



GENESTRA  
BRANDS®

# Potassium Glycinate Liquid

MINERAL SUPPLEMENT

## Great-tasting liquid potassium formula

- Source of an electrolyte for the maintenance of good health\*
- Provides 100 mg of potassium per teaspoon
- Delicious natural blueberry-lemon-basil flavor
- Convenient liquid format mixes easily with juice or water

Potassium Glycinate Liquid provides 100 mg of potassium in each delicious natural blueberry-lemon-basil-flavored teaspoon. Potassium, the primary cation inside human cells, is an electrolyte for the maintenance of good health. It is required to maintain normal cell function, cell volume and pH. Potassium is also essential for establishing a membrane potential, which is required for the electrical activity in nerve fibers and muscle cells. By mediating the contractile state of endothelial and vascular smooth muscle cells, potassium plays an important role in vascular function, including both endothelial cell function and blood flow. Due to its important roles in many metabolic processes throughout the body, it is important to consume adequate levels of this mineral each day. However, research suggests that individuals worldwide consume potassium at a level below recommended values. This may result from a decrease intake of fruits and vegetables or an increased intake of processed foods, as food processing markedly reduces potassium content. Potassium Glycinate Liquid is a great-tasting formula that can help contribute to daily potassium recommendations.\*



### Supplement Facts

Serving Size 1 Teaspoon (5 ml)  
Servings per Container 90

Each Teaspoon Contains		% DV
Calories	5	
Total Carbohydrate	2 g	1% †
Potassium (as potassium glycinate)	100 mg	2%

† Percent Daily Values (DV) are based on a 2,000 calorie diet

Other ingredients: Purified water, glycerin, natural blueberry, lemon and basil flavors, citric acid, potassium sorbate, stevia leaf extract (glucosylsteviosides)

**Recommended Adult Dose:** Take one teaspoon daily or as recommended by your healthcare practitioner. If preferred, Potassium Glycinate Liquid can be mixed with juice or water.

**Product Size:** 15.2 fl oz (450 ml)

**Product Code:** 04228



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The information contained herein is for informational purposes only and does not establish a doctor-patient relationship. Please be sure to consult your physician before taking this or any other product. Consult your physician for any health problems.

\* 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.

# Potassium Glycinate Liquid

## MINERAL SUPPLEMENT

### Scientific Rationale:

Potassium is an essential mineral required for the proper function of cells, tissues and organs.<sup>1\*</sup> As an electrolyte, it is involved in many metabolic processes throughout the body.<sup>1,2\*</sup> Potassium helps to maintain cellular homeostasis, including osmotic pressure and water distribution, electron transport reactions and proper pH (as a component of potassium bicarbonate, the primary inorganic buffer in cells).<sup>1\*</sup> In addition, potassium helps to convert amino acids into proteins and metabolize glucose into glycogen for later use as energy.<sup>1\*</sup>

Once potassium is ingested, it is rapidly absorbed through the intestinal mucosal lining.<sup>1</sup> Approximately 98% of potassium is stored intracellularly, while 2% is present outside of cells.<sup>1</sup> Potassium ions are the primary cations present in the intracellular fluid.<sup>1</sup> The highest concentration of potassium is found in the muscle, with lower levels present in the bone, liver, skin and red blood cells.<sup>2</sup>

Potassium is essential for establishing a membrane potential, which is required for the electrical activity in nerve fibers and muscle cells.<sup>2\*</sup> These excitable cells rely on the sodium-potassium pump to respond to stimuli and transmit impulses.<sup>1</sup> In nerve cells, sodium-potassium pumps actively pump two K<sup>+</sup> ions into the cell for every three Na<sup>+</sup> ions pumped outside the cell.<sup>1</sup> This uneven distribution of charges produces the electric potential gradient required for the propagation of nerve impulses, helping to produce muscle contractions and mediate heartbeats.<sup>1\*</sup>

Specifically, this pumping, along with negatively charged ions present inside the nerve cell, results in a voltage potential across the nerve cell membrane.<sup>1</sup> After the membrane is stimulated, it becomes permeable to Na<sup>+</sup> ions, permitting Na<sup>+</sup> ions to enter the cell.<sup>1</sup> This results in depolarization, the change in electrical potential across the membrane towards a positive value, which allows the nerve impulse to propagate.<sup>1</sup>

Similarly, the sodium-potassium pump is involved in the depolarization of muscle cell membranes.<sup>1</sup> The ion gradient produced by pumping Na<sup>+</sup> ions out of the cell and K<sup>+</sup> ions inside the cell, in addition to the organic compounds and proteins in the cell, results in a voltage across the muscle cell membrane.<sup>1</sup> After stimulation of the membrane (usually with acetylcholine), it becomes permeable to Na<sup>+</sup>, which results in depolarization.<sup>1</sup> This depolarization progresses through the muscle, resulting in the release of calcium ions and muscle contraction.<sup>1</sup>

Due to its role in skeletal and smooth muscle contractions, potassium is critical for normal digestive and muscular function.<sup>1\*</sup> By mediating the contractile state of endothelial and vascular smooth muscle cells, potassium also plays an important role in vascular function, including both endothelial cell function and blood flow.<sup>3\*</sup> Supplementation with potassium may stimulate the sodium-potassium pump in vascular smooth muscle and nerve fibers, further helping to promote healthy blood flow.<sup>4\*</sup> Potassium may also influence vascular function by promoting the excretion of sodium in the urine, resulting in increased nitric oxide production.<sup>5\*</sup> Additionally, potassium has important roles in electrolyte and fluid balance, two components of vascular function.<sup>2\*</sup>

In a randomized, double-blind, placebo-controlled crossover trial, daily potassium supplementation supported healthy vascular function.<sup>6\*</sup> Participants from 40-70 years old were randomized to consume either potassium or lactose supplements daily for six weeks.<sup>6</sup> As per the crossover design, participants consumed the alternate supplement after a six-week washout period.<sup>6</sup> Potassium supplementation was reported to significantly promote vascular function, demonstrating a beneficial effect on cardiovascular health.<sup>6\*</sup> Similarly, a meta-analysis of 15 randomized controlled trials reported that potassium supplementation had significant beneficial effects on vascular function.<sup>7\*</sup>

Research suggests that individuals worldwide consume potassium at a level below recommended values.<sup>2,8</sup> This may result from the increased intake of processed foods, as food processing markedly reduces potassium content.<sup>8</sup> Similarly, diets low in fresh fruits and vegetables may result in inadequate potassium intake.<sup>8</sup> Potassium may also be lost from the body due to diuretic use, diarrhea, vomiting, or excessive sweating associated with heat or physical activity.<sup>2,8</sup> Initially, potassium deficiency may cause muscle weakness and slow reflexes, which can progress to irregular heartbeat, decreased gastrointestinal tone and fatigue.<sup>1</sup> As the human body does not have an effective method of conserving potassium (even when potassium levels are low), it is important to consume adequate levels of this mineral each day.<sup>1</sup> Potassium Glycinate Liquid is a great-tasting formula that can help contribute to daily potassium recommendations.

#### REFERENCES

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