of the animals' habitat and the specific time of milking. Additionally, curd possesses unique qualities, such as being relishing, promoting "*Dhatu*" (body tissues), enhancing digestive power, improving strength and immunity, and pacifying *Vata*.^[3] Acharya Sushruta has delineated seven distinct curd classifications, which encompass sweet, sour, and excessively sour, improperly formed,

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boiled milk-derived, supernatant cream layer, and fat-free curd.^[2] The rate of fermentation plays a pivotal role in determining the properties of curd. Various types of curd are distinguished by their sweetness and acidity levels. Categories include “*Mandaka*” (unfermented curd), “*Madhura*” (sweet), “*Madhura amla*” (sweetish-sour), “*Amla*” (sour), and “*Atyamla*” (sourer). Sweet curd, with its hot potency, sweet post-digestive taste, and unctuous quality, is particularly beneficial for mitigating *Vata*.^[4]

3. INSIGHTS INTO THE PROPERTIES OF DIFFERENT TYPES OF CURD

Curd derived from bovine milk displays demulcent characteristics, featuring a sweet aftertaste. It also functions as an appetizer, augmenting physical strength and ameliorating *vata* imbalances. Notably, it holds cultural and religious significance and enhances the desire for food intake.

Similarly, curd crafted from goat’s milk exerts *Kapha* and *Pitta*-pacifying effects, characterized by its lightweight nature that alleviates *Vata* imbalances and aids in digestive well-being. Additionally, its consumption offers potential advantages for conditions such as piles, asthma, and cough while also contributing to improved metabolic activity and an increased appetite.

Curd prepared from buffalo’s milk is distinguished by its pronounced sweet aftertaste and is known for its spermatogenic properties. It effectively mitigates *Vata* and *Pitta* imbalances, concurrently promoting an increase in *Kapha*. Furthermore, it is particularly recognized for its demulcent attributes.^[2]

4. DIVERSE PROPERTIES OF CURD VARIETIES

Curd exhibits properties that alleviate *Vata*, enhance *Kapha*, and are both demulcent and nourishing. It maintains a moderate effect on *Pitta* while also stimulating an increased appetite for food. Curd prepared from boiled milk is renowned for its beneficial attributes, effectively alleviating *Vata* and *Pitta* imbalances. It contributes to the enhancement of taste, *Dhatus*, metabolic power, and physical strength. The cream layer that forms on the surface of curd is dense, possessing spermatogenic properties and *vata*-pacifying effects. Simultaneously, it may reduce metabolic power while increasing expectoration and seminal discharge. In contrast, curd from which fat has been removed is characterized by its dryness, astringency, and constipation properties. It tends to aggravate *vata* while serving as an appetizer. It is lighter in nature, astringent, and has a positive impact on taste.^[5]

5. CURD IN THERAPEUTIC APPLICATIONS

Curd is not only a dietary component but also a valuable ingredient in various therapeutic formulations in Ayurveda. It plays a crucial role in addressing conditions involving vitiated *Vata*, *Amashaya* (stomach-related pathogenesis), *Rasavahasrotos* (channels responsible for carrying *Rasa*), and chronic ailments.

Curd’s hot potency aids in the digestion of *Ama*, making it beneficial in alleviating conditions such as acute and chronic rhinitis. Additionally, there are suggestions in various medical systems that curd consumption may help reduce allergy symptoms through increased immunoglobulin levels. However, the long-term effects of curd on allergies require further investigation.

Curd is commonly recommended for individuals dealing with gastrointestinal disorders such as diarrhea, irritable bowel syndrome, and hemorrhoids. Scientific studies have demonstrated its effectiveness

in preventing and treating acute diarrhea, particularly in children. Furthermore, curd can be a suitable dietary choice for individuals with lactose intolerance.

For individuals with improper functioning of *Medo Dhatwagni*, which contributes to hypercholesterolemia, curd offers a viable choice. Specific beneficial bacteria in yogurt, such as *Lactobacillus acidophilus*, have been shown to assimilate cholesterol through enzymatic deconjugation, leading to a reduction in low-density lipids.

6. CURD FOR EXTERNAL MEDICINAL APPLICATIONS

Curd’s cooling properties and its role as a base for preparations make it a useful adjuvant in external treatments (*Bahirparimarjana chikitsa*). It is employed in conditions such as gouty arthritis and *Urustambha*, supporting therapeutic applications such as *Lepa* (external application), *Seka* (pouring), and *Prakshalana* (washing).^[6]

7. CURD AS A PROBIOTIC POWERHOUSE

Curd is celebrated for its probiotic potential and health benefits. It is a rich source of essential vitamins and minerals, including calcium, vitamin D, vitamin B12, and potassium, which are crucial for overall health and have higher bioavailability compared to other dairy products. Curd also contains folates, vital for DNA synthesis and repair. Moreover, curd is low in lactose and galactose, making it a favorable choice for individuals with lactose intolerance.

The curd’s health benefits are its live bacterial strains, including *Lactobacillus bulgaricus*, *Streptococcus thermophilus*, *Lactococcus lactis*, *L. helveticus*, *L. cremoris*, *L. casei*, and *L. acidophilus*, recognized as probiotics. These beneficial microbes promote improved gut health, aid digestion, reduce the risk of diarrhea, and may offer relief from irritable bowel syndrome. Curd’s probiotics also support enhanced immune function and can assist in lactose digestion, making it a suitable option for those with lactose intolerance. Furthermore, emerging research suggests a connection between gut health and mental well-being, with curd’s probiotics potentially playing a role in supporting mental equilibrium.^[7]

8. CAUTIONS AND CONSIDERATIONS FOR RESPONSIBLE CURD CONSUMPTION

While curd offers numerous benefits, it should not be consumed daily, as this can disrupt digestion and lead to various ailments. Potential side effects of non-judicious curd consumption include herpes, bleeding disorders, skin diseases, anemia, dizziness, jaundice, edema, and diabetes. There are also specific guidelines for adding adjuvants to curd, such as ghee, honey, sugar, Indian gooseberry, and green gram soup, recommended as dietary and medicinal additions to curd.^[1]

9. DISCUSSION

The article on curd offers a thorough exploration of its significance in Indian culture, emphasizing not only its delightful taste but also its profound medicinal properties. Delving into the nutraceutical value of various curd types, the discussion considers factors such as milk sources, tastes, and applications in both internal medicine and therapy. The piece accentuates the unique attributes of curd, shaped by the type of milk, fermentation process, and milking conditions. With a nod to Acharya Sushruta’s classifications, it navigates through distinct curd varieties, shedding light on their specific benefits. The article extends beyond culinary aspects to delve into curd’s therapeutic applications, from addressing gastrointestinal disorders to its probiotic

potential. Emphasizing responsible consumption, the discussion aligns traditional wisdom with modern research, positioning curd as a dietary treasure with multifaceted health benefits.

10. CONCLUSION

Curd, with its rich historical significance and multifaceted nutraceutical properties, continues to be a dietary treasure in Indian culture and traditional medicine systems. It offers a spectrum of potential health benefits, from improving digestion and immune function to alleviating allergies and gastrointestinal disorders. However, responsible and balanced consumption is the key to reaping the full benefits of curd while avoiding potential adverse effects. As modern scientific research further illuminates the therapeutic potential of curd, it aligns with the time-honored wisdom of Ayurveda and strengthens the case for its inclusion in a health-conscious diet.

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REFERENCES

1. Murthy S. Ashtanga Hridayam. (Reprint ed). Sutra Sthana. Ch. 5. Varanasi: Chowkhamba Krishnadas Academy; 2021.
2. Singhal GD. Susrutha Samhitha. (Reprint ed). Sutra Sthana. Ch. 45. New Delhi: Chaukhamba Sanskrit Prathishthan; 2021.
3. Sharma RK. Sutra Sthana. Caraka Samhita Text with English Translation & Critical Exposition Based on Cakrapani Datta's Ayurveda Deepika. Ch. 27. Varanasi: Choukamba Sanskrit Series Office; 2020.
4. Murthy S. Bhavaprakasha. (Reprint ed). Mishra Prakarana, Dadhi Varga. Varanasi: Chowkhamba Krishnadas Academy; 2011.
5. Murthy S. Ashtanga Hridayam. (Reprint ed). Uthara Sthana. Ch. 5. Varanasi: Chowkhamba Krishnadas Academy; 2021.
6. Acharya YT. Charaka Samhita. Agnivesha, Cakrapani Sanskrit Commentary, Chikitsa Sthana. Ch. 24. Varanasi: Chaukhambha Surbharati Prakashana; 2007.
7. Fernandez MA, Murette A. Potential Health Benefits of Combining Yogurt and Fruits Based on their Probiotic and Prebiotic Properties. *Adv Nutr* 2017;8:155S-64.

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