

# NUTRITION VIA SKIN

## Transdermal Magnesium

*The great benefit of transdermal magnesium is that you absorb magnesium via the skin much more efficiently than if you were to ingest tablets and powders, which are hard to digest and absorb properly through the bowel wall, and especially if the digestive system is compromised by IBS. Also, the older we get the less stomach acid is produced, which makes it more difficult to break down magnesium tablets in the stomach. Most people are lucky if they even get 20% of the magnesium from tablets making it to the tissue cells of the body. If you try to compensate by taking extra oral doses then you can liquefy the stool, in which case the magnesium is lost too quickly and doesn't make it to the cells either. Magnesium chloride has been found to be the most bioavailable form of magnesium.*

Transdermal absorption of minerals has been done for thousands of years as people discovered that when they soaked in mineral-rich hot springs, they would have a healing effect and rejuvenation. This process is called 'Balneotherapy' and was tested extensively in studies by Russian scientists.

Now you can do it much more cheaply in the comfort of your own home via footsoaking in a bucket of hot water and a tablespoon of Elektra Magnesium Flakes for half an hour (or you can have a bath with a cup of flakes). You can also make an alkalisng mouth wash that inhibits the build-up of calc deposits because magnesium pairs with excess calcium and moves it into the bones. Our high concentration magnesium water-based solution, Magnesium Oil Spritz with aromatherapy fragrances, is also ideal for massaging into tight muscles or sore joints for relaxation and stimulation of blood flow to promote healing.

In addition, you can absorb magnesium via Elektra Magnesium Cream with specially blended natural plant oils infused with our flakes (magnesium chloride hexahydrate 15%). Not only is it a superb moisturizer, keeping the skin hydrated, soft and supple, but it is also a delivery system for magnesium. 13g (about a dessertspoonful) gives you 300mg of elemental magnesium, which is an average daily dose if you are reasonably healthy. People with very oily skin may find the cream slower to absorb, in which case application of Magnesium Oil Spritz plus magnesium footsoaking is preferred, and can help with refining pores and alleviating acne. The magnesium cream is best for people with normal to dry skin due to its rich moisturising and conditioning effects. Magnesium ions pass through the epidermis more easily when the skin is well hydrated, which is assisted by application of plant oils or by hot water soaking with magnesium.

**SAFE:** Some people need up to 1000mg per day if they have severe magnesium deficiency caused by high stress, excessive physical exercise, sleep deprivation, drugs, burns, operations or any other traumas or stresses. In this case they would need to combine a number of the above methods. The more opportunity you give your body to absorb what it needs the better. The body takes up only the mineral ions without having to digest and break apart the magnesium compound as in digestion. You can never overdose via the skin, as absorption stops when saturation is reached. The danger is not in getting too much, but in not getting enough magnesium. Think of it as offering your body a 'smorgasbord' of magnesium minerals and trace elements to choose from what it needs. You don't know exactly how much your body needs, but it knows. This need will also change from day to day depending on stresses (as magnesium is wasted under stress). Remember, there is only 1% of magnesium in blood

plasma, and it is transient, so blood tests for magnesium can be inaccurate. 99% of magnesium is in the tissue cells. When your body recovers its proper magnesium reserves, the symptoms of magnesium deficiency disappear.

**Symptoms of magnesium deficiency** can include: heart arrhythmias, chronic fatigue, headaches, muscles cramps, twitches and restless legs, acute stress response, irritability and anxiety, insulin and blood sugar (metabolism) disorders, dry skin conditions like dermatitis, eczema and psoriasis, joint pain, inflammation, immune system disorders, vascular tension and high blood pressure and hypercalcaemia (depositing excess calcium in the soft tissue and joints).

### TRANSDERMAL ABSORPTION STUDY 2011:

Gorbunov & Vakhrushev. 'Efficacy of Balneotherapy in Cholelithiasis'.

"The treatment relieved pain syndrome, dyspeptic symptoms, enhanced absorption-excretion function of the liver, prolonged the time of maximal gallbladder filling, shortened radiopharmaceutical half-life in the gallbladder, raised the level of trace elements (magnesium, iron, potassium) in the bile, improved gallbladder contraction and lithogenic bile characteristics."

**DHEA:** Dr Norman Shealy proved in a study that magnesium chloride, when applied transdermally, increases DHEA production. This effect is not seen in oral or intravenous administration. It is thought that transdermal absorption of magnesium interacts with the fatty tissues of the skin to create the effect. Studies link low levels of DHEA to chronic inflammation, immune dysfunction, depression, rheumatoid arthritis, type II diabetes complications and greater risk of cancers, heart disease and osteoporosis.

**Magnesium is the Master Mineral – the trunk of the nutritional tree that supports and enhances enzyme activity and the work of other nutrients. It is the main building block of the cell and regulates our nervous system, endocrine system and electrolyte balance. Magnesium is essential in: ATP energy production in the cells, repairing DNA links, insulin and blood sugar regulation, production of collagen in connective tissue, bone mineralisation, and in detoxification. Chronic magnesium deficiency over time leads to degenerative diseases such as heart disease, diabetes, immune system disorders and cancer. In other words, low magnesium ages and decays us faster.**

*This information is for educational purposes only. Please see studies and articles on our website.*

Elektra Life Pty Ltd  
abn 54 133877693  
P.O. Box 1347  
Nerang 4211, QLD  
Ph: (07) 5533 1088  
Fx: (07) 5533 1283  
magnesium@elektralife.com  
www.elektralife.com

