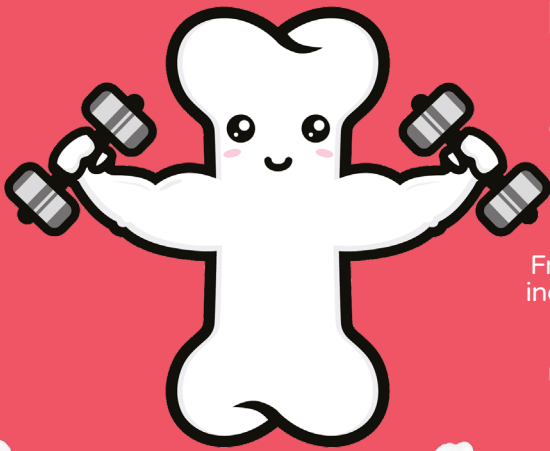


# Milk and Bone Health

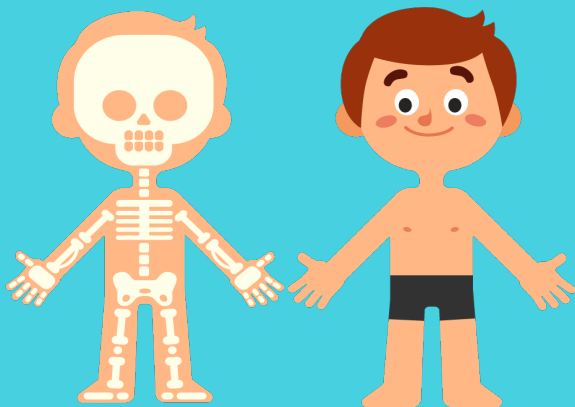


Milk contains multiple nutritional properties that may support childhood growth, development, and thus bone health.

From the available information, benefits of childhood milk consumption include increased bone mineral content (BMC) and bone mineral density (BMD), characteristics important for the prevention of bone-related diseases later in life (Osteoporosis). Nonetheless, in these studies, methodological approaches have been diverse and therefore further research is needed.

Multiple nutrients responsible for normal growth, development, and lasting bone health in children include:

**Calcium - Phosphorus - Protein**



## Key Scientific Papers

- Zhou et al. (2011) J Hy Res. 40: 65-7.
- Iuliano-Burns et al. (2006) Osteoporos Int. 17: 1794-1800.
- Rockell et al. (2005) Osteoporos Int. 16: 1016-1023
- Black et al. (2002) Am J Clin Nutr. 76: 675-680.
- Chan et al. (1995) J Pediatr. 126: 551-556.



School milk interventions have shown increased total body and regional (forearm) BMC and BMD compared to children who drank milk seldom.

Children who drink milk seldom exhibit low calcium intakes, short stature, increased fatness and lower bone health compared with non-milk drinkers.

From the available evidence, milk (and dairy) appears beneficial for bone health in children. Consuming whole foods may offer greater benefits than the equivalent calcium in the form of supplements, that last through to adulthood.

\*The present infographic is based on evidence from three available studies in 5-11 year old children. The majority of studies included in this section confirm that the consumption of milk improves parameters related to bone. Nevertheless, while these findings suggest that milk improves bone health in children, there remains considerable room for further studies due to diverse methods used in these studies.

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