

BIOMEDICINE

Can selenium avert prostate cancer?

A large study of men indicates that intake of the mineral selenium may help ward off prostate cancer.

Researchers examined questionnaire data and analyzed toenail clippings from 33,737 men, ages 40 to 75. A person's toenails serve as "10 little time capsules" storing records of mineral intake, says study coauthor and epidemiologist Walter C. Willett of Harvard University School of Public Health in Boston.

After accounting for confounding factors such as smoking history and age, the researchers found that men with advanced prostate cancer were likely to have lower selenium concentrations in their bodies than men without the disease. The scientists matched 181 prostate-cancer patients with 181 similar men without prostate cancer—all within the large study group. This comparison revealed that the healthy men had 0.96 micrograms of selenium per gram of toenail, compared with 0.82 micrograms for the cancer group, Willett and his colleagues report in the Aug. 19 *JOURNAL OF THE NATIONAL CANCER INSTITUTE*.

Selenium is an essential nutrient, although toxic in large doses. It is present in many meats, grains, and legumes, but amounts vary according to the soil content in which the food and livestock feed was grown (*SN: 1/4/97, p. 6*).

The mineral plays a key role in cell functions and may protect DNA and other cellular molecules against damage. Still, how it might work against cancer remains unclear, Willett says. A follow-up study could entail giving some men selenium and others an inactive substance to discern any differences in prostate cancer occurrence, he says.

—N.S.