

## A Milky Way to Healthy Gut: The Probiotic of All Ages

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### Abstract

This article innovatively discusses functional benefits of milk for optimal gut physiology and health. This involves optimizing the gut microbial ecology. Milk with its diverse nature of nutrients and functional items stimulates gastrointestinal digestive and assimilative functions. Milk's special proteins and lactose help gut microbes retain adequate diversity to allow beneficial strains reproduce and inhibit harmful strains from generating toxins. Milk is an overlooked probiotic of all ages that must be highly included in healthy regimens.

**Keywords:** Milk; Gut health; Microbial ecology; Probiotic

### Science and Logics

Humans worldwide continue to suffer from a multitude of gastrointestinal diseases and cancers that claim many lives and largely depress life quality. This usually happens in the darkness of insufficient dairy products consumption of mainly fresh milk [1,2]. The lack of serious exercise and suboptimal food intake rhythms and times are exacerbated by greatly inadequate milk consumption in many parts of the world [3-6]. This public policy article establishes a global pragmatic science for serious practice to accommodate sufficient milk in daily diets to help gut's internal and microbial actions remain most beneficial towards improved gut integrity and intermediary metabolism.

### Discussion of Innovations

Milk contains numerous functional items that work beyond their merely nutritional value [1]. Specialized proteins, peptides, amino acids, vitamins, calcium, and lactose all independently and integratedly stimulate host and microbial enzymes production. Milk lactose can induce an active gut environment for both digestion and fermentation [7,8]. Despite the common wisdom that lactose intolerance is undesirable, certainly it could be favourable from a microbial and gut health perspective. Bloat and colic may in some degree occur in cases of lactose overintake, but prolonged milk consumption has the great potential to reduce the signs of intolerance. Lactose and milk driven gut fermentation is considered quite healthful for keeping the gut from passivity and inadequate movement.

Due to its diverse and inter-fitting collection of nutrients and functional components, milk is pragmatically irreplaceable as far as body fitness and overall health are concerned. Milk is an optimal food pre- and post-exercise. Iron, copper and vitamins enriched milk is greatly exclusive in having essential nutrients in a watery environment fitting that of the body. That is the main reason that mammals' most crucial stage of life during infancy - and in humans during brain development - relies solely and entirely but indeed outstandingly on milk [8-10].

From the age of two years on, when breast milk is no longer fed, milk consumption must not be overlooked in daily human diets and must regularly continue through youthhood, adulthood and advanced aging. This is very determining when aging brings more susceptibility to and risks from a multitude of morbidities including stomach and gut related diseases of both short- and long-term types. The rising global concerns on the outbreak of obesity and related cardiovascular problems can be significantly helped to be overcome through prolonged milk consumption. Such a healthy milk intake does not mean drinking less than 0.5 L of fresh milk a day. Complementary dairy intake will come from yogurt, cheese, and other healthy products.

### Implications

Human daily consumption of milk must not be overlooked after two years of age when breast feeding does no longer occur. Milk possesses an irreplaceable exclusive collection of functional items that are considered crucial for normal and healthy gut and liver function. Milk healthfully stimulates host and microbial food digestion and substrate assimilation that are required for normal gut physiology and dynamics. Milk-driven temporary watery defecation must not be considered unhealthy, as it helps the gut steadily but effectively accommodate milk towards body's natural and functional longevity. This is what the aging human populations strive for the most.

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