

# Trace mineral supplement

- AIDS CALCIUM ABSORPTION
- HORMONE METABOLISM



**Boron** is a recently discovered trace element which influences the metabolism of nutrients involved in the maintenance of strong bones and may play a role in hormone regulation. Known to nutritional professionals as the “calcium helper”, boron plays a vital role in bone health because it assists calcium absorption and utilization in the body.

Boron is a trace element, which influences calcium and magnesium metabolism. Although no recommended dietary allowance (RDA) has been established for boron, the average daily intake is highly variable, having been estimated at between 0.5 and 7 mg per day. Boron is found in most tissues, but is concentrated in the bone, spleen, and thyroid, indicating boron’s functions in bone metabolism and suggesting a potential role for boron in hormone metabolism. Boron is found in relatively high levels in foods of plant origin, such as black beans, peaches, apricots, spinach, strawberries, apples, cantaloupe and tomatoes. Many of us do not get enough of these items in our diet and boron supplements can help. Meat and fish are poor dietary sources of boron.

A “boosts testosterone” claim is based on a USDA study of boron-deprived postmenopausal women in which boron supplements increased testosterone levels. Serum testosterone levels in deficient postmenopausal women, however, are more than 10 times lower than those found in normal men and in strength athletes. There are no studies to suggest that boron supplementation alone will augment testosterone production or promote muscle growth in healthy men. In fact, a number of studies have shown no effect of boron supplements on serum testosterone in either men or women consuming a typical diet. Studies among bodybuilders have yielded similar “non-effects” of boron supplements on measures of lean body mass, body fat and strength. Low boron diets have been associated with reduced testosterone levels and boron supplements have been shown to increase serum levels of testosterone in deficient postmenopausal women. This finding has spawned a number of boron supplements targeting athletes and bodybuilders and touting the benefits of boron for boosting testosterone levels, strength and muscle mass. As part of a balanced multi-vitamin/mineral supplement, boron may have beneficial effects on maintaining adequate calcium and magnesium metabolism for optimal bone health. Athletes, if not deficient, looking to use boron

supplements as an answer to increasing serum testosterone levels and improving muscle mass and strength should look elsewhere.

A review of animal and human research on boron yielded the following information, which points to a much more comprehensive view of boron.

Deficiency in boron has been shown to contribute to:

- Abnormal embryo development;
- Decreased sperm count;
- Ovarian deterioration;
- Damage in reproductive function;
- Decrease in electrical activity in the brain;
- Suboptimal mineral metabolism;
- Poor manual dexterity;
- Impaired hand-eye coordination

Boron supplementation was found to:

- Increase steroid hormone levels (testosterone) if deficient;
- Increase bone growth and strength;
- Augment estrogen function and therefore may help prevent atherosclerosis;
- Improve brain function and cognitive functioning;
- Reduce LDL cholesterol;
- Affect thyroid hormone levels;
- Alleviate harmful effects of vitamin D, magnesium, and potassium deficiency in postmenopausal bone loss;
- Play a role in the prevention of osteoporosis;
- Be of benefit in the treatment of arthritis;
- Prevents calcium loss in postmenopausal women.

#### Each vegetable capsule contains:

Boron (rice protein chelated) . . . . . 3 mg

Non-medicinal ingredients: Vegetable magnesium stearate and silicon dioxide, in a NON-GMO vegetable capsule composed of vegetable cellulose and purified water.

Contains no: Preservative, artificial flavour or colour, sugar, starch, milk, wheat, corn or soy.

#### Suggested use:

As a dietary supplement, take 1 capsule daily with a meal.

Keep out of reach of children.

*Manufactured under strict GMP (Good Manufacturing Practices)  
New Roots Herbal at 1-800-268-9486 or [www.newrootsherbal.com](http://www.newrootsherbal.com)*