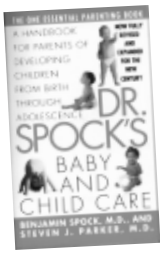
Cow's Milk

Nature's most perfect food ... for calves



"I no longer recommend dairy products after the age of two years... Of course, there was a time when cow's milk was considered very desirable. But research, along with clinical experience, has forced doctors and nutritionists to rethink this recommendation."

– Dr. Spock's Baby and Child Care, 1998 edition. P 331. Spock cites dairy's high fat content and lack of iron, complex carbohydrates and fibre.

"There is no human requirement for milk from a cow."

– Suzanne Havala, R.D.

"The African Bantu woman provides an excellent example of good health. Her diet is free of milk and still provides 250–400 mg of calcium from plant sources, which is half the amount consumed by Western women. Bantu women commonly have 10 babies during their life and breast feed each of them for about ten months. But even with this huge calcium drain and relatively low calcium intake, osteoporosis is relatively unknown among these women."

– John McDougall, M.D.

Trends

Canada has one of the highest rates of dairy consumption in the world (with sales of $11 billion in 2003), but maybe not for long. Between 1980 and 2003, annual milk consumption slipped from 103 to 85.3 litres per person. While consumption of butter has fallen to 3.16 kilograms a year from a high of eight, 40 years ago.

Source: www.dairyinfo.gc.ca

Human beings are the only species (other than house cats) to consume milk past childhood. We are also the only species to consume the milk of another species. Yet, at about the age of four, most people around the world begin to lose the ability to digest lactose, the carbohydrate found in milk. This results in a condition known as **lactose intolerance** that causes unpleasant abdominal symptoms, including stomach cramps, flatulence and diarrhea.

Lactose intolerance is a reality for 75% of the world population. In Canada, while many adult Caucasians have the ability to digest lactose, a large number of First Nations People, Asians, Africans and people of Jewish ancestry are lactose deficient.[1]

Even though consuming dairy is unnatural and problematic for many people, Canada's Food Guide recommends 2–4 servings per day (a serving is 1 cup of milk, 2 slices of cheese or 3/4 cup of yogurt).

Milk fat

Whole cow's milk is a high-fat fluid, designed by nature to turn a 60–70 lb (27–30 kg) calf into a 300–600 lb (135–275 kg) cow in one year.

High-fat dairy products such as cheese, butter and cream contain saturated fat. Saturated fat is the most important dietary factor involved in raising blood cholesterol levels. The consumption of high-fat dairy products has also been found to cause atherosclerosis, heart disease and stroke. Finland which has a death rate from heart disease that is among the highest in the world, also has one of the highest rates of dairy product consumption.[2]

Low-fat milk and cheese products are still significantly high in total fat, saturated fat and cholesterol. For example, 2% milk has become much more popular than homogenized milk, yet it still derives one third of its total calories from fat. Skim milk mozzarella with approximately 15% milk-fat is considered a low-fat cheese, yet a 1-ounce slice contains 5 grams of fat, totaling 56% calories from fat! So don't be fooled by the "skim milk" label.

The wide range of skimmed milk products available in grocery stores reflects health concerns over high-fat dairy products. But for many people, low-fat dairy products are still an unacceptable alternative.

Low-fat dairy products linked to hightened allergic responses

The high protein content of low-fat dairy products is actually more allergenic than dairy products with a high-fat content.[3] Dairy products are one of the leading causes of food allergies and food sensitivities causing allergic responses in people of all ages, especially infants and young children. It is estimated that 1–7% of infants are allergic to cow's milk protein. Infants who react to milk also have a greater likelihood of developing allergies to other foods.[4]

Many studies have shown allergies to dairy products to cause irritability, restlessness, hyperactivity, muscle pain, mental depression, abdominal pain, cramps or bloating, gas, diarrhea, bad breath, headaches, lack of energy, constipation, poor appetite, malabsorption of nutrients, nasal stuffiness, runny nose sinusitis, asthma, shortness of breath, rashes, eczema, and hives.[5]

Osteoporosis & the milk connection

North America has one of the highest consumptions of dairy products, and also the highest incidence of osteoporosis – a disease of brittle bones formed through the loss of calcium. We are bombarded with messages from the dairy bureau that we must consume copious quantities of dairy products to ward off this dreaded disease later in life. But that's not the whole story. Regardless of how much calcium you take in, the amount your body can actually absorb and retain matters more.

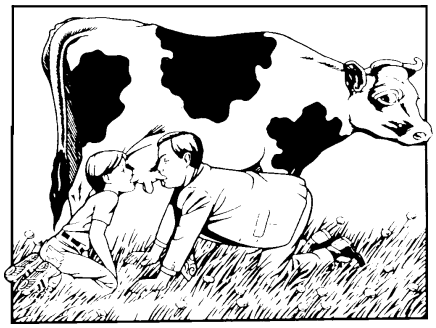
The high animal protein intake typical of North American diets can make it difficult to retain calcium. Digesting animal protein creates an acidic environment in the body. To neutralize the acid, the body may rob calcium from the bones. Years of this pattern can contribute in osteoporosis later in life.[6]

A study published in 2001, found that "elderly women with a high dietary ratio of animal to vegetable protein intake have more rapid neck bone loss and a greater risk of hip fracture than do those with a low ratio. This suggests that an increase in vegetable protein intake and a decrease in animal protein intake may decrease bone loss..." Several studies have found that "in comparison with animal protein, soy protein decreases calcium excretion, a result of the lower sulfur amino acid content of soy protein."[7]

To prevent osteoporosis it is also important to get enough Vitamin D, avoid smoking and limit coffee and alcohol. Weight-bearing exercise such as running, dancing and walking is especially helpful.

Women & dairy

According to gynecologist, Christiane Northrum, "Stopping dairy food often improves menstrual cramps, endometriosis pain, allergies, sinusitis and even recurrent vaginitis." Other problems associated with dairy food may include: benign breast conditions, chronic vaginal discharge, acne, fibroids, and chronic intestinal upset. "I can't help but think that there might be some correlation between overstimulation of the cow's mammary glands and subsequent overstimulation of our own, resulting in benign breast conditions."[8]



Milk is not a natural!
Human beings are the only species (other than house cats) to drink the milk of another species, and the only species to drink milk beyond infancy

Isn't yogurt a health food?

Yogurt has been hailed as a 'health food' because of its live bacterial enzyme cultures.

Whatever benefit humans may derive from yogurt cultures, consumers should be aware that these live bacterial enzymes are not available from **frozen yogurts**. A research study analyzing samples from leading frozen yogurt producers reports that the live count of the desirable bacterial cultures in these products is virtually nil. Many commercial frozen yogurts are high in fat, some as high in fat as ice cream. And low-fat versions are usually high in sugar. An average non-fat serving of frozen yogurt contains approximately seven teaspoons of sugar.

Even plain yogurt with no sugar added has the high protein content and related problems mentioned above.

Iron deficiency in infants

According to Frank Oski, the late Chairman of Pediatrics at Johns Hopkins Medical School, "Drinking large quantities of cow's milk has long been recognized to produce iron-deficiency anemia in infants... Cow's milk contains less than 1 mg of iron per quart. Very little of this iron is absorbed from the intestinal tract because other constituents of the milk bind with the iron... Many infants drink 1-2 quarts of milk per day. This tends to satisfy their hunger and they are left with very little appetite for the necessary iron-containing foods."[9] Breast milk is the best source of iron for infants.

Milk & ovarian cancer

Ovarian cancer is more common in Northern Europe than in Asian populations and the consumption of milk products may be the reason. Studies have found that there is a higher risk of ovarian cancer in women who consume lactose (sugar in milk). This was the conclusion of a study published in 2004, that tracked 80,326 participants in the Nurses' Health Study.[10]

Cow's milk & diabetes in children

Several studies have linked cow's milk to diabetes in children. Something in milk (possibly bovine serum albumin) may cause an immune reaction in diabetic children leading to the destruction of the body's insulin-producing cells. Breast-fed infants who are not fed cow's milk seem to have a measure of protection against diabetes. Avoiding cow's milk may delay or prevent diabetes in susceptible individuals. A 2003 study of 4,701 ten to sixteen year-old adolescents from 11 European countries found that cow's milk and animal product consumption were associated with higher rates of type 1 diabetes when Icelandic data was excluded.[11]

Stress, antibiotics, mastitis & pus

Canadians who regard milk as "the perfect food" rarely think about milk as a commercial product – prone to the hazards of mass-production.

John Robbins, author of *May All Be Fed*, puts it well; "The modern-day Bessie is now bred, fed, medicated, inseminated, and manipulated for a single purpose – maximum milk production at a minimum cost."

In order to produce milk, a dairy cow must give birth. To maximize their milk supply they are artificially inseminated every year, meaning they are pregnant for a physically demanding 9 months out of every 12. Their calves are traumatically taken from them shortly after birth. The resulting surplus of calves feeds the veal industry.

With genetic manipulation and intensive production technologies, Canadian cows produce an average of 9,519 kg of milk per year (2003) — seven times more than they would produce naturally. When their milk production wanes after about four years, dairy cows are sent to slaughter where their worn out bodies are ground up into hamburger.

These unnatural conditions make the modern dairy cow highly prone to stress and disease.

The most damaging stress-related disease is mastitis (an inflammation of the udders). It reduces milk yield and directly affects milk quality by altering composition and increasing the somatic cell count (pus). The National Mastitis Council estimates that mastitis costs about $200 per cow per year on the average dairy farm. In Quebec, mastitis is the second-leading cause of culling.[12]

Antibiotics, mostly common penicillin, are given to cows for treatment of mastitis. Cows are not supposed to be milked for 48 hours after receiving penicillin. When this precaution is not followed the penicillin appears in the milk in small amounts.[13]

Non-dairy calcium sources

Foods rich in calcium include dark green vegetables such as broccoli, bok choy and kale, beans, tofu (made with calcium), tahini, sesame seeds, almonds, figs, seaweeds, and fortified soy milks.

Since the consumption of animal protein increases calcium requirements, a person following a vegan diet may have much lower needs. Although some plant foods contain oxalates and phytate that can inhibit calcium absorption, the calcium in plant foods is generally well absorbed.

Health benefits of soy milk

Soy milk is loaded with phytochemicals: particularly isoflavones, genistein and daidzein. Studies have found that these substances reduce the risk of cancer.[14] Most soy milk today is fortified with calcium, B_{12} and other nutrients that make it as nutritious as its cow's milk counterpart, but without the hazards of excessive protein, hormones or antibiotics.

Soy protein consumption has been shown to reduce the levels of cholesterol and lessen the incidences of atherosclerosis.[15] Soy has been effective in diabetes management by controlling blood sugar levels.[16] There is evidence to suggest that soy isoflavones assist in the prevention of osteoporosis by reducing calcium loss from bones.[17]

Variety is the key to a healthy diet, so don't overload on any one food including soy. Enjoy it in moderation – two to three servings per day.

Note: See **www.veg.ca/issues/dairy.html** for more information, updates and links.

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Calcium-rich vegetarian recipes

There are numerous excellent plant-based sources of calcium that are readily available, delicious and nutritious. One book that can help you get started is: **The Ultimate Uncheese Cookbook** by Joanne Stepaniak (2004).

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See veg.ca for links to many of the above references.