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Does Dairy Cause Dampness?

EXAMINING A THEORY

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The topic of dairy consumption was brought up at a scalp acupuncture seminar I recently attended. The Western presenter, educated and practicing in China, made the blanket statement that humans are not meant to consume dairy and that doing so causes dampness and phlegm accumulation, one of the key pathogenic factors underlying neurological disorders treated with scalp acupuncture.

I questioned the presenter about this assumption, but she held firm to her conviction, citing the observation that no other mammalian species consumes milk after weaning. This is one of many arguments against dairy consumption, but the claim that dairy causes pathogenic dampness within the theoretical tenets of traditional Chinese medicine is our chief concern. In this article, I will scrutinize several concerns with dairy consumption and challenge the assumption that dairy categorically deranges metabolism in a manner conducive to damp/phlegm accumulation.

So we are all on the same page, the TCM damp/phlegm signs and symptoms typically attributed to dairy consumption are the same as we would equate with Spleen qi deficiency. These include bloating, loose stools, and thick tongue coating, as well as Lung phlegm accumulation evidenced by sinus congestion and drainage or coughing of clear phlegm.

The Evolution of Dairy Consumption

First let's place human dairy consumption within an ancestral framework. Humans are born with a sufficient amount of the enzyme lactase to break down breast milk as a baby's first and only food for the first few months of life.

After weaning, some humans display lactase persistence, a genetic trait that enables the efficient breakdown of the milk sugar lactose into adulthood. This phenotypical shift worked its way into the human genome following the domestication of ruminant mammals that were herded and milked by pastoral communities. Dairy provided a novel source of nutrition and calories, bestowing an evolutionary advantage for those expressing the gene mutation for lactase to be secreted in the brush border of the small intestine.

Lactase persistence has existed in the human genome for thousands of years, with the genotype as high as 80 percent in those of European descent.[1] Thus the basic premise that all humans are not fit to consume dairy is patently false given the epigenetic changes that have occurred over millennia, and this doesn't even take into account the shift in the human intestinal microbiome toward Lactobacillus species that break down lactose. Humans are nothing if not adaptable.

That said, I will pose the broader question of whether dairy can be made easier to digest for those who do not exhibit lactase persistence. Here, human ingenuity in the face of survival pressure has led to the development of the culinary strategy of fermenting milk to aid digestion and assimilation while simultaneously inhibiting spoilage, providing a food source during the lean winter months.

Nutritional science describes two basic components of milk that can be difficult to digest in some individuals and highly allergenic in others. The first is the milk sugar lactose that is broken down by the enzyme lactase. The other is the protein casein that is metabolized by a number of proteolytic enzymes. I believe lactose to be the dominant damp factor, as we think of it in traditional Chinese medicine, with casein being less problematic but significant for some individuals.

The lacto-fermentation process for making yogurt or kefir introduces a bacterial culture that consumes the milk sugar lactose as its fuel source. In turn, the finished product is both low in lactose (or virtually free of lactose, depending on the length of fermentation) and full of probiotics.

When cheese is made, the curds (fat and carbohydrate component) are separated from the whey (protein component), compressing those curds and allowing them to safely ferment, sometimes over the course of several months, producing a cheese that is much lower in lactose.

Butter is made by churning skimmed cream from whole, non-homogenized milk, a process that lowers lactose; ghee is clarified butter, produced by heat separating out the remaining casein until only pure butterfat remains.

In all of these instances, diverse traditional cultures have found ways to store and consume dairy foods without the benefit of lactase persistence. True, modern Chinese cuisine does not favor heavy cream sauces or artisan cheeses, but anthropological evidence suggests that Asians have long availed themselves of dairy foods. The earliest evidence of cheese was found in the tombs of 3,800-year-old mummies in China's Taklamakan Desert.[2]

Given this evidence, it is shortsighted to accept the notion that just because our species is unique in consuming dairy after weaning, we are not meant to do so. Humans do a lot of unique and curious things. What is relevant is the ancestral record that shows a long history of dairy consumption in various forms.

This insight was not lost on the founders of Chinese medicine, who carefully detailed the qualities and nature of milk. Its energetics are sweet in flavor; neutral in nature; and enter the Heart, Lung, and Stomach channels. According to Paul Pitchford in "Healing with Whole Foods," "… milk builds qi vitality, the blood, and the yin, which includes the fluids and tissue of the body."

Toxic Milk

From there, things start to get a little dicey, with the Industrial Revolution not doing milk any favors dairy cows were taken off pasture, kept in close quarters, and fed a suboptimal diet (often leftover grain mash from alcohol distillation, milk became a serious vector for communicable diseases. The cows became sick, as did the humans who drank their milk.

At this juncture in history, pasteurization was one of two strategies championed to reduce risk of foodborne illness. Alternatively, certified raw milk from cows kept on pasture was chilled immediately after the cows were milked then transported into burgeoning urban areas. This became the purview of the now nearly extinct milkman.

Pasteurization was chosen as the most commercially viable solution, one that gave rise to a whole new industry of milk processing. Although the industry line is that pasteurized milk is exceedingly safe and raw milk is inherently dangerous, the former can and has become contaminated post-pasteurization, resulting in numerous illnesses.

On the other hand, the claim that drinking raw milk is akin to playing Russian roulette is a laughable assertion given the long ancestral history of raw dairy consumption. The key to safe raw milk consumption is obtaining milk from a dairy that specifically produces milk for raw consumption rather than from a high-volume factory farm where the milk is intended for pasteurization. An excellent resource to recommend to patients interested in accessing authentic and healthy raw milk is www.realmilk.com.

Raw milk has seen a resurgence in popularity following the observation that pasteurized milk is more difficult to digest and can more readily produce signs and symptoms of damp/phlegm accumulation. This is in part due to the enzymes inherent in raw milk becoming destroyed during the pasteurization process. These enzymes, chief among them being lactase, are naturally

produced by bacteria the milk assumes from the microbiological terrain of the cow as it is milked. Raw milk is pre-digested to maximize nutrient absorption by growing mammals.

The Dampness Factor

Clearly this is not a black or white issue; a nuanced approach to healthy dairy consumption would take all these factors into consideration. If recommending an elimination diet to detect suspected food sensitivities, be mindful of a patient's constitution and observe the development of damp signs with the reintroduction of dairy. Those with a tendency toward Spleen deficiency are particularly susceptible.

When reintroducing dairy, quality matters. Raw milk from heritage breeds grazing on organic pasture is less damp than pasteurized and homogenized milk from a commercial dairy plant.

Milk proteins vary depending on the species of ruminant animal. Alpha-lactalbumin and beta-lactoglobulin are the two main proteins found in cow's milk. The latter protein is thought to contribute to milk allergies due to a mutation in cows that causes them to produce beta-lactoglobulin in which a proline molecule is replaced by a histidine molecule. High-volume producers such as Holsteins are of a genetic variant known as A1 that express this amino acid difference. Breeds such as Jerseys and Guernseys, by contrast, are of the older A2 variant that retain proline.

The amount consumed matters. Having one glass of milk or a few slices of cheese every day may contribute a negligible amount of dampness while providing an easily assimilable form of calcium and other nutrients.

Processing matters too. Homemade yogurt and kefir have varying degrees of lactose and casein. If we consider one or both of these carbohydrate and protein fractions to be damp producing upon interaction with the human intestinal terrain, fermenting or processing milk into one of these probiotic-rich superfoods would render it more suitable for the Spleen-deficient constitution.

Ghee is pure butterfat and is tolerated by virtually everyone. When derived from the milk of cows on pasture during the warmer weather and abundant pasture growth of the spring flush, ghee has a rich yellow color indicating the presence of vitamin A and is replete with the healthy fat conjugated linoleic acid (CLA).

Dairy foods offer many benefits and have accented many cuisines the world over. Finding a tolerable form and quality of dairy will expand a patient's diet, maximize nutrition, and in most cases provide some form of probiotics, all without contributing to an appreciable accumulation of dampness or phlegm when considered in context with a patient's overall diet and constitution.

References

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