

Vitamins: D for disease-free

Dreary winters are infamous for inducing depression. But being starved for sunlight can do more than kick you into a psychic hole. A growing body of evidence suggests it can raise your risk of cancer and increase susceptibility to heart attack, diabetes and multiple sclerosis. The reason is vitamin D, an essential nutrient produced in abundance by skin exposed to the sun's rays. Long dismissed as being important mainly for strong bones, the so-called sunshine vitamin is now recognized as a key player throughout the body, including the immune system. Increased use of sunscreen has turned a seasonal shortfall into a year-round condition for many people. A recent survey in Britain found 87 percent of adults tested during winter, and more than 60 percent in summer, had subpar vitamin D levels. Doctors in many parts of the world report a resurgence of childhood rickets, soft bones caused by lack of vitamin D. Supplements offer a cheap and easy solution. But Bruce Hollis, a leading vitamin D researcher at the Medical University of South Carolina, and other researchers argue the recommended intake is too low to provide many health benefits. A Canadian medical organization advises that pregnant and nursing women take 10 times the amount suggested in the U.S. "You're more likely to live longer, and you're less likely to die of serious chronic disease if you have adequate vitamin D on board," said Michael Holick of Boston University School of Medicine. "It may well be the most important nutrient of the decade." When Lisa Hill, 54, went to her doctor complaining of joint pain, she was surprised to get a diagnosis of vitamin D deficiency. "I had never heard of it," she said. Many doctors once scoffed at the notion of vitamin D deficiency, but testing has become more routine and is covered by most insurance. University of Washington heart surgeon Donald Miller Jr. tested 78 of his patients and found three-quarters had "insufficient" levels of vitamin D. "It was really pretty shocking," Miller said. In addition to strengthening bones, muscles and joints, high vitamin D levels have been linked to lower rates of colon, prostate, breast, esophageal and pancreatic cancer. Harvard scientists found that high levels of vitamin D reduced children's odds of developing asthma, while researchers in Pittsburgh reported that pregnant women with low vitamin D had greater risk of pre-eclampsia, a dangerous form of high blood pressure. Formed in skin cells exposed to UVB, the invisible form of light that causes sunburn, vitamin D and its breakdown products act throughout the body. The compounds are believed to regulate as many as 1,000 genes, including genes that weed out precancerous cells and genes that slow the runaway reproduction typical of cancer. Molecular geneticist John White and his colleagues at McGill University in Montreal discovered vitamin D also switches on an arm of the immune system that kills bacteria — including the bug responsible for tuberculosis. "It's a kind of front-line response to infection," he said. <http://www.kansascity.com/238/story/500707.html>