MAGIC MAGNESIUM 101

Everything You Need to Know About it



Welcome to "Magic Magnesium"

Most talked about? Most researched? Mineral that is active in 300 metabolic functions? Oh yes, you are right it's Magnesium.

This is your comprehensive guide to understanding the **essential role** of magnesium in the human body. I believe that knowledge is the key to maintaining your good health so that you can thrive! Together we will explore the various types of magnesium and delve into Its vital functions within your body!

Lets get to know Magnesium!



Coach Sasha



Disclaimer

This e-book was designed to provide you with information about magnesium. It is made with the understanding that the authors/publishers and links are not liable for any misconception or misuse of the information provided.

The purpose of this book is to educate. It is not intended to be an all encompassing comprehensive source of information about magnesium.

This book is not meant to take the place of a medical visit with your healthcare practitioner. Please consult with your healthcare practitioner should you be in need of medical care.

This book is not medical advice and is not a substitute for medical diagnosis or treatment nor intended as a substitute for medical care.

Information contained in this book should not be interpreted as a claim or representation of treatment, cure, solution or exchange for treatment.

Please feel free to take this book to your practitioner and point out where you recognize yourself, be empowered and seek better health!

If you are interested in the supplements and/or lab tests, look at https://www.designsforhealth.com/u/slavkayiannakou for more information.

If you are interested in Health Coaching, or you would like to get familiar with our services please visit www.RootedinHealth.life



The Importance of Magnesium

Magnesium is a crucial mineral that plays a pivotal role in numerous physiological processes. It is involved in over 300 biochemical reactions in the body, making it one of the most versatile and essential minerals. From energy production to muscle function and nerve signaling, magnesium is indispensable for maintaining your overall health and well-being.

No wonder we call it Magic

The large majority of the magnesium in your body is stored in your bone, muscles, and soft tissues. Very little (less than 1%) is actually floating around in your bloodstream.

This makes testing for it difficult!

You may have had a blood test for magnesium and been told "All is normal," when in fact, you might be fine in the blood and low in all those other areas.



Unfortunately, more people are likely magnesium deficient than we know!

Our soils have become magnesium deficient over time.

Processed food contains less magnesium.

Digestive issues can decrease magnesium absorption.

- Certain foods that are high in tannins or phytates block magnesium absorption.
- Certain medications like acid blockers, diuretics, antibiotics and
- some heart medications block it.
- Fluoride binds to magnesium so it can't be absorbed (toothpaste)

Your filtered water might be removing it.

Certain habits such as alcohol use can deplete Mg



Magnesium 101

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Magnesium and It's Role in the Body

What are common symptoms of low magnesium in your bones, tissues, and muscles?

Feeling more tired due to low energy production:

- Magnesium is a vital cofactor in the production of adenosine triphosphate (ATP), the primary source of cellular energy.
- It supports energy metabolism and helps maintain optimal energy levels.





Muscle Spasms and Pain:

- Magnesium is essential for muscle contraction and relaxation.
- Mg aids in preventing muscle pain, cramps, spasms, headaches.

Nervous System Problems:

- Magnesium plays a crucial role in nerve function & neurotransmitter release.
- It may help reduce anxiety, promote relaxation, and support a good mood.





Bone Health, Osteoporosis and Osteopenia:

- Magnesium is involved in maintaining bone density and strength.
- It works alongside calcium and vitamin D to support overall bone health. In fact, magnesium is critical for vitamin D

In fact, magnesium is critical for vitamin D absorption and use.

Cardiometabolic Health:

- Magnesium's ability to help the arterial wall to relax helps reduce cardiovascular disease like high blood pressure.
- It can also be helpful with heart palpitations along with other nutrients like B-vitamins and taurine.
- It has been studied with type 2 diabetes it helps improve insulin sensitivity and blood flow while reducing inflammation.







Magnesium Deficiency and Supplementation

Common symptoms of magnesium deficiency include:

- Muscle cramps, spasms or twitching
- Uterine cramps, heavy painfull periods
- Fatigue
 - Irritability
- Anxiety
- Headaches/migraines
- Fibromyalgia
 - High blood pressure
 - And/or irregular heartbeat.

Magnesium might be part of the answer!

Supplementation:

Magnesium supplements can be beneficial for individuals with a deficiency or specific health concerns. Always consult a healthcare professional before starting any supplementation to determine the appropriate type and dosage.

The average adult might need to supplement with 300-500mg per day (or more) depending on their needs, symptoms, and other interfering factors.

Magnesium ideally is taken on an empty stomach away from things that block its absorption such as other minerals, fiber, and medications like proton pump inhibitors.







The Different Types of

Magnesium

There are many different types of magnesium, but in the end, everything listed here is magnesium. Some types of magnesium are easier to absorb, some are more helpful for getting into the brain, some help with constipation, some are more related to energy, and some are calming.

Magnesium Citrate:

- Highly bioavailable and easily absorbed by the body.
- Often used for its laxative effects in cases of constipation.
- Suitable for individuals with magnesium deficiency due to its better absorption rate.

Magnesium Glycinate (or bisglycinate):

A gentle form of magnesium that is well-tolerated by the digestive system (less risk of loose stools).

Best suited for those looking to support better sleep and relaxation, anxiety or stress related issues as the amino acid glycine can be calming.

Glycine in It is also used to make glutathione, creatine, and collagen.

Magnesium Oxide:

A commonly recommended form as it is found in grocery stores and pharmacies but it is not very well absorbed.

High risk for loose stools.

Frequently used to alleviate heartburn and indigestion.

<u>Magnesium Threonate (or Magnesium L-Threonate):</u>

- Threonate helps magnesium to cross the blood-brain barrier, making it
- ideal for brain health.

May enhance cognitive function and support memory and learning. Suitable for individuals seeking to improve brain health and neurological conditions.

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Magnesium Malate:

- Taken to improve muscle performance, boost mental focus and reduce fatigue.
- It has been studied to improve pain and tenderness found in fibromyalgia and chronic fatigue patients.

It is generally well absorbed without the digestive upset.

Magnesium Aspartate:

This form has been studied in chronic fatigue due to the help of aspartic acid in energy production.

It is generally well absorbed without the digestive upset.

<u>Magnesium Orotate</u>:

This form is combined with orotic acid, natural substance involved in DNA production.
Studies shown effectivnes at reducing blood pressure, improving heart
palpitations or other conditions of the heart.

It is generally well absorbed without digestive upset.

Magnesium Taurate: Heart Health Mg

Magnesium and taurine have similar actions in the body.

- Taurine is important for heart health, brain health, detoxification, and bile health
- however the amount in magnesium supplements is not generally considered enough. NOT recomended for children, during pregnancy & breast feeding

Magnesium Chloride:

Often used as a **topical** magnesium such as magnesium oil to apply directly to muscles. Often causes slight itchy feeling, but absorbs very well.

Magnesium Sulfate:

Commonly known as Epsom Salts used in soaking baths and not taken orally. At Rooted in Health we love Epsom salt + essential oil soaks for its relaxing properties (muscle ache, tension, insomnia).

Magnesium Hydroxide:

Commonly sold as <u>Milk of Magnesia</u> used for constipation or as an antacid;

It is not meant to replace magnesium in the body but treat the stomach and GI symptoms



Bonus Magnesium Info

What if I need more than one form?

You can take more than one form of magnesium at a time! Some people like to do the magnesium threonate in the morning and magnesium bis-glycinate at night. Others prefer a blend of magnesium forms.

And who doesn't love a nice epsom salt bath?

Can I get enough magnesium in foods?

It depends on the quality of the food and how it was grown. Most of soil is nutrient depleted and that is why we are in higher need of supplementation.

For example, pumpkin seeds, Brazil nuts, and almonds do contain magnesium. You will need to eat 1/4-3/4 cup to get at least 100 mg of magnesium. Black beans, Edamame and Lima beans are approx. 50mg for 1/2 cup. Spinach and Swiss Chard are 70mg of MG for 1/2 cup cooked. Whole food diet is always my start point.

Can I take too much magnesium?

Yes it's possible! You might experience diarrhea, if that's the case. Recommended daily dosage is 300-500mg, higher intake must be under doctors supervision. I love to Repeat myself, but always start slow.

What about other minerals?

Magnesium is a mineral therefore it's important to consider other minerals in your life like, calcium, sodium, potassium, zinc and selenium.

Sodium, potassium, calcium and Mg are essential electrolytes.

Will my intestinal problems affect how magnesium is absorbed?

Yes, it might. Most magnesium is absorbed in the small intestines with a smaller percentage absorbed in the large intestine. If you struggle with small intestinal bacterial overgrowth, celiac disease or food allergies, inflammatory bowel disease, or gastric bypass surgery, you might struggle to absorb magnesium.

Also remember heartburn medications such as proton pump inhibitors tend to inhibit magnesium absorption as well.



Summary

In this e-book we delved into myriad benefits of magnesium, an essential mineral vital for health and wellbeing. We learned about Types of magnesium available, their use and mentioned some dosages. I have mentioned some sources but will add link with extensive list of Mg rich food. My favorite way of supplementing magnesium is powder form, mix of 3 because that way I can increase water intake. I hope this information will be helpfull and serve as a guide for individuals seeking to optimize their well-being.

Thank you, Coach Sasha



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