

How to Boost Magnesium Levels to Rebalance Your Hormones



If you're a busy modern woman, chances are you're deficient in magnesium and don't even know it. This multitasking mineral is needed for your body to complete around 300 enzyme responses. Many of these responses impact your natural hormone balance.

According to the Human Genome Project, more than 3,500 proteins also have binding sites for magnesium, which indicates it is a "must have" mineral with big health impacts.

Signs of Low Magnesium

In the short-term, low magnesium levels can cause:

- Muscle spasms, from feet cramps to chest pain (due to spasms in your heart muscle)
- Headaches
- Feeling constantly fatigued or weak
- Anxiety and edginess
- Loss of appetite
- Quick exhaustion during exercise: **Research** has found that during moderate activity, women with low magnesium levels in their muscle are likely to use more energy and tire far more quickly.
- Insomnia: Magnesium supplements are very effective for **improving sleep quality** and depth.

Long-Term, Chronic Magnesium Deficiency Has Been Linked to an Increase in:

- Heart arrhythmias and heart attack
- Depression
- Arthritis
- Kidney stones
- Fibromyalgia
- Inflammation
- Blood clots
- Inflammatory bowel disease or irritable bowel syndrome
- Seizures
- Numbness and tingling
- Stroke: Treating a patient with magnesium in the **first hour after a stroke** can quickly dilate blood vessels and help to reduce the damage from the stroke.
- **Osteoporosis**
- Hypertension: The **bigger the dose of magnesium**, the more it can lower your blood pressure.
- High cholesterol
- **Memory issues**: Animal studies show that magnesium supplementation can help reverse this.
- Heart disease: The good news? The Framingham health study has shown that self-reported magnesium intake is associated with less arterial calcification and therefore **less risk of heart attack** and stroke –

particularly in women.

The Magic Of Magnesium

Your body stores around half of its magnesium in the cells of your tissues and organs. The other 49% combines with calcium and is stored in your bones to keep them strong and healthy. This leaves just a small fraction of around 1% of free magnesium in your blood. This is why blood tests are not very helpful for checking magnesium because they don't show the levels in your cells.

Magnesium also works hand in hand with calcium, so if you take calcium supplements and/or plenty of dairy foods and not enough magnesium to balance this out, you can end up with a backlash in the form of painful joints or increased anxiety.

A “Super Mineral,” Magnesium Helps Your Body:

- Produce energy: It does this by attaching to an important energy molecule called adenosine triphosphate (ATP). It is also critical to how well your cells burn energy.
- Build bones, cell membranes and chromosomes
- Convert food into fuel
- Relax muscles
- Regulate body temperature
- Digest and utilize proteins, carbs and fats
- Build RNA and synthesize DNA
- Filter out toxins like mercury, aluminum and lead
- Produce glutathione, the ‘mother of antioxidants’
- Taxi ions like calcium and potassium across cell membranes – a process pivotal for nerve impulse conduction, muscle contraction and normal heart rhythms. Magnesium is the counter-ion for calcium and potassium in your muscle cells. This is why, if levels drop too low, your nerve signals and muscle contractions may be affected, leading to muscle cramps and heart arrhythmias.
- Keep cell function **synchronized** with day and night: Recent research has found in human cells, algae, and fungi that levels of magnesium in cells rise and fall in a daily cycle. This helps to keep the individual body clocks in your cells better synchronized to the circadian rhythm of night (dark) and day (light).

Magnesium and Your Hormones

HOW BALANCED MAGNESIUM LEVELS SUPPORT YOUR BODY

- + improves **thyroid** function
- + helps with **estrogen balance**
 - + **lowers** blood sugar
- + **reduces** adrenaline & cortisol
- + produces **testosterone**
 - + increases **DHEA**
 - + increases **serotonin**



When you have sufficient magnesium it helps to naturally balance hormones, benefiting your:

- **Thyroid function:** Magnesium helps convert the less active T4 thyroid hormone to the more active T3.
- **Estrogen balance:** Along with folic acid and the antioxidant glutathione, magnesium is critical to Phase II detoxification in the liver. During this process, estrogen metabolites are made water-soluble so that they can be excreted from the body in urine or your stool. But if you have insufficient magnesium, your liver may be less able to complete Phase II detox, which may contribute to estrogen dominance. ED can cause weight gain, fluid retention and also contribute to the development of cancers of the breast and ovaries. For more about this, take a look at my [post](#) about ED.
- **Ability to reduce adrenaline and cortisol:** As a calming hormone, magnesium helps to **reduce over-reactivity** in your Hypothalamic-Pituitary-Adrenal (HPA) axis. The upshot? You experience less anxiety and

stay calmer during stress, reducing your production of stress hormones. Cutting out coffee can also help stabilize your adrenals. To find out why, take a look at my [post](#).

- **Insulin Sensitivity:** Magnesium is so helpful for **lowering blood sugar** that some experts call it ‘natural metformin’ – in reference to the drug used to stabilize blood sugars in people with type II diabetes. When magnesium helps stabilize blood sugars, women feel fewer cravings for snacks and find it much easier to lose weight or maintain a healthy weight. Conversely, when people are deficient in magnesium their risk of impaired insulin and the development of type II diabetes shoots up.
- **Production of steroid sex hormones:** Magnesium is involved in pivotal processes that allow your body to produce estrogen, progesterone and testosterone.
- **Manufacture of DHEA and human growth hormone:** These are important anabolic hormones produced at night when we sleep. Magnesium **aids their production** by promoting better sleep quality and faster sleep onset. Improved sleep then allows your body to get on with the job of producing hormones and repairing cellular damage.
- **Serotonin Levels:** Magnesium helps to convert an amino acid called tryptophan into the important mood-boosting hormone serotonin. Serotonin also makes melatonin, which is needed for good quality sleep. Magnesium also helps regulate calcium ion flow in calcium channels in the brain. So when it is deficient, neuronal issues may reduce brain function and trigger depression. The more deficient you are in magnesium the higher the risk of **depression**. When magnesium supplementation is given to people with issues like depression and anxiety, the improvements can often be **miraculous**.

How Much Magnesium Women Need

The recommended Dietary Allowance (RDA) for magnesium is around 320 milligrams per day. If levels drop below this the ramifications can quickly be seen. In one [study](#) of postmenopausal women, when their intake of dietary magnesium was reduced to 130 mg, they quickly showed signs of magnesium depletion in their blood, red blood cells, and urine.

But **many women need a higher magnesium intake than the RDA** – particularly if they have genetic issues, conditions like thyroid autoimmune disease or problems like stress, that are robbing them of magnesium.

So, to settle on the best dose of magnesium you need to **listen to what feels right for your body**. If you overdo it, the biggest impact you might experience is loose stool and then you will know to reduce your daily intake. Some people require as much as 2000 mg to replenish.

To learn more about how to balance your hormones with supplements (and which to take), you can download our [FREE Supplement Guide here](#).

Causes of Magnesium Depletion

Even if you are taking supplements, you can still be magnesium deficient. Blame it on the following health issues and lifestyle factors, which can bind up, deplete or affect your magnesium levels:

Gut issues: Chronic belly issues such as diarrhea or inflammatory bowel conditions like Celiac disease or Crohn's disease can interfere with the health of your digestive system and its ability to absorb magnesium. To address gut issues and encourage a balance of good belly bacteria, take a look at my gut-friendly suggestions [here](#). A hormone-balancing diet of whole and plant foods can do a great deal to improve gut health. We have an entire collection of [hormone-balancing recipes](#) available on our blog for free and in my books, *Overcoming Estrogen Dominance* and *Cooking For Hormone Balance*.

Stress: Always rushing, stressing and feeling overwhelmed? Then your body keeps triggering your “fight or flight” response. It also dumps calming minerals like magnesium because it wants your entire system to be on high alert to run from a predator or stand and fight for your life. Unfortunately, you are hard-wired to perceive all stresses as potentially life-threatening, so you respond to losing your wallet or arguing with your partner as if you have just been attacked by a saber-toothed tiger. So if stress is your middle name you are likely to be deficient in magnesium.

To find out how to break this cycle, read my post on [How Adrenal Fatigue Causes Weight Gain, Fluid Retention and Exhaustion](#).

Soil depletion: Overfarming and use of pesticides and harsh chemical fertilizers have led to the depletion of minerals like magnesium in the soil where crops are being grown, which in turn causes lower levels of magnesium in our vegetables and fruit.

Food processing: You might think you're safe because you don't eat take-away burgers, fries or pizza. But that's not the kind of food processing I'm talking about. When we process foods in factories, it results in loss of minerals like magnesium – even if the foods are healthy. For example, polishing rice or processing whole grains to turn them into flour can result in around 60% loss of magnesium in the food.

Low stomach acid: This can interfere with your magnesium absorption. Don't presume that you have enough stomach acid – particularly if you have gut issues or an autoimmune disease. Instead, do this self-test: Buy some digestive enzymes that combine Hydrochloric acid and pepsin. Take one pill before a meal and have your food, then take 2 pills at the next meal and keep increasing the dose until you feel a burn or discomfort. When that happens, go back to the previous dose.

I've had times when my stomach acid has been so low that I've had to go up to 5 pills before a meal, but it really aided my digestion. Though lemon water and apple cider vinegar can have a similar impact, for some women they are just not enough. Also, one pill is roughly equal to one tablespoon of lemon juice or vinegar and most people would just find it too strong to have five tablespoons of apple cider vinegar in one go at every meal – which is why the hydrochloric pills are a better option.

Supplements to watch out for:

- **Zinc:** Taking around 142 mg of zinc a day can reduce levels of magnesium in some people, [research shows](#).
- **Iron:** This can bind to magnesium, lowering the free levels available to enter your cells. Instead of taking supplements consider ways to use more chicken livers, which are very good sources of iron. Try this quick and delicious [chicken pate recipe](#).

Oxalates: These natural chemicals in foods can bind up magnesium too. So don't overdo your intake of Swiss chard, spinach, chocolate, and nuts, and avoid soy altogether. If you have a morning smoothie with spinach, cacao and almond milk, that is just like an oxalate bomb. Instead, make green smoothies from leafy greens like mizuna and arugula, and use coconut milk instead of almond milk.

Kidney issues: These may be caused by misuse of diuretics, under-functioning kidney or issues like diabetes, leading your body to excrete more magnesium in your urine.

Medications: Birth control pills and antibiotics can leach your body of magnesium. So can diuretics, which is why some women complain that when they use diuretics for fluid issues, they also experience leg and foot cramps – particularly when doing exercise.

Alcohol: Just like diuretics, this magic mineral can also [leach magnesium](#) out of your body. The more you drink, the higher the risk of depletion.

Fluoride intake: Magnesium binds to fluoride, which means less is available to be used by your body. So invest in a good water filter as drinking unfiltered tap water could be robbing your body of magnesium. Many different medications also contain fluoride including anti-cholesterol drugs, some painkillers and anti-anxiety meds – so where possible, try to find non-drug ways to deal with health issues. For example, try using magnesium for headaches or slow breathing to deal with anxiety.

Aging: With age, our gut may simply not absorb nutrients as well – which is why studies show that older people often have lower levels of magnesium.

Magnesium-Rich Foods

As you know, my preference is to boost important nutrients by eating for hormone balance. These healthy foods can help replenish your magnesium levels:

- Seaweed: Go for varieties such as kelp, kombu and dulce. When making a broth put a strip of the seaweed in the soup so the magnesium leaches into the broth.
- Cruciferous vegetables: Including broccoli and cabbage
- Nuts: Including almonds, hazelnuts, pecans, cashews and Brazil nuts (which also contain thyroid-boosting selenium)
- Chocolate
- Swiss chard
- Buckwheat and millet
- Fish
- Brown rice
- Lima beans
- Okra
- Banana

You can learn how to add more hormone-balancing ingredients to your meals with our **FREE 19 Estrogen Balancing Superfoods Guide** [here](#).

Choosing the Right Magnesium Supplement

Sometimes, even if you are eating hormone-balancing foods, you need magnesium supplementation too. Here's a rundown on some supplement options:

- **Magnesium glycinate:** This is the Rolls Royce of magnesium because it is a gut-friendly form that is highly bioavailable and better tolerated, causing fewer side effects like diarrhea. I especially recommend the chelated form, which is broken into amino acids which do not compete for absorption with other minerals – making it highly bioavailable. I particularly like the **Wellena Magnesium Replenish**. This unique form of magnesium has been shown to be effective for individuals with the greatest impairments in magnesium absorption, including those with inflammatory bowel conditions, among whom the prevalence of overt magnesium deficiency may be as high as 86%. I recommend starting with one 300mg dose and then go up if you feel you're not seeing enough benefit.
- **Magnesium citrate:** Combines the mineral with citric acid and may have laxative effects. If you can't afford to buy magnesium glycinate, this is the next best option. If you are chronically constipated it is also a good choice because it can cause loose stools. I like the **Wellena Magnesium Citrate**.
- **Magnesium oxide:** This is the cheapest form of magnesium and is not well absorbed and may also cause diarrhea, I, therefore **don't recommend it**. You can tell the commitment of a supplement company to quality – if they use magnesium oxide, I generally won't trust it.
- **Topical magnesium:** One of my favorite ways of absorbing magnesium is through the skin, which allows you to bypass your digestive system, avoiding any digestive upset. Some women say they experience a wonderful sense of relaxation when applying magnesium oil on their feet and shoulders before bed. If the magnesium oil stings you, combine it with a little coconut or almond oil. **Try: Quick Magnesium** from Wellena.
- **Magnesium Crystals:** I don't particularly like the feel of oils on my skin so I prefer magnesium crystals. I use **Ancient Minerals**, which can be added to baths and foot baths. I add a cup in a hot magnesium bath twice a week and replenish my minerals while I relax.
- Though **Epsom salts** also contain magnesium, I can't tolerate them as they are in the form of magnesium sulfates. I have recently been working with a genetic expert and I have discovered that I have a double genetic mutation that does not allow my liver sulfation detoxification pathway to process sulfur efficiently. That explains why, when I did a floating tank that contained Epsom salts with a friend a few years ago he felt wonderful and it made me feel tired and generally unwell.

I hope this article has helped you find an appreciation for this wonderful mineral. Fixing it is easy and has helped many women rebalance their hormones quickly.

If you want to read up more about which forms of magnesium may be right for you, I recommend reading [this article](#).

I also invite you to learn about the Magnesium Rotation Method, an easy way to optimize your magnesium levels without having to micromanage your food intake. You can find out more about it [here](#).

Learn more with *Overcoming Estrogen Dominance*



“The body has an amazing ability to heal. We just need to give it the right resources.”

In *Overcoming Estrogen Dominance*, my goal is to empower and give you the tools to take control of your hormones and health.

More than 70% of women experience estrogen dominance. The symptoms range from lumpy and fibrocystic breasts to thyroid nodules, hot flashes, fibroids, uterine polyps, painful, heavy or irregular periods to infertility and miscarriages, from mood swings to insomnia, weight gain to fatigue.

So many women have experienced the pain and frustration that comes when they feel their symptoms and complaints are dismissed or minimized. This is particularly true for women who are experiencing the symptoms

of hormone imbalance. Even when doctors do offer treatment, it's typically in the form of prescription medication or invasive surgical procedures.

In *Overcoming Estrogen Dominance*, I hope to show that those extreme interventions are often unnecessary, and to give women a roadmap to reverse estrogen dominance using food, herbs, supplements and natural protocols to rebalance hormones.

To get your copy of *Overcoming Estrogen Dominance*, go [here](#).