THE BASICS: Selenium is an essential dietary mineral. Its principal function is as a constituent of four glutathione peroxidase molecules, which are among the most powerful antioxidants and immune boosters made by the body. Studies have shown that selenium can help fight infections, maintain brain function in the elderly, and prevent some cancers.

ALIAS: Several forms of selenium are found in supplements, including selenomethionine, high-selenium yeast, selenium picolinate, selenium citrate, selenium aspartate, sodium selenite, and sodium selenate.

HOW IT WORKS: By itself, selenium appears to have little biological activity. However, as part of glutathione peroxidases and selenium-containing proteins, it has far-reaching health benefits. Via glutathione peroxidases, selenium helps the body break down hydrogen peroxide, one of the most dangerous generators of free radicals, into water. Selenium also plays a crucial role in the formation of thyroid hormones.

HEALTH BENEFITS: Supplemental selenium has many important health benefits.

- Brain function. Selenium may help keep aging minds sharp. In one study, French researchers studied approximately 1,400 older men and women for nine years. They found that cognitive function closely paralleled selenium levels, and the greatest decrease in cognitive function occurred among people with the lowest blood levels of selenium. Meanwhile, in a study of 2,000 elderly subjects, American and Chinese researchers found that high selenium levels were associated with better mental function, while poor test scores were related to low selenium levels.

- Fighting infections. Almost 20 years ago, researchers reported that selenium supplements were beneficial in the treatment of HIV (human immunodeficiency virus) infections. In a recent study, researchers at the University of Miami treated 174 HIV-positive men and women with either placebos or 200 mcg of selenium daily for nine months. Patients who consistently took the selenium supplements had immune cell increases, and decreases in viral load, according to a report in the Archives of Internal Medicine. In contrast, those who took placebos or failed to consistently take daily selenium supplements had substantial increases in viral concentrations. It's likely that selenium helps fight other infections as well.

- Preventing viral mutations. Selenium also prevents mutations in coxsackie and influenza (flu) viruses, which cause
symptoms similar to those of the common cold. That's important because mutations in selenium-deficient people and animals result in much more dangerous viruses. One study found that selenium supplements help people effectively respond to the polio virus and polio vaccines, a benefit that may extend to other vaccines.

- Cancer protection. A study in the *Journal of the American Medical Association* reported that taking selenium supplements (200 mcg daily for 4.5 years) lowered the risk of prostate, lung, and colorectal cancers by more than one-third. Another study found that high selenium levels were associated with a relatively low risk of developing colorectal adenomas, a type of cancer. Selenium supplements may be particularly beneficial for women who inherit mutations in the BRCA “cancer gene.”

Normally, this gene helps repair damaged genes, but the mutation increases the risk of breast and ovarian cancers. In a study of 32 women with BRCA gene mutations, researchers noted that they had a high rate of chromosome breaks, a cancer risk factor. However, after taking selenium supplements for just three months, the rate of mutations decreased to that of women with normal rates.

**BACKGROUND CHECK:** Selenium was recognized as essential for people in 1957—relatively recent as nutrition research goes. It has some synergies with vitamin E.

**GLEANINGS:** Toxicologists have long known that adequate selenium intake helps prevent mercury toxicity.

**HEADS UP:** A recent study suggested that selenium supplements increase the risk of type 2 diabetes. But the finding contradicts virtually all other research on selenium. Even the researchers themselves noted weaknesses in their data, pointing out that their subjects self-reported their diabetes (i.e., it was not necessarily diagnosed by a doctor) and that a handful of cases one way or the other would have negated their findings.

**WHAT YOU SHOULD TAKE:** It's prudent to take 200–300 mcg daily as a stand-alone supplement or as part of a multivitamin/multimineral supplement. It's also safe to go up to 600 mcg daily for short periods, such as when fighting a cold or flu. To use higher doses in the treatment of serious diseases, such as HIV infection, work with a nutritionally oriented physician.

---

**Sanhelios® introduces PUMPKIN POWER**

With 1000 mg of a rare European pumpkinseed oil, Curbita™ Bladder Caps has the unique ability to enhance bladder function for men and women.* It helps strengthen bladder muscles while supporting normal emptying of the bladder through the calming effect of this high dosage pumpkin power capsule.*

*Curbita — now at fine health food stores like the store listed on the cover of this magazine.

For $2.00 Coupon Call
Bioforce USA 1-800-641-7555

*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.
Copyright of Better Nutrition is the property of Active Interest Media, Inc. and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.