

# Alka Calm



## Clinical Benefits

- Provides All Forms of Highly Absorbable Magnesium and Potassium
- Helps Maintain Healthy Bones, Blood Pressure, Glucose, and Insulin Levels
- Promotes Optimal Glutathione Status and Nervous System Health

**Alka Calm is a powdered blend of water-soluble magnesium and potassium designed to quickly restore essential mineral reserves by offering all the naturally occurring Krebs cycle chelates for maximum absorption.** The Krebs cycle chelates (malate, citrate, ascorbate, lactate, tartrate, aspartate) are formed when magnesium and potassium react in water with vitamin C. As the cofactors that drive our biochemical equations, these essential minerals are required for optimal metabolic function, making bioavailable formulations a must. Unlike most mineral supplements that use just a single mineral chelate, Alka Calm leverages the power of all available chelates to maximize absorption across multiple pathways, boosting its whole-body benefits. Plus, research shows that consuming these essential minerals together in drinking water increases their absorption and bioavailability.<sup>1,2</sup> Naturally sweetened with stevia and a delightful raspberry lemonade flavor, Alka Calm has proven itself to be a vital component of a variety of protocols.

**Magnesium** and **potassium** are two of the most highly utilized minerals in every cell of the body, and, as such, they are considered vital for life. Studies estimate that 75% of Americans do not meet the recommended dietary allowance of magnesium, while dietary surveys consistently show that people consume much less potassium than recommended.<sup>3, 4, 5</sup>

### Supplement Facts

**Serving Size: One Level Teaspoon (4.145g)**  
**Servings Per Container: 55**

Amount Per Serving	% DV
Vitamin C (as L-ascorbic acid)	75 mg <b>83%</b>
Vitamin B2 (as riboflavin)	0.01 mg <b>&lt;1%</b>
Magnesium (as malate/citrate/ascorbate/lactate reacted from magnesium carbonate & citric/ascorbic acids)	200 mg <b>48%</b>
Potassium (as citrate/malate/ tartrate/aspartate/ ascorbate reacted from potassium bicarbonate & citric/ascorbic acids)	150 mg <b>3%</b>

† The % Daily Value (DV) is not established.

**Other Ingredients:** Citric acid, lemon fruit juice powder, malic acid, tartaric acid, natural flavors (raspberry, lemon, and key lime), silicon dioxide, raspberry fruit juice powder, aspartic acid, stevia leaf extract, and fibersol (maltodextrin).

Size: 8 OZ. (226g)

Product Code: MALKA

 Vegetarian Formula

 Gluten Free

 Hypoallergenic

**Magnesium** is the fourth most abundant mineral in the body.<sup>3</sup> It is used as a cofactor in over 300 enzyme systems, supporting a multitude of metabolic activities.<sup>3, 6, 7, 8</sup> These activities include protein synthesis, DNA and RNA synthesis, cell growth and reproduction, cellular energy production and storage, and the stabilization of mitochondrial membranes.<sup>3, 8, 9, 10, 11, 12</sup> Magnesium is one of the minerals responsible for helping to maintain healthy bone metabolism, blood glucose, and blood pressure.<sup>3, 8, 9, 10, 11, 12, 13, 14, 15</sup> And it also plays a role in the active transport of calcium and **potassium** ions across cell membranes, all of which support healthy neuromuscular and cardiac function.<sup>3, 8, 9, 10, 11, 12, 15</sup> Additionally, magnesium is required to produce glutathione, the most powerful antioxidant in the human body.<sup>8</sup>

**Potassium** is the most abundant intracellular cation, making it a requirement for normal cell function.<sup>5</sup> It is an essential nutrient present in all body tissues, working to support healthy intracellular fluid volume and transmembrane electrochemical gradients, which are especially important for neuromuscular and heart health.<sup>5, 16, 17</sup>

With the waning nutritional content of our foods coupled with our fast-paced, modern lifestyles, supplementing these two necessary minerals has become an essential aspect of supporting our overall health and wellbeing.

## Essential Minerals & Cardio Metabolic Health

---

According to the FDA, “Diets containing foods that are a good source of **potassium** and that are low in sodium may reduce the risk of high blood pressure and stroke.”<sup>5, 18</sup> And that, “while the evidence is inconsistent and inconclusive, consuming diets with adequate **magnesium** may reduce the risk of high blood pressure (hypertension).”<sup>8, 19</sup>

Both **magnesium** and **potassium** play key roles in glucose and insulin metabolism.<sup>5, 8, 20, 21</sup> Potassium aids normal insulin secretion from pancreatic cells and helps maintain healthy fasting glucose levels, while magnesium supports normal cell signaling, glycogenolysis, and activity of the glucose transporter protein.<sup>3, 20, 21, 22, 23, 24, 25, 26, 27</sup>

## Essential Minerals & Bone health

---

Bone tissue contains 50–60% of the body’s **magnesium**, and studies (including a few clinical trials) show that a combination of magnesium and **potassium** are associated with maintaining healthy bone mineral density.<sup>3, 5, 8, 28, 29, 30</sup> While the underlying mechanism is unclear, one hypothesis is that these minerals may contribute to healthy acid-base balance.<sup>5, 31</sup> Diets rich in acid-forming foods, such as meats and cereal grains, contribute to metabolic acidosis.<sup>5</sup> And alkaline minerals, such as magnesium and potassium, may contribute to a healthier acid-base balance.<sup>5</sup> Studies like the Framingham Heart Study have shown that higher potassium intake is associated with significantly greater bone mineral density, and studies examining the DASH diet have shown significantly reduced biochemical markers of bone turnover.<sup>5, 32, 33</sup>



## Essential Nutrients & Nervous System Health

---

Adequate daily intake of **magnesium** and **potassium** are critical for a balanced stress response.<sup>34</sup> And studies show that magnesium status is highly associated with our subjective sense of wellbeing.<sup>34, 35, 36</sup> While the exact role of magnesium in our perception of wellness is yet to be determined, potential mechanisms include the glutamatergic, serotonergic, and adrenergic neurotransmitter systems, as well as several neuro-hormones.<sup>34</sup> Both magnesium and potassium help maintain balanced neuronal signal transduction and protect against the effects of high stress.<sup>36, 37</sup>

### **Recommended Dosage**

As a nutritional supplement, take 1 teaspoon twice daily, or as directed by your healthcare professional.

### **Does Not Contain**

Wheat, gluten, dairy, peanuts, tree nuts, egg, artificial colors, sweeteners, or preservatives.

### **Caution**

Consult your healthcare practitioner if pregnant, nursing, or taking other nutritional supplements or medications. Keep out of the reach of children.

\* These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.



## Citations

---

- 1 Barbagallo, M., Veronese, N., & Dominguez, L. J. (2021). Magnesium in Aging, Health and Diseases. *Nutrients*, *13*(2), 463. <https://doi.org/10.3390/nu13020463>
- 2 Koenig, K., Padalino, P., Alexandrides, G., & Pak, C. Y. (1991). Bioavailability of potassium and magnesium, and citraturic response from potassium–magnesium citrate. *The Journal of urology*, *145*(2), 330–334. [https://doi.org/10.1016/s0022-5347\(17\)38330-1](https://doi.org/10.1016/s0022-5347(17)38330-1)
- 3 Guerrero, M. P., Volpe, S. L., & Mao, J. J. (2009). Therapeutic uses of magnesium. *American family physician*, *80*(2), 157–162.
- 4 Alaimo, K., McDowell, M. A., Briefel, R. R., Bischof, A. M., Caughman, C. R., Loria, C. M., & Johnson, C. L. (1994). Dietary intake of vitamins, minerals, and fiber of persons ages 2 months and over in the United States: Third National Health and Nutrition Examination Survey, Phase 1, 1988–91. *Advance data*, (258), 1–28.
- 5 National Institutes of Health Office of Dietary Supplements. (2021, March 26). Potassium Fact Sheet for Health Professionals. *U.S. Department of Health and Human Services, National Institutes of Health*. <https://ods.od.nih.gov/factsheets/Potassium-HealthProfessional/>
- 6 Elin R. J. (1994). Magnesium: the fifth but forgotten electrolyte. *American journal of clinical pathology*, *102*(5), 616–622. <https://doi.org/10.1093/ajcp/102.5.616>
- 7 Takaya, J., Higashino, H., & Kobayashi, Y. (2004). Intracellular magnesium and insulin resistance. *Magnesium research*, *17*(2), 126–136.
- 8 National Institutes of Health Office of Dietary Supplements. (2022, March 1). Magnesium Fact Sheet for Health Professionals. *U.S. Department of Health and Human Services, National Institutes of Health*. <https://ods.od.nih.gov/factsheets/Magnesium-HealthProfessional/>
- 9 Newhouse, I. J., & Finstad, E. W. (2000). The effects of magnesium supplementation on exercise performance. *Clinical journal of sport medicine : official journal of the Canadian Academy of Sport Medicine*, *10*(3), 195–200. <https://doi.org/10.1097/00042752-200007000-00008>
- 10 Bohl, C. H., & Volpe, S. L. (2002). Magnesium and exercise. *Critical reviews in food science and nutrition*, *42*(6), 533–563. <https://doi.org/10.1080/20024091054247>
- 11 Rude RK, Shils ME. (2005). Magnesium. In Shils ME, Shike M, Ross AC, Caballero B, Cousins RJ. (Eds.), *Modern Nutrition in Health and Disease* (10th ed., pp. 223–248). Lippincott Williams & Wilkins.
- 12 Chubanov, V., Gudermann, T., & Schlingmann, K. P. (2005). Essential role for TRPM6 in epithelial magnesium transport and body magnesium homeostasis. *Pflugers Archiv : European journal of physiology*, *451*(1), 228–234. <https://doi.org/10.1007/s00424-005-1470-y>
- 13 Institute of Medicine, Food and Nutrition Board. (1997). Dietary Reference Intakes: Calcium, Phosphorus, Magnesium, Vitamin D and Fluoride. *National Academy Press*. <https://www.nap.edu/read/5776/chapter/1>
- 14 Rude RK. (2010). Magnesium. In Coates PM, Betz JM, Blackman MR, Cragg GM, Levine M, Moss J, White JD (Eds.), *Encyclopedia of Dietary Supplements* (2nd ed., pp. 527–37). Informa Healthcare.
- 15 Rude RK. (2012). Magnesium. In Ross AC, Caballero B, Cousins RJ, Tucker KL, Ziegler TR (Eds.), *Modern Nutrition in Health and Disease* (11th ed., pp. 159–75). Lippincott Williams & Wilkins.
- 16 Institute of Medicine. (2005). Dietary Reference Intakes for Water, Potassium, Sodium, Chloride, and Sulfate.
- 17 Stone, M. S., Martyn, L., & Weaver, C. M. (2016). Potassium Intake, Bioavailability, Hypertension, and Glucose Control. *Nutrients*, *8*(7), 444. <https://doi.org/10.3390/nu8070444>
- 18 U.S. Food and Drug Administration. (2016). *Food Labeling: Revision of the Nutrition and Supplement Facts Labels*. (Federal Register 81(103):33894–33895). <https://www.federalregister.gov/documents/2016/05/27/2016-11867/food-labeling-revision-of-the-nutrition-and-supplement-facts-labels>
- 19 U.S. Food and Drug Administration. (2022). RE: Petition for a qualified health claim for magnesium and reduced risk of high blood pressure (hypertension) (docket No. FDA-2016-Q-3770). <https://www.fda.gov/media/155304/download>



- 20 Larsson, S. C., & Wolk, A. (2007). Magnesium intake and risk of type 2 diabetes: a meta-analysis. *Journal of internal medicine*, 262(2), 208–214. <https://doi.org/10.1111/j.1365-2796.2007.01840.x>
- 21 Rodríguez-Morán, M., Simental Mendía, L. E., Zambrano Galván, G., & Guerrero-Romero, F. (2011). The role of magnesium in type 2 diabetes: a brief based-clinical review. *Magnesium research*, 24(4), 156–162. <https://doi.org/10.1684/mrh.2011.0299>
- 22 Paolisso, G., & Barbagallo, M. (1997). Hypertension, diabetes mellitus, and insulin resistance: the role of intracellular magnesium. *American journal of hypertension*, 10(3), 346–355. [https://doi.org/10.1016/s0895-7061\(96\)00342-1](https://doi.org/10.1016/s0895-7061(96)00342-1)
- 23 Barbagallo, M., Dominguez, L. J., Galioto, A., Ferlisi, A., Cani, C., Malfa, L., Pineo, A., Busardo, A., & Paolisso, G. (2003). Role of magnesium in insulin action, diabetes and cardio-metabolic syndrome X. *Molecular aspects of medicine*, 24(1-3), 39–52. [https://doi.org/10.1016/s0098-2997\(02\)00090-0](https://doi.org/10.1016/s0098-2997(02)00090-0)
- 24 Suárez, A., Pulido, N., Casla, A., Casanova, B., Arrieta, F. J., & Rovira, A. (1995). Impaired tyrosine-kinase activity of muscle insulin receptors from hypomagnesaemic rats. *Diabetologia*, 38(11), 1262–1270. <https://doi.org/10.1007/BF00401757>
- 25 Yu, J. S., Lee, S. C., & Yang, S. D. (1995). Effect of Mg<sup>2+</sup> concentrations on phosphorylation/activation of phosphorylase b kinase by cAMP/Ca<sup>2+</sup>-independent, autophosphorylation-dependent protein kinase. *Journal of protein chemistry*, 14(8), 747–752. <https://doi.org/10.1007/BF01886914>
- 26 Arner, P., Pollare, T., Lithell, H., & Livingston, J. N. (1987). Defective insulin receptor tyrosine kinase in human skeletal muscle in obesity and type 2 (non-insulin-dependent) diabetes mellitus. *Diabetologia*, 30(6), 437–440. <https://doi.org/10.1007/BF00292549>
- 27 Chatterjee, R., Slentz, C., Davenport, C. A., Johnson, J., Lin, P. H., Muehlbauer, M., D'Alessio, D., Svetkey, L. P., & Edelman, D. (2017). Effects of potassium supplements on glucose metabolism in African Americans with prediabetes: a pilot trial. *The American journal of clinical nutrition*, 106(6), 1431–1438. <https://doi.org/10.3945/ajcn.117.161570>
- 28 Stendig-Lindberg, G., Tepper, R., & Leichter, I. (1993). Trabecular bone density in a two year controlled trial of peroral magnesium in osteoporosis. *Magnesium research*, 6(2), 155–163.
- 29 Tucker, K. L., Hannan, M. T., Chen, H., Cupples, L. A., Wilson, P. W., & Kiel, D. P. (1999). Potassium, magnesium, and fruit and vegetable intakes are associated with greater bone mineral density in elderly men and women. *The American journal of clinical nutrition*, 69(4), 727–736. <https://doi.org/10.1093/ajcn/69.4.727>
- 30 Hanley, D. A., & Whiting, S. J. (2013). Does a high dietary acid content cause bone loss, and can bone loss be prevented with an alkaline diet?. *Journal of clinical densitometry : the official journal of the International Society for Clinical Densitometry*, 16(4), 420–425. <https://doi.org/10.1016/j.jocd.2013.08.014>
- 31 Weaver C. M. (2013). Potassium and health. *Advances in nutrition (Bethesda, Md.)*, 4(3), 368S–77S. <https://doi.org/10.3945/an.112.003533>
- 32 Tucker, K. L., Hannan, M. T., Chen, H., Cupples, L. A., Wilson, P. W., & Kiel, D. P. (1999). Potassium, magnesium, and fruit and vegetable intakes are associated with greater bone mineral density in elderly men and women. *The American journal of clinical nutrition*, 69(4), 727–736. <https://doi.org/10.1093/ajcn/69.4.727>
- 33 Lin, P. H., Ginty, F., Appel, L. J., Aickin, M., Bohannon, A., Garner, P., Barclay, D., & Svetkey, L. P. (2003). The DASH diet and sodium reduction improve markers of bone turnover and calcium metabolism in adults. *The Journal of nutrition*, 133(10), 3130–3136. <https://doi.org/10.1093/jn/133.10.3130>
- 34 Cuciureanu, M. D., & Vink, R. (2011). Magnesium and stress. In R. Vink (Eds.) et. al., *Magnesium in the Central Nervous System*. University of Adelaide Press.
- 35 Boyle, N. B., Lawton, C., & Dye, L. (2017). The Effects of Magnesium Supplementation on Subjective Anxiety and Stress-A Systematic Review. *Nutrients*, 9(5), 429. <https://doi.org/10.3390/nu9050429>
- 36 Shin, H. J., Na, H. S., & Do, S. H. (2020). Magnesium and Pain. *Nutrients*, 12(8), 2184. <https://doi.org/10.3390/nu12082184>
- 37 Li, X. Y., & Toyoda, H. (2015). Role of leak potassium channels in pain signaling. *Brain research bulletin*, 119(Pt A), 73–79. <https://doi.org/10.1016/j.brainresbull.2015.08.007>

