

# Magnesium Overview

## Why We Need It?

Magnesium is an essential mineral involved in over 300 enzymatic reactions in the body, playing a crucial role in muscle function, nerve signaling, energy production, and bone health. It helps regulate blood pressure, supports heart health, and reduces stress and inflammation.

## Functions in the Body

Muscle & Nerve Function: Supports muscle relaxation and prevents cramps.

Energy Production: Essential for ATP (energy) synthesis.

Heart Health: Helps regulate blood pressure and maintain a steady heartbeat.

Bone Strength: Works with calcium and vitamin D to support bone density.

Blood Sugar Regulation: Improves insulin sensitivity and glucose metabolism.

Stress & Sleep Support: Helps reduce anxiety and promotes restful sleep.

Anti-Inflammatory Properties: Reduces oxidative stress and supports immune function.

## Daily Recommended Intake (RDI):

**Children** (1-8 years): 80-130 mg/day

**Adolescents** (9-18 years): 240-410 mg/day

**Men** : 400 mg/day

**Women** : 310 mg/day

**Pregnant Women**: 350-400 mg/day

**Lactating Women**: 310-360 mg/day

**Upper Limit (UL)**: 500 mg/day (for supplements; dietary magnesium does not pose a risk).

## Benefits of Supplementation

- Reduces muscle cramps and supports athletic performance.
- Lowers blood pressure and supports cardiovascular health.
- Aids in relaxation, reducing stress and anxiety.
- Improves sleep quality and reduces insomnia.
- Supports healthy blood sugar levels and may reduce the risk of type 2 diabetes.
- Helps maintain strong bones and reduces the risk of osteoporosis.

## Most Bioavailable Form

Magnesium Glycinate: Highly absorbable, best for relaxation and sleep.

Magnesium Citrate: Well-absorbed, commonly used for digestion and constipation.

Magnesium Malate: Supports energy production and muscle function.

Magnesium L-Threonate: Best for cognitive health and brain function.

Magnesium Oxide: Less bioavailable, often used for digestive relief.

## Best Food Sources

Leafy Greens: Spinach, Swiss chard, kale.

Nuts & Seeds: Almonds, cashews, pumpkin seeds, sunflower seeds.

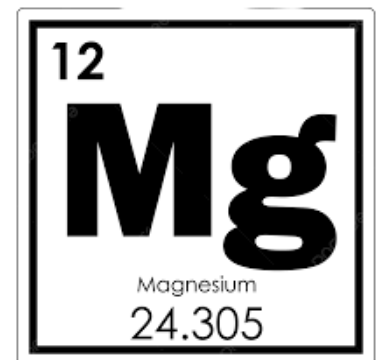
Whole Grains: Brown rice, quinoa, whole wheat.

Legumes: Black beans, lentils, chickpeas.

Seafood: Salmon, mackerel.

Dark Chocolate: Rich in magnesium and antioxidants.

Dairy Products: Yogurt, milk.



## Conclusion

Magnesium is essential for muscle function, nerve health, energy production, and relaxation. While many people don't get enough from their diet, supplementation can help improve sleep, stress levels, and overall well-being. Choosing the right form of magnesium based on individual needs ensures maximum benefits.