# About Epsom Salts (MgSO<sub>4</sub>·7H<sub>2</sub>O)

Magnesium is the second-most abundant element in human cells and the fourth-most important positively charged ion in the body, so it's little wonder this low-profile mineral is so vital to good health and well being. Magnesium, a major component of Epsom Salt, also helps to regulate the activity of more than 325 enzymes and performs a vital role in orchestrating many bodily functions, from muscle control and electrical impulses to energy production and the elimination of harmful toxins.

The National Academy of Sciences, however, reports that most Americans are magnesium deficient, helping to account for our society's high rate of heart disease, stroke, osteoporosis, arthritis and joint pain, digestive maladies and stress-related illnesses, chronic fatigue and a host of other ailments. The Academy estimates the average American male gets just 80% of the magnesium required for good health, while females get only 70% of their recommended levels. Nutritionists say Americans' magnesium levels have dropped more than 50% in the past century.

# Better health through soaking

Magnesium can be ingested as a nutritional supplement, but studies show that a wide variety of factors - the presence of specific foods or drugs, certain medical conditions, even the individual chemistry of a person's stomach acid - can interfere with their effectiveness. But all of the subjects in a recent study experienced increased magnesium levels from soaking in a bath enriched with magnesium sulfate crystals, commonly known as Epsom Salt.

Researchers and physicians report that raising your magnesium levels may:

- Improve heart and circulatory health, reducing irregular heartbeats, preventing hardening of the arteries, reducing blood clots and lowering blood pressure.
- Improve the body's ability to use insulin, reducing the incidence or severity of diabetes.
- Flush toxins and heavy metals from the cells, easing muscle pain and helping the body to eliminate harmful substances.
- Improve nerve function by regulating electrolytes. Also, calcium is the main conductor for electrical current in the body, and magnesium is necessary to maintain proper calcium levels in the blood.
- Relieve stress. Excess adrenaline and stress are believed to drain magnesium, a natural stress reliever, from the body. Magnesium is necessary for the body to bind adequate amounts of serotonin, a mood-elevating chemical within the brain that creates a feeling of well being and relaxation.

While increasing your magnesium levels, Epsom Salt also delivers sulfates, which are extremely difficult to get through food but which readily absorb through the skin. Sulfates serve a wide variety of functions in the body, playing a vital role in the formation of brain tissue, joint proteins and the mucin proteins that line the walls of the digestive tract. Sulfates also stimulate the pancreas to generate digestive enzymes and are believed to help detoxify the body's residue of medicines and environmental contaminants.

# **Health Benefits**

Studies show these benefits from the major components of Epsom Salt may:

# Magnesium:

- Ease stress and improves sleep and concentration
- Help muscles and nerves function properly
- Regulate activity of 325+ enzymes
- Help prevent artery hardening and blood clots
- Make insulin more effective
- Reduce inflammation to relieve pain and muscle cramps
- Improve oxygen use

# **Sulfates:**

- Flush toxins
- Improve absorption of nutrients
- Help form joint proteins, brain tissue and mucin proteins
- Help prevent or ease migraine headaches

#### Starved for magnesium

A variety of factors contributes to the nation's magnesium deficiency. Intensive farming practices deplete magnesium from the soil, and magnesium is not a standard component in most fertilizers. Therefore, a diet that would have supplied enough magnesium a century ago may not supply enough today.

At the same time, average Americans eat diets far less healthy than their ancestors ate. The typical modern diet, rich in fat, sugar, salt and protein, not only contains less magnesium than a balanced diet does; these same foods actually accelerate the depletion of magnesium from our systems.

So, too, does our emphasis on calcium as an antidote for bone disease; calcium drains magnesium from the body, and calcium can only perform its role in the cells when sufficient magnesium is present. Studies indicate that taking a calcium supplement without ensuring the body also receives enough magnesium can therefore amplify the shortage of both nutrients. Researchers have found that most Americans have five times as much calcium as magnesium in their bodies; the proper ratio for optimum absorption of both minerals is about two to one.

#### Why it works:

Magnesium - the key component of Epsom Salt -- performs more functions in more systems of the human body than virtually any other mineral, including regulating the activity of more than 325 enzymes.

#### Studies show that magnesium is:

- An electrolyte, helping to ensure proper muscle, nerve and enzyme function.
- Critical to the proper use of calcium in cells.
- An aid in helping to prevent heart disease and strokes by lowering blood pressure, protecting the elasticity of arteries, preventing blood clots and reducing the risk of sudden heart attack deaths.

## Medical research also indicates that magnesium may:

- Increase the effectiveness of insulin, helping to lower the risk or severity of diabetes.
- Reduce inflammation and relieves pain, making it a beneficial in the treatment of sore muscles, bronchial asthma, migraine headaches and fibromyalgia.

Although magnesium can be absorbed through the digestive tract, many foods, drugs and medical conditions can interfere with the effectiveness of this deliver method. Therefore, soaking in an Epsom Salt bath is one of the most effective means of making the magnesium your body needs readily available.

Epsom Salt also delivers sulfates, which medical research indicates are needed for the formation of brain tissue, joint proteins and the mucin proteins that line the walls of the digestive tract. Studies show that sulfates also stimulate the pancreas to generate digestive enzymes and help to detoxify the body's residue of medicines and environmental contaminants. Studies indicate that sulfates are difficult to absorb from food, but are readily absorbed through the skin.

# **Health Usage Tips**

- For compresses: Use 2 cups of Epsom Salt per gallon of water for sore muscles, bug bites and splinter removal.
- For soaking: Add two cups of Epsom Salt to warm water in a standard-sized bathtub. Double the Epsom Salt for an oversized garden tub. Popular for easing muscle pain and fading bruises. Bathe three times weekly, soaking for at least 12 minutes.
- Foot bath: Add a cup of Epsom Salt to a tub of warm water as a popular balm for aching feet.
- Laxative: Consult the package directions for instructions.