

Milk: A Real, Raw, Natural & Perfect Food

by Catherine Haug

Posted on [The EssentialList](#), January 18, 2015 (from June 2007 original article)

Bottle of raw milk photo, right, from [Wikimedia Commons](#)

Main Topics: **1.** Health Benefits of Milk; **2.** What About Sour Milk - Won't it Make Me Sick? **3.** What About Lactose Intolerance? **4.** What About Milk Fat - Won't It Make Me Fat? **5.** References

Back in the days when raw milk was the norm and milk was delivered by the dairy to your door, milk was a beloved and healthful beverage. After all, Mothers' milk is the first food for new-borns of every mammal species. It is considered a "perfect food" because it contains all the basic nutrients essential for life, including health-supporting microbes (probiotics) that protect the newborn from disease.

Many people argue that milk was never intended for consumption by adults, yet there is evidence of the importance of raw milk for all ages, dating far back in history.

Health Benefits of Raw Milk

Nutritional Value of Raw Milk:

Perhaps the greatest health benefit of drinking raw milk is its great nutritional value, being nearly a perfect food, especially when it comes from pastured dairy animals. It contains highly available vitamins, minerals, carbohydrates, fats, and proteins. It also contains viable enzymes that help not only to digest milk, but also to assimilate the other nutrients available in the milk.

- ▶ Raw milk contains **viable, active natural vitamins**; it is not fortified with synthetic vitamins like commercial milk. Chromatography has been used to demonstrate that synthetic vitamins are not the same as natural vitamins. Many babies fed pasteurized milk developed scurvy-like symptoms, whereas babies fed raw milk did not. Pasteurized, fortified milk (with synthetic vitamins added) produces the same deficiencies as those from non-fortified, pasteurized milk. (from *Certified Milk Magazine*, October 1927 as reported by Victor E. Levine, Prof. of Biological Chemistry & Nutrition, Creighton University School of Medicine (3g))
- ▶ Raw milk contains **viable, active enzymes**, that are destroyed by pasteurization (1,3), including:

Milk: A Real, Raw, Natural and Perfect Food

- **Lactase**: digests sugars in milk (lactose);
 - **Lipase**: breaks down fat molecules so the components can be absorbed. It is also essential for proper absorption of fat-soluble vitamins A, D and K present in raw milk;
 - **Phosphatase**: required for absorption of calcium and other minerals in milk, and from other ingested foods.
- ▶ Raw milk contains **other vital important proteins** in two fractions: casein and whey. When milk sours and separates, the casein fraction forms the curd, and the whey fraction is the liquid.
- **Casein fraction** provides amino acids, carbohydrates, and the minerals calcium and phosphorous. However, in ultra-pasteurized milk, the casein is denatured (it's geometry is altered) in such a way that it will no longer curd, and the calcium is no longer available for absorption. Ultra-pasteurized milk can not be used to make cheese unless calcium chloride is added. The casein in raw milk or regular pasteurized milk (Vat and HTST) is not denatured in this way and is still bioavailable.
 - Casein protein is digested slowly, providing a sustained supply of amino acids over several hours, allowing the body to retain and use those amino acids more effectively. it is also excellent for building muscle mass. (6)
 - **Whey fraction** from raw milk is rich in probiotics, which help to digest complex carbohydrates (fiber) in the diet, maintain a healthy gut, and support a strong immune system. It is an abundant source of branched-chain amino acids (BCAAs) such as leucine, which are used to stimulate protein synthesis. In this way it works with casein to build strong muscles.
 - The probiotics in whey are destroyed when milk is pasteurized; however, the culturing of pasteurized milk, as in the making of yogurt and kefir, introduces new (different) species to the whey fraction.

Immunoprotective Value of Raw Milk:

The second greatest benefit is its immunoprotective value. Infants are born with little resistance to disease; what protects them from infection are the immune factors in colostrum and raw mother's milk. The same is true of raw milk from other sources as well: cows, sheep, goats, horses, water buffalo, yak, and so on.

- ▶ **Protection from bacterial contamination, such as salmonella and lysteria**: Natural milk in the mother's breast/udder is rich in nutrients and probiotic bacteria. These probiotics are beneficial to the health of the infant (and other consumers of the milk), imparting immune protection and other

benefits. These good bacteria actually prohibit the growth and proliferation of pathogenic (bad, disease-causing) bacteria.

Raw milk contains enzymes and antibodies that make the milk less susceptible to contamination by outside bacteria. For example, nisin and lacto-peroxidase protect from contamination by salmonella and hysteria (11).

In 1958, a salmonella outbreak in California was attributed to contaminated raw milk. However, repeated tests of the milk samples and of the herds that produced the milk could find no presence of the salmonella bacteria. During the 50 years following that outbreak, there were NO reported cases of salmonella in California, among people consuming raw milk (3b).

- ▶ **Protection from viruses:** Raw milk also contains an anti-viral agent called ribonuclease. (Matthews, et al, in *The Lancet*, December 25,1976, pp. 1387 (3c)).
- ▶ **Treatment of ulcers:** Raw milk has been the treatment of choice for many patients with gastic disorders, and especially ulcers, for centuries (4f, 10). However, modern medicine does not recognize this benefit, probably because they use pasteurized milk for their studies/conclusions.
- ▶ **Treatment of infestation by worms:** Raw milk has also been used successfully to treat persons afflicted with worms, and to protect them from further infestation. This protective quality has been attributed to casein, the largest protein fraction in milk; note however that this ability is lost when the milk is pasteurized. (*Science*, 75:225, February 20, 1932 (3d); *JAMA*, April 9, 1932 (3e); *JAMA* 83:83, 1924) (3f).
- ▶ **Treatment of TB (Tuberculosis) and other disease:** Raw milk has also been used to treat, as well as prevent disease. Hippocrates, the Father of Medicine, used raw milk to treat tuberculosis. Dr. J. E. Crewe, from the Mayo Clinic in Rochester MN, reported in 1923 that he uses raw milk extensively in the treatment of disease. (10) Note however that this ability is lost when the milk is pasteurized. (*Certified Milk Magazine*, January 1929 - not available online, but other articles that quote that article are available (3a))
- ▶ **Treatment and prevention of asthma:** Raw milk has also been shown to treat and prevent asthma. A recent Swiss study of nearly 15,000 children in 5 European countries clearly found that the one, single factor that reduced asthma substantially in all regions, was consumption of raw milk. Note however that this ability is lost when the milk is pasteurized. (The 'Parsifal

Study,' Clinical and Experimental Allergy, 37, 661 – 670, M. Waser, et. al. (3g)).

Hormonal Value of Raw Milk:

Dr. Crewe (of the Mayo Clinic) postulates that raw milk might provide some hormonal benefit. (10, 3a, 4f) (Cat's note: this ability may be lost when the milk is pasteurized).

- ▶ **Thyroid:** Patients with toxic thyroid disease show marked improvement when given a diet containing raw milk.
- ▶ **Prostate:** Men with enlarged prostate observed rapid and marked shrinkage of the gland when treated with raw milk; urinary infections, even without affliction of the prostate, also showed marked improvement with a raw milk diet.
- ▶ **Diabetes:** Raw milk treatment of people with diabetes allowed most patients to become “sugar-free in 4 - 10 weeks;” (10) remarkable since milk is high in lactose, a sugar. [Cat's note: the term ‘sugar free’ in Dr. Crewe's 1929 paper, meant ‘free of high blood sugar levels associated with diabetes.’]

Preservative Value of Raw Milk:

Buttermilk, cultured from raw milk, has been used for centuries and by many different peoples, to preserve meat. In America's pioneer days, housewives immersed meat in large crocks of raw buttermilk, to keep the meat fresh year round (American Association of Medical Milk Commissions, Proceedings 15th Annual Conference, 1921). Arabs have been preserving meat with raw camel milk for thousands of years. Icelanders of 200 years ago preserved sheep's heads in sour raw milk. (I know, ee-yooo!)

An American doctor decided to try this technique for himself, in 1908. He immersed a beefsteak in raw buttermilk and let it sit for 13 years. He found that after those 13 years, it was in a state of “perfect preservation, showing not the slightest taint or decay.” This same doctor emphasized that this would work only with clean, raw milk, and not with milk that has been boiled or pasteurized (American Association of Medical Milk Commissions, Proceedings 15th Annual Conference, 1921) (9).

None of these benefits survives ultra-pasteurization. NOT ONE.

While simple pasteurization (Vat or HTST) does preserve some of the benefits of raw milk, many are lost; and all are lost from ultra-pasteurization (the method used by most commercial dairies).

During pasteurization:

- Milk's proteins are denatured into something that is not healthful and may cause an allergic reaction;
- The absorbability of calcium is blocked by the denatured casein protein;
- Its essential fats are oxidized (4b);
- Its enzymes and natural antibiotics are deactivated, including the enzyme that makes the minerals available for absorption;
- Fat-soluble vitamin content (A, D and E) is reduced by up to 66%; vitamins C, B12 and B6 are mostly destroyed;
- The friendly, living, health-promoting probiotic bacteria are killed, allowing infection by and growth of pathogens to occur (4b);
- Destroys about 20 percent of the iodine available in raw milk which can cause constipation (4c);
- Encourages the growth of harmful bacteria (4c).

Why is Milk pasteurized? What harm will come from drinking pasteurized milk? Refer to my articles: [Why Pasteurize Milk?](#) and [The Problems with Commercial and Ultra-Pasteurized Milk](#)

What About Sour Milk; Won't It Make Me Sick?

Raw milk sours – cultures – naturally, producing lactic and other short-chain fatty acids such as butyric acid. The probiotic bacteria naturally present in the milk culture it into a new, healthful product, with a slightly sour, zingy taste (as in yogurt, buttermilk, sour cream, etc.). In many cultures, sour milk is given to invalids because it is an easily digested form of protein. It has also been used as a laxative, gently stimulating the gut's muscles to action. (13)

Unlike raw milk, pasteurized milk does not sour; instead, it spoils – putrefies – producing a “foul slime and puss that must be removed before the product can be ingested.” Putrefied pasteurized milk will make you sick, but naturally soured raw milk will not (2).

The same probiotic bacteria that cause milk to sour also protect the fresh raw milk from pathogenic bacteria to which it might be exposed. Once it is pasteurized, killing not only the bad but also the good bacteria, the milk is more susceptible to contamination and putrefaction (2, 4).

See my article [Why Pasteurize Milk?](#) for more on this topic.

What about Lactose Intolerance?

Many people are unable to consume milk because of lactose intolerance. This allergy causes severe digestive, and sometimes also respiratory, upset. It happens because they lack the lactase enzyme that breaks down lactose (milk sugar), or have insufficient good bugs in their gut to digest the lactose into the beneficial lactic acid. Many lactose intolerant people are able to consume milk if they supplement with lactase enzyme.

Often, the lactose intolerance disappears if the afflicted person switches to raw milk. This is because raw milk contains probiotic bacteria that produce natural lactase, the enzyme that converts lactose to lactic acid. The pasteurization process kills the natural good bugs present in raw milk that convert the lactose into beneficial lactic acid.

Those who still suffer from lactose intolerance, even after switching to raw milk, can often tolerate raw goat's milk. Milk is organized into globules of molecules that must be broken up in the digestive tract, before the nutrients can be digested. Goat's milk, like human milk, has smaller, more readily broken-up globules than cow's milk, and thus is more readily digested.

What About Milk Fat—Won't It Make Me Fat?

The rich fat in milk is called butterfat. It is 63% saturated, 32% monounsaturated, and less than 1% polyunsaturated. 12-15% of the saturated fats are short and medium-chain fatty acids, a special class of fats that are digested differently than the longer chain fatty acids. Many have beneficial properties such as protecting us from disease, and stimulating the immune system. The benefits of monounsaturated (omega-9) and polyunsaturated (omega-6 and -3) fats are already well established.

Butterfat from grass-fed (pastured) cows contains conjugated linoleic acid (CLA), a polyunsaturated fat that has remarkable properties, such as cancer prevention, and plays a role in weight control. A cortisone-like factor that prevents stiffness in the joints (arthritis), is also present in butterfat. This factor is heat sensitive, and is destroyed by the heat of pasteurization.

If non-homogenized milk is allowed to rest, the butterfat will rise to the top, forming a layer of cream above the protein-rich watery layer. The natural, fat-soluble vitamins A and D present in raw milk are removed if the cream is skimmed from the milk. These vitamins are destroyed by pasteurization, so commercial milk is fortified with synthetic vitamins.

Milk: A Real, Raw, Natural and Perfect Food

Old-fashioned cows allowed to graze in grassy pastures produce milk that is over 4% butterfat; modern commercial holsteins produce milk that is less than 3% butterfat in “whole” milk, and even less in low fat or skim milk. Many “experts” claim this lower fat content is a plus, but the truth is that one cannot receive all the benefits of raw milk without the presence of the full complement of butterfat. It’s a mute point with pasteurized milk, since most of the nutritive value of the milk is lost.

See also: my articles:

- [Butter & Buttermilk \(About\)](#) on this blog, and
- [Butter \(and other saturated fats\) is a health food!](#) on The EssentialList (7)

Low Fat Dieting

While most Americans believe that eating fat will make them fat, they are, for the most part, wrong. Oh yes, if they over-consume any kind of food, they are likely to gain weight. But the more common culprit in weight gain is overfeeding on carbohydrates, especially simple carbs like white flour and sugar, which are converted in the liver to fats for storage in the body’s fat cells.

The fat stored in our fat tissues is made primarily from excess dietary carbohydrates, not dietary fat. Dietary fat is put to much more immediate use, such as to protect our nerve tissues, and to be incorporated into the membranes of every cell, providing a barrier to unwanted intruders. Or it can be burned as fuel for muscle and brain cells, instead of burning carbohydrates; this is the basis of Paleo diet, low-carb and ketogenic dietary recommendations.

Isn’t Saturated Fat bad?

But, what about saturated fat? you ask. Isn’t it bad for you, and isn’t milk fat full of it? Yes, milk is high in saturated fat. You probably will not believe me when I tell you that saturated fat is not bad for you; you’ve been so well indoctrinated by the media, the corporate agriculture lobby (who want to create a market for their vegetable oils, at the expense of animal fats like butterfat), and your doctors who have been swayed by by the same influences, and also by the pharmaceutical reps.

Perhaps, if you won’t believe me, you might believe the cover of Time Magazine, June 12, 2014: Ending the War on Fat (8). See also my article on The EssentialList: [Butter \(and other saturated fats\) is a health food!](#) (7).

If you want to learn more, see my article on [Saturated Fats](#).

References:

1. Weston Price website: westonaprice.org/children/rawmilk.html and westonaprice.org/transition/dairy.html
2. RealMilk website: **2a.** realmilk.com/what.html, **2b.** realmilk.com/where.html, **2c.** realmilk.com/raw.html, **2d.** realmilk.com/homogenization.html, and **2e.** realmilk.com/rawvpasteur.html
3. karlloren.com/aajonus/p15.htm link no longer valid; instead see the following: **3a:** Certified Milk Magazine, October 1927 as reported by Victor E. Levine, Prof. of Biological Chemistry & Nutrition, Creighton University School of Medicine - see Google search: [Certified Milk Magazine, January 1929](#); **3b** Recommendation to City of Los Angeles in Favor of Raw Milk (tennesseansforrawmilk.com/wp-content/uploads/Supplemental-Report-for-raw-milk-final.pdf) [I continue to look for a better reference regarding the California salmonella outbreak history, since the original 'karlloren' reference no longer exists]; **3c:** The Lancet, December 25, 1976, pp. 1387: sciencedirect.com/science/article/pii/S014067367691922X, by Matthews, et al.; **3d:** Science, 75:225, February 20, 1932; **3e:** JAMA, April 9, 1932; **3f:** JAMA 83:83, 1924; **3g:** The 'Parsifal Study,' Clinical and Experimental Allergy, 37, 661 - 670, M. Waser, et. al.; ncbi.nlm.nih.gov/pubmed/17456213
4. Dr. Mercola's website: **4a.** mercola.com/2003/mar/26/pasteurized_milk.htm, **4b.** articles.mercola.com/sites/articles/archive/2004/04/24/raw-milk.aspx **4c.** articles.mercola.com/sites/articles/archive/2011/08/31/us-government-data-proves-that-raw-milk-is-safe.aspx; **4d.** articles.mercola.com/sites/articles/archive/2006/09/07/the-expert-are-wrong-about-raw-milk.aspx; **4e.** mercola.com/2002/feb/27/rbgh.htm; **4f.** articles.mercola.com/sites/articles/archive/2008/06/12/the-truth-about-milk.aspx
5. Lifeline Farm, a biodynamic enterprise in Montana's Bitterroot Valley: lifelinefarm.com/certified.php
6. SF Gate's Healthy Eating, on the functions of casein: healthyeating.sfgate.com/functions-protein-casein-10637.html
7. The EssentialList: Butter (and other saturated fats) is a health food! (essentialstuff.org/index.php/2014/06/23/Cat/butter-and-other-saturated-fats-is-a-health-food)
8. Time Magazine, June 12, 2014 (time.com/?pcd=hp-magmod#2863227/ending-the-war-on-fat)
9. [American Association of Medical Milk Commissions, Proceedings 15th Annual Conference, 1921](#); NOTE: I can no longer find this reference online, but the book *Raw Truth About Raw Milk* by William Campbell Douglas II M.D. (on Google books: books.google.com/books?id=WapaDQAAQBAJ), which makes several reference to this paper. This may be the same paper: animalsciencepublications.org/publications/jas/pdfs/20/1/JAN0200010201
10. Complete copy of article: THE MILK CURE: REAL MILK CURES MANY DISEASES, by Dr. J. M Crewe, MD, January 1929: realmilk.com/health/milk-cure

Milk: A Real, Raw, Natural and Perfect Food

11. Journal of Dairy Science, Volume 91, Issue 1, January 2008, Pages 70–75
“Antimicrobial Activity of Nisin, Reuterin, and the Lactoperoxidase System on *Listeria monocytogenes* and *Staphylococcus aureus* in Cuajada, a Semisolid Dairy Product Manufactured in Spain” by J.L. Arqués, et.al. ([sciencedirect.com/science/article/pii/S0022030208714383](https://www.sciencedirect.com/science/article/pii/S0022030208714383))
12. Other articles on Cat’s Kitchen: **12a.** Why Pasteurize Milk? (catsfork.com/CatsKitchen/why-pasteurize-milk); **12b.** The Problems with Commercial and Ultra-pasteurized Milk (catsfork.com/CatsKitchen/the-problems-with-commercial-ultra-pasteurized-milk)
13. Articles on sour (fermented) milk to treat constipation: **13a.** Beneficial Microbes, Volume 6, Number 3, 2015, pages 253-62, “Effect of fermented milk containing Lactobacillus casei strain Shirota on constipation-related symptoms and haemorrhoids in women during puerperium.” by T. Sakai, et.al. (ncbi.nlm.nih.gov/pubmed/25380801); **13b.** Minerva Gastroenterology Dietology, Volume 57, Number 2, June 2011, pages 117-21. “Use of probiotics for the treatment of constipation in Parkinson's disease patients” by Cassani E. (ncbi.nlm.nih.gov/pubmed/21587143)