

Macrominerals balance the level of salts between cells and their environment by regulating cell pressure, and aiding electrical conductivity of ions (called *electrolytes*). Minerals help manage water pressure balance during the huge fluctuations in hydration during the day. Minerals are important to balance pH (acidity-alkalinity) in body fluids, and deposit into bone to make it strong. Minerals come from the earth, and are absorbed and stored into plants through the roots. When animals eat these plants, certain minerals become available to us when we eat them, or directly from plants. Plants with bulbous roots store minerals the best, including: celery, potato, parsnips, beets, carrots, jicama, sunchoke, and yams. “Multivitamins” are not recommended. Use a daily pill minder to portion your supplements for the week. Keep supplement bottles tightly sealed in a dark, cool location.

Calcium is important for bones because they are constantly breaking themselves down & re-building to adjust for changes in load usage, like during strength training. Calcium deposits form teeth, regulates blood pressure, secretion of hormones into the body and all muscle contraction. Blood-calcium balance is tightly controlled in the body. Form: Calcium citrate
RDA for Men*: 1000/1200 mg Women*: 1000/1200 mg
Sources: calcium citrate, spinach, peanuts, walnuts, herring, sardines, skim milk

Phosphorus is important in buffering body fluid acidity, renewal of tissues, DNA, energy release, and metabolism of energy nutrients. Phosphorus needs calcium and vita D.
RDA for Men: 700 mg Women: 700 mg
Natural sources: fish, meat, poultry, legumes, eggs, nuts, seeds

Magnesium is critical to many cell functions including the operation of about 300 enzymes and for the release of energy. Magnesium stimulates muscle relaxation after contraction. It binds calcium to teeth, delaying decay. Form: Magnesium glycinate
RDA for Men: 400/420 mg Women: 320 mg
Natural sources: greens, whole grain, seafood, figs, corn, oils, almonds, apples

Sodium is part of the body’s fluid and electrolyte balance. It is important for muscle contraction by facilitating electrical conductivity. Too much sodium causes high-blood pressure, hypertension, CV disease, water retention and brain damage.
Sodium: RDA less than 1500 mg either gender.

Potassium is part of the body’s fluid and electrolyte balance. It is important for muscle contraction by facilitating electrical conductivity, especially for the heart. Form Potassium gluconate
RDA for Men: 3400 mg Women: 2600 mg
Potassium sources: legumes, squash, beef, citrus, melon, prunes, beets, avocado

Chloride is part of the body’s fluid and electrolyte balance. It is important for muscle contraction by facilitating electrical conductivity, assisting in producing stomach acid, and balancing whole-body pH balance.
RDA for Men: 2300 mg Women: 2300 mg
Potassium sources: legumes, squash, beef, citrus, melon, prunes, beets, avocado

Iron is the basic component of blood. It binds oxygen in the lungs and transfers it through vessels. Iron is recycled when a blood cell dies.
RDA for Men: 8mg Women: 18/8 mg
Natural sources: organ meats, oysters, yolk, nuts, legumes, molasses, sardines

Zinc interacts with the functions of: insulin, growth hormone, testosterone, estrogen and over 200 enzymatic reactions. It blocks exercise-induced free-radicals in the bloodstream and supports immune function by preventing infection. Form: Zinc blend: citrate, picolinate, chelate
RDA for Men: 11mg Women: 8mg

Natural sources: oysters, oats, many kinds of nuts, meat, pepitas, vegetables

Selenium is involved with the formation of thyroid hormones (metabolic regulator) and has an antioxidant effect, slows aging, enhances male reproduction.

RDA for Men: 55mcg Women: 55 mcg

Natural sources: oysters, oats, many kinds of nuts, onion, tomato, low-fat dairy

Iodine is involved with the formation of thyroid hormones (metabolic regulator) and has an antioxidant effect, slows aging, enhances male reproduction.

RDA for Men: 150 mcg Women: 150 mcg

Natural sources: oysters, oats, many kinds of nuts, onion, tomato, low-fat dairy

Manganese is vital for bone health, metabolism, and immune response. It acts a co-Factor (helper ion) to break down nutrients, and aids cells from free radical damage. Form: Manganese chelate

RDA for Men: 2.3 mg Women: 1.8 mg

Natural sources: nuts, brown rice, spinach, chickpeas, shellfish

Molybdenum is a co-factor (helper ion) with enzymes that detoxify harmful substances and process proteins and genetic material. Form: Molybdenum glycinate chelate

RDA for Men: 55/55 mcg Women: 55/55 mcg

Natural sources: legumes, whole grains, nuts and leafy greens.

Chromium assists to regulate insulin, and break down nutrients. Form: Chromium picolinate

RDA for Men: 35 mcg Women: 25/20 mcg

Natural sources: meat, seafood, eggs, brewer's (nutritional) yeast, broccoli

Vitamin D3 + K2 assists in the absorption of calcium into the bloodstream, along with binding it into the bone, and prevents calcium from accumulating in the arteries as plaque. D3 contributes to immune function against viral infections.

D3 RDA for Men under 70: 600 mcg, over 70: 800 mcg Women under 70: 600 mcg, over 70: 800 mcg

K2 RDA for Men under 50: 120 mcg, over 50: 200 mcg Women under 50: 90 mcg, over 50: 100 mcg

K2 RDA over 50: Take form MK-7

* Men years 25-50/ 50+ Women years 25-50 (not pregnant)/ 50+ (adjust for menopausal phase, or as directed by your physician) Individuals with diagnosed health conditions should follow the advice of a physician or registered dietician. The Tolerable Upper Intake Level (UL) is the highest amount of a daily nutrient that is unlikely to cause any negative health effects for almost everyone in the general population.

Supplement Shopping List: *(do not substitute other forms: not 'any' calcium, only calcium citrate)*

1. Calcium Citrate 1000mg
2. Magnesium Glycinate 400mg
3. Potassium Gluconate 595mg (4-6 per day)
4. Iron (Ferrous) Sulfate 8mg
5. Zinc Glycinate 10mg
6. Selenomethionine 55mg
7. Manganese Chelate (bisglycinate) 2mg
8. Molybdenum Glycinate Chelate 55mcg
9. Chromium Picolinate 25mcg
10. D3+K2 125mcg + 50mcg