

What Studies Prove Transdermal Magnesium is Effective?

Dr. Norman Shealy

Dr. Norman Shealy, M.D. Ph.D. and founder of the American Holistic Medical Association, was an early advocate for the advantages of magnesium and the particular benefits of transdermal applications of magnesium:

The problem is magnesium absorption, as well as magnesium deficiency in our diets. The soil in every country in the world except Egypt has been farmed to a point of magnesium depletion... Furthermore, magnesium salts are laxatives so that all of them may lead to a more rapid gut transit time. Magnesium needs to travel through the intestinal system slowly, so if the gut transit time is less than twelve hours, one is not likely to absorb the magnesium well.”

Upon being introduced to the potential of liquid soaks for magnesium and natural DHEA stimulation, Dr. Shealy, a trained neuroscientist and medical researcher who studied at Duke University, performed experiments to test the ability of the skin to absorb magnesium.

Sixteen individuals with low intracellular magnesium levels were enlisted in his study. Participants were instructed to perform a 20 minute foot-soak daily with transdermal magnesium chloride bath flake, in addition to spraying their entire body once daily with magnesium oil. Intracellular magnesium levels were assessed on all participants after 4 weeks, utilizing a diagnostic called [ExaTest](#). The results – 12 of the 16 participants in the study showed marked improvements in their intracellular magnesium levels.

Averaged diagnostic results after 4 weeks of daily body spraying and foot soaks:

Electrolyte Name	Before	After	Reference Range
Magnesium	31.4	41.2	33.9 – 41.9
Calcium	7.5	4.8	3.2 – 5.0
Potassium	132.2	124.5	80.0 – 240.0
Sodium	3.4	4.1	3.8 – 5.8
Chloride	3.2	3.4	3.4 – 6.0
Phosphorous	22.2	17.6	14.2 – 17.0
Phosphorous/Calcium	4.2	8.6	7.8 – 10.9
Magnesium/Phosphorous	1.4	2.3	1.8 – 3.0
Magnesium/Calcium	4.2	8.6	7.8 – 10.9
Potassium/Calcium	17.6	26.1	25.8 – 4.6
Potassium/Magnesium	4.2	3.0	2.4 – 4.6
Potassium/Sodium	39.1	30.5	21.5 – 44.6

Dr. Shealy’s conclusion was that the unique properties of supersaturated transdermal magnesium allow it to be absorbed into the skin, raising intracellular magnesium levels in nearly all individuals.

In discussing transdermal magnesium therapy versus oral magnesium supplements, Dr. Shealy has explained that:

- Transdermal therapy creates “tissue saturation”, which allows magnesium to travel to the body’s tissues and cells at a high dose without losses through the gastrointestinal tract.

When taken orally, however, magnesium may be absorbed inefficiently, either due to the laxative effect of oral doses; due to the effect of other foods, vitamins or minerals in the gut that lessen absorption; or due to individual differences, such as leaky gut syndrome, that reduce magnesium processing.