



During development, children have high demand for nutrients to cope with body growth and function, especially for active kids. When kids grow up and start to attend different occasions and places, e.g. school, birthday parties, shopping malls, they will need to acquire stronger immunity. They also need a variety of nutrients to aid learning and memory to cope with heavy schoolwork and activities.

Sammy Cal is a nutritious dietary supplement for your kids with fantastic combination of essential nutrients and great flavor for growth, brain functions and immunity!

Calcium for growth and signalling

During childhood and adolescence calcium is in high demand for building strong bones and teeth. Puberty also increases the demand for calcium. Besides being a key for bone construction, calcium is required for nerve signal transmission and muscle contraction. Inadequate calcium intake would induce calcium to be released from bones resulting in weaker bones.^[1-4]

Children who will not or cannot drink milk, picky eaters and fast food culture may cause inadequate calcium. In addition, high levels of caffeine and phosphates in soda can further deplete calcium from body.

Magnesium for brain and strength

Like calcium, magnesium is a critical component of bones and teeth. It is recognised as an important factor for growth, energy production, protein synthesis and signal transduction.^[5,6] In fact, low magnesium and zinc level is scientifically shown to be associated with attention deficit hyperactivity disorder in children.^[7]

During physical exercise, magnesium is re-distributed within the body to cater for increased energy need for muscles to improve physical performance. In addition, higher magnesium intake is associated with lower risk of developing a metabolic syndrome and reduction of peripheral and cerebral vascular resistance.^[8]

Zinc for immunity and health

More than 300 enzymes depend on zinc for catalytic activity.^[9] Zinc activates white blood cells to fight against infections.^[10] It has been established that zinc is an essential trace element for the immune system.

Various body functions are also strictly dependent on zinc. For example, during the wound healing process, regeneration of healthy tissues for repair^[11] A lot of proteins also require zinc to maintain their structure.^[9,12]

Probiotics Maintain Balance of Gut Microflora

Probiotics are living microorganisms often called "friendly bacteria" or "good bacteria". Friendly bacteria enter human gut and help the balance of intestinal microflora. Probiotics produce natural chemicals that can inhibit pathogens.^[13] They are vital to proper development of the immune system and digestion and absorption of food and nutrients.^[14-17]

Probiotics could also reduce allergy response.^[16] Researches show that they can prevent and manage atopic dermatitis (eczema) in children.^[15] Probiotics are also known to reduce the risk of acute diarrhea caused by rotavirus in children.^[15]

Calcium, Magnesium & Zinc chewable tablets provide a wide range of benefits:

- Building strong skeleton and teeth ^[1-5]
- Activate the immune system to fight against pathogens ^[10,13]
- Support muscle coordination and strength ^[2-4,6,8]
- Increase attention and concentration ^[5]
- Calm nervous system and improve mood ^[7]
- Increase energy supply to brain ^[5]
- Improve digestion and nutrient absorption ^[5,13,16,17]
- Contain readily absorbable form of calcium, magnesium and zinc
- Especially suitable for children who do not obtain optimal amount of nutrients from diet
- Fruit flavor and chewable. Great tasting tablets!

Recommended dosage:

- Kids 3 years up: chew 3 tablets daily.
- Kids 8 years up: chew 3 tablets twice daily.
- Adults: chew 4 tablets twice daily.

References:

1. Greer FR, Krebs NF. American Academy of Pediatrics Committee on Nutrition. Optimizing Bone Health and Calcium Intakes of Infants, Children, and Adolescents. Pediatrics. 2006;117(2):578-85.
2. Heaney RP. Calcium intake and disease prevention. Arq Bras Endocrinol Metabol. 2006;50(4):685-93.
3. Lorenzon NM, Beam KG. Disease causing mutations of calcium channels. Channels (Austin). 2008;2(3):163-79.
4. Berchtold MW, Brinkmeier H, Müntener M. Calcium ion in skeletal muscle: its crucial role for muscle function, plasticity, and disease. Physiol Rev. 2000;80(3):1215-65.
5. National Research Council. Dietary Reference Intakes for Calcium, Phosphorus, Magnesium, Vitamin D, and Fluoride. Washington, DC: The National Academies Press, 1997.
6. National Institute of Health. Magnesium in Diet: MedlinePlus Medical Encyclopedia. Available at: <http://www.nlm.nih.gov/medlineplus/ency/article/002423.htm>.
7. Mahmoud MM, El-Mazary AA, Maher RM, Saber MM. Zinc, ferritin, magnesium and copper in a group of Egyptian children with attention deficit hyperactivity disorder. Ital J Pediatr. 2011 Dec 29;37:60. doi: 10.1186/1824-7288-37-60.
8. Geiger H, Wanner C. Magnesium in disease. Clin Kidney J. 2012;5(Suppl 1):i25-i38.
9. MacKay D, Miller AL. Nutritional support for wound healing. Altern Med Rev. 2003;8(4):359-77.
10. Rink L, Gabriel P. Zinc and the immune system. Proc Nutr Soc. 2000;59(4):541-52.
11. Shah PS, Ohlsson A. Effects of prenatal multimicronutrient supplementation on pregnancy outcomes: a meta-analysis. CMAJ. 2009;180(12):E99-108.
12. National Research Council. Dietary Reference Intakes for Vitamin A, Vitamin K, Arsenic, Boron, Chromium, Copper, Iodine, Iron, Manganese, Molybdenum, Nickel, Silicon, Vanadium, and Zinc. Washington, DC: The National Academies Press, 2001.
13. Kailasapathy K, Chin J. Survival and therapeutic potential of probiotic organisms with reference to Lactobacillus acidophilus and Bifidobacterium spp. Immunol Cell Biol. 2000;78(1):80-8.
14. National Center for Complementary and Alternative Medicine. Oral Probiotics: An Introduction (NCCAM). Last update: Nov 2011. Available at: <http://nccam.nih.gov/health/probiotics/introduction.htm>.
15. Reid G, Jass J, Sebulsky MT, McCormick JK. Potential uses of probiotics in clinical practice. Clin Microbiol Rev. 2003;16(4):658-72.
16. Gill HS, Guarner F. Probiotics and human health: a clinical perspective. Postgrad Med J. 2004;80(947):516-26.
17. Ljungh A, Wadström T. Lactic Acid Bacteria as Probiotics. Curr Issues Intest Microbiol. 2006;7(2):73-90.