

BRAIN MATTERS

Sunshine Vitamin Linked to Lower MS Risk

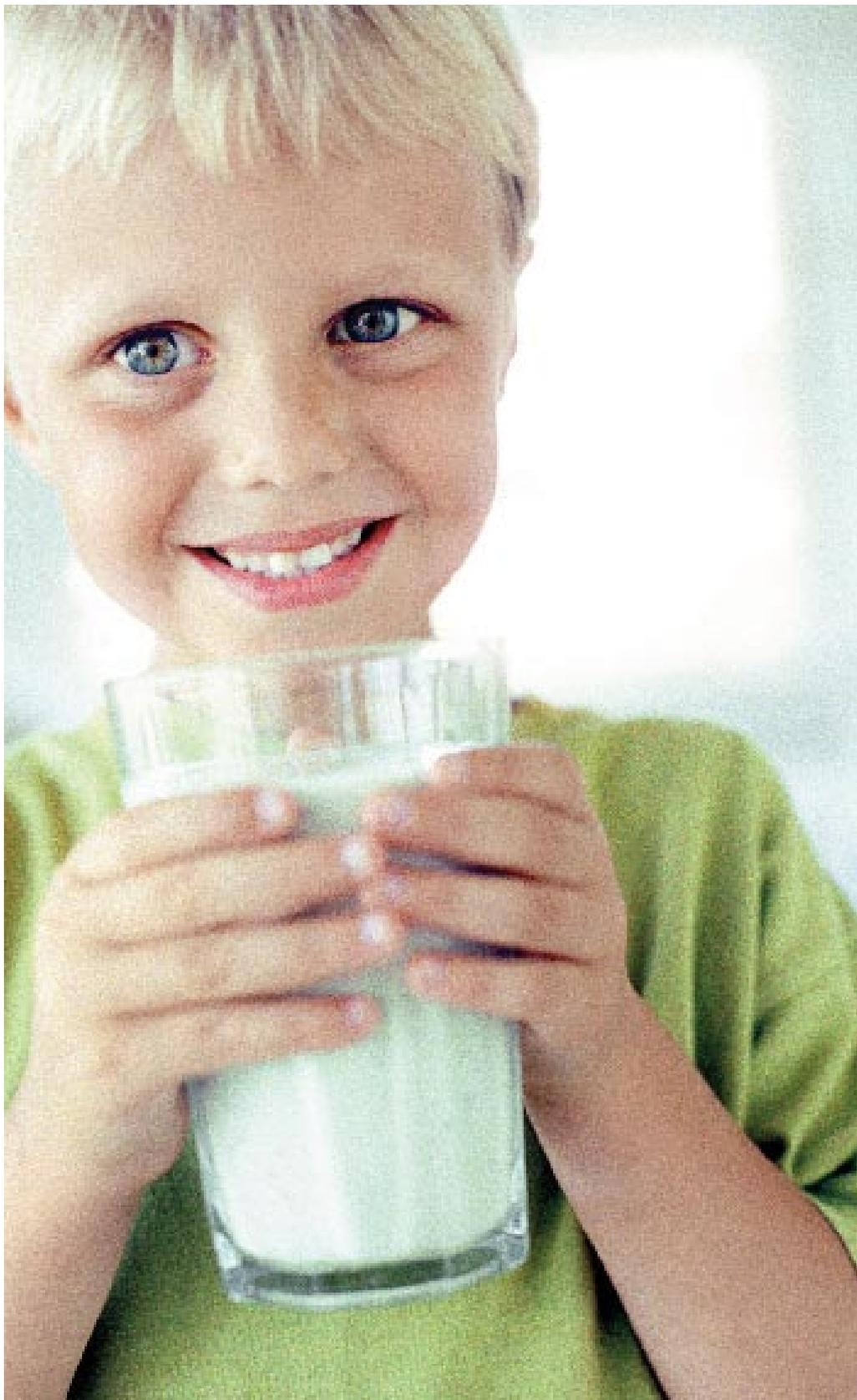
Vitamin D—which we get from sunlight, milk, and eggs—might lower the risk for developing multiple sclerosis (MS), according to a new study in the *Journal of the American Medical Association*.

Researchers analyzed blood samples from more than seven million members of the U.S. military, and found a 62 percent lower incidence of MS in white soldiers younger than 20 who had the highest levels of vitamin D.

Lead researcher Alberto Ascherio, M.D., Ph.D., of Harvard University's School of Public Health, says the effect was not seen in Hispanics and African-Americans, but he notes that their numbers were fewer in the sample and their darker skin pigmentation potentially acts as a sunscreen.

Raising vitamin D levels with supplements before adulthood might be particularly important, according to Dr. Ascherio. "If the findings can be confirmed in other large studies, it suggests that many cases of MS might be prevented," he adds.

The Food and Drug Administration (FDA) currently recommends 400 International Units of vitamin D each day, far too little to achieve the protective levels in the study. Higher doses of vitamin D can cause toxicity and kidney stones. Research suggests that 1000 to 2000 units can be safely taken each day, Dr. Ascherio notes, and the FDA is considering doubling the current recommended daily allowance to 800 units.



Brain Stimulation Works Earlier in Parkinson's



Deep brain stimulation (DBS) is typically reserved for patients with advanced Parkinson's disease when medications no longer control their involuntary movements, usually after the disease has progressed for 10 or 15 years.

But researchers in France have demonstrated for the first time that the procedure appears to work just as well, if not better, in younger patients with milder symptoms. The procedure has enabled them to resume their careers and improve their overall quality of life, according to a new study in *Neurology*.

DBS requires surgery to implant tiny electrodes in the part of the brain that controls movement; they are then attached to a battery-powered device similar to a heart pacemaker that delivers regular electrical pulses. These pulses can relieve motor symptoms long after medications have failed. Younger patients seldom receive DBS because of concerns about surgical complications.

Michael Schüpbach, M.D., a movement disorders researcher at the Groupe Hospitalier Pitié-Salpêtrière in France, tested DBS in 20 patients within five years of their diagnosis. All had mild to moderate symptoms that had initially responded well to medication, but gradually worsened. After 18 months, their motor symptoms improved by 69 percent and medication doses were reduced by 57 percent. In contrast, symptoms in a comparison group of medication-only patients continued to worsen.

"Until now, DBS has been used as a last resort in patients only after their symptoms become so advanced, even with medication, that there is no other option," says Dr. Schüpbach. "Many of our patients were in their 50s and even 40s. The surgery improved their overall quality of life by 24 percent."

Stroke Rate Declines, but Severity Remains Unchanged

A mixed bag of news from a new study in *The New England Journal of Medicine*: The number of strokes in the U.S. has edged downward over the past 50 years, but the overall lifetime risk has not declined at the same rate.

Researchers at Boston University School of Medicine examined data on more than 9,000 participants in the Framingham Heart Study, the largest and longest-running study of cardiovascular disease and risk.

The researchers observed several positive trends: improved

with increased prevalence of diabetes in women, atrial fibrillation in men, and a higher mean body mass index for both sexes.

"The severity of stroke has not decreased and 30-day mortality has decreased only in men," says neurologist and lead researcher Ralph Carandang, M.D. "That could be because men are older when they have strokes, and women experience more severe strokes.

"These sobering trends emphasize that while improved control of risk factors has lowered incidence of stroke, there is a need for greater primary prevention efforts to reduce lifetime risk, severity, and 30-day mortality following stroke," he says.

New Drugs Help Reduce Stubborn Seizures

Medications can reduce the frequency and severity of seizures in most epileptic patients, but between 15- and 25-percent continue to suffer seizures. Fortunately there are several experimental drugs now in clinical trials that may treat even the most stubborn seizures, one of which could be available within two years, scientists told a recent international meeting of epilepsy experts in San Diego.

The furthest along the pipeline is called lacosamide. Data from the final phase of a clinical trial in 500 patients from 12 European countries and Australia showed 41 percent of patients taking the drug for one month had 50 percent fewer seizures compared to patients receiving a placebo drug. Lacosamide was well-tolerated and demonstrated little potential for interacting with other medications. Depending on the FDA approval process, the drug could become available later this year or in 2008, the researchers say.

"Being seizure-free is of tremendous importance to patients," says Gregory Barkley, M.D., clinical vice chairman of the department of neurology at Henry Ford Health System in Detroit. "In Michigan, if you have one seizure, you can't drive an automobile for six months. That has a terrific impact on a person's quality of life. That's why reducing the number of seizures—while important to the patient's health—is still far from being seizure-free."

