

Got Organic Milk?

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Organic production systems are widely-recognized as environmentally beneficial because they don't allow the use of synthetic, toxic chemicals--the basis of conventional agriculture. As a process-based standard, not a product-based standard, the notable benefits of organic are intended to be derived from the production process itself rather than any nutritional quality claims per se. So, while enhanced nutrition isn't typically the claim to fame of organic, a recently released study shows that organic systems can yield a healthier product. The study demonstrates that organically produced milk contains significantly higher levels of beneficial fatty acids than conventionally produced milk and that's why it's healthier for consumers. It's the system of organic production that makes the nutritional difference between the two.

In the study, [Organic Production Enhances Milk Nutritional Quality by Shifting Fatty Acid Composition](#), Benbrook et al. argue that organic production systems yield healthier milk because organic dairy farmers are legally mandated to pasture their cows when grasses and legumes are growing (an absolute minimum of 120 days annually).^[1] The large amount of forage eaten by organic cows is what accounts for the enhanced nutritional quality and beneficial fatty acid profile of organic milk and dairy products.

The authors tested 220 organic and 164 conventional whole-milk samples from producers in 7 regions across the U.S. and compared their fatty acid content over an 18 month period. Their research showed that organic milk contains 62% more omega-3 fatty acids and 25% less omega-6 fatty acids than conventional milk. Although omega-3 fatty acids are essential to human health,

they are not naturally produced in the human body, so they must be obtained through food consumption.[2] Omega-3s are also integral to healthy cell function and they have been shown to prevent heart disease and stroke.[3] Conversely, excessive levels of omega-6 fatty acids promote cardiovascular disease, autoimmune diseases, inflammation, blood clotting, and tumor growth.[4],[5]

Fatty acids are absorbed in the body in the same proportions as they are consumed.[6] With the advent of fast foods in particular, Western diets have gradually increased their omega-6 consumption and notably lowered omega-3 consumption, to the detriment of public health. A proper dietary balance allows the health-promoting characteristics of omega-3 to suppress the negative health impacts of omega-6 as their amounts in diets more closely align. Studies have demonstrated significant associations between lower omega-6 to omega-3 ratios and reductions in coronary heart disease and mortality.[7] Recent recommendations by nutritionists further suggest that healthy diets should have a ratio closer to one to one;[8] however, average ratios in U.S. diets have hovered around 8 to 20, with the latter being detrimental to health.[9],[10]

According to study authors, a switch to more organic whole milk and whole milk dairy products can rectify this dietary imbalance and should improve the long-term health of people who consume it. Low fat and no fat milk doesn't measure up since the omega -3s are in the fat. Researchers also found that organic milk samples contained higher levels of conjugated linoleic acid,[11] known to reduce the incidence and effects of cancer and atherogenesis (artery plaque build-up),[12],[13] and to assert positive effects on diabetes, immune function, and body composition.[14]

Still other noteworthy health benefits of organic not touched upon in the study include organic's prohibition of synthetic, toxic pesticides, growth hormones, antibiotics in livestock production, and genetically engineered feed. These negative aspects of conventional agriculture pose additional health risks to people who consume those animal products. Moreover, studies of milk from conventionally-raised pastured cows have shown detectable pesticide residues in the milk fat when synthetic pesticides were applied to pasture.[15]

Clearly, the enhanced nutritional benefits of organic are increasingly becoming a claim to fame of organic. Benbrook et al.'s study adds enhancements in essential fatty acids to the list of benefits attributable to the organic system of production. Whether conventionally produced milk could theoretically achieve this high nutritional quality if cows were pastured is beside the point because the only way to ensure that cows are pasture-fed is to buy certified organic. The system of organic production requires it.

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[14] Clancy, K. (2006). This has been demonstrated in animal studies only.

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