

# BISGLYCINATE

Magnesium bisglycinate is a chelated form of this mighty mineral. Each magnesium atom is bound with two glycine molecules. The resulting compound is stable, which maximizes intestinal absorption and reduces stomach upset, which can occur with other forms of magnesium. Once broken down, the glycine serves as building blocks for protein synthesis.

# CITRATE

Magnesium citrate is formed by means of the reaction which occurs between magnesium oxide and citric acid. The resulting compound dissolves making the elemental magnesium readily absorbed into the bloodstream for it's many metabolic duties. Magnesium citrate also causes fluid retention in the stool which promotes regularity.

# OROTATE

Orotic acid, when bound to magnesium, forms a compound that increases the concentration of magnesium in the bloodstream. It's useful for treating extracellular magnesium deficiency and for maintaining cardiac function, especially when under stress. It also helps maintain electrolyte balance crucial for contractile function of muscles including the heart.

# L-THREONATE

Magnesium L-threonate is a clinically researched compound proven to be better assimilated into certain areas of the body. This makes it an ideal form of magnesium for consumers 50+, looking to support healthier aging. Adequate absorption of magnesium is essential, as it plays a critical role in supporting muscle function, electrolyte balance, and nerve transmission from our head to our toes.

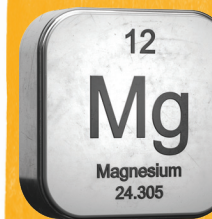
## BISGLYCINATE



## CITRATE



## SPECIALTY



**A MINERAL THAT  
MATTERS MORE  
THAN YOU KNOW!**

**1 IN 3 CANADIANS**



**DOESN'T GET ENOUGH!**

**CHOOSE THE ONE  
THAT'S BEST FOR YOU**

# NATIONAL DEFICIENCY

Some experts claim that magnesium deficiency is one of the largest health problems in our world today. Millions of Canadians suffer daily from magnesium deficiency, most of the time unknowingly. According to Health Canada, one in three Canadian adults do not meet the estimated average requirement (EAR) for magnesium intake.



## ARE YOU AT RISK?

Magnesium deficiency can be caused by a variety of factors including, but not limited to:

- **Age:** Our ability to absorb and store magnesium decreases with age.
- **Strains on Agriculture:** Increased demands on farming has left our soil magnesium-deficient. Even organic produce does not guarantee sufficient magnesium content.
- **Changing Diets:** Processed foods and excessive caffeine and alcohol.
- **Life Circumstances:** Strenuous exercise programs, pregnancy, and lactation.
- **Intestinal Health Issues:** Because magnesium is absorbed throughout the intestines, anyone with short-bowel syndrome or having undergone intestinal surgery have reduced absorption abilities.
- **Medications:** Diuretics, proton-pump inhibitors, and chemotherapy-related drugs.

# SIGNS OF DEFICIENCY

- **Fatigue**
- **Muscle weakness**
- **Twitches**
- **Numbness**
- **Cramps**
- **Tingling**
- **Spasms**
- **Migraines**
- **Stress**
- **Irritability**
- **Headaches**
- **High blood pressure**
- **Dizziness**
- **Trouble Sleeping**
- **Irregular Heartbeat**
- **Nausea**
- **Low concentration**

## HOW MUCH DO YOU NEED?

Recommended Daily Amount  
(mg/day)

| CHILDREN    |     |
|-------------|-----|
| 1–3 years   | 80  |
| 4–8 years   | 130 |
| MALES       |     |
| 9–13 years  | 240 |
| 14–18 years | 410 |
| 19–30 years | 400 |
| 31–50 years | 420 |
| 51–70 years | 420 |
| > 70 years  | 420 |
| FEMALES     |     |
| 9–13 years  | 240 |
| 14–18 years | 360 |
| 19–30 years | 310 |
| 31–50 years | 320 |
| 51–70 years | 320 |
| > 70 years  | 320 |
| PREGNANCY   |     |
| < 18 years  | 400 |
| 19–30 years | 350 |
| 31–50 years | 360 |
| LACTATION   |     |
| < 18 years  | 360 |
| 19–30 years | 310 |
| 31–50 years | 320 |

# POSSIBLE HEALTH EFFECTS

Prolonged magnesium deficiency can lead to serious potentially irreversible conditions:



### Muscular

Fatigue, muscle weakness and pain, numbness, spasms (eyelids), cramps, tetany, tingling, fibromyalgia, nystagmus



### Neurological

Stress, irritability, depression, anxiety, migraines, headaches, dizziness, insomnia, jaw pain



### Cardiovascular

Hypertension, primary hypertension, coronary heart disease, stroke, abnormal vascular tone, congestive cardiac failure, ischaemic heart disease, arrhythmia, myocardial infarction, preeclampsia



### Endocrine

Metabolic syndrome, type II diabetes mellitus, impaired glucose tolerance, thyroid and parathyroid diseases



### Bone

Osteoporosis, fractures



### Gastrointestinal

Constipation, bloating, loss of appetite, nausea, vomiting, liver cirrhosis, colorectal cancer



### Respiratory

Asthma



### Psychological

Low concentration, ADHD



### General

Chronic low-grade inflammation, oxidative response causing endothelial dysfunction, refractory hypokalemia, refractory hypocalcaemia