[HEALTH]

Do we need more **B12**?

Low levels of vitamin B12 are being widely discussed as a factor in several serious ailments that commonly afflict older people, including dementia, osteoporosis and cardiovascular disease

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It has long been known that vitamins must be obtained from sources outside the body — food and drink, and for vitamin D, exposure to sunlight — and that failing to get enough of a vitamin can result in well-defined and sometimes deadly diseases.

But in recent decades, epidemiological studies have linked several nutrients, especially vitamins C and E, beta carotene and folic acid, to chronic ills including heart disease and cancer. That led people to take large doses in hopes of warding off dire consequences.

But when scientifically designed clinical trials were conducted, most early promises proved false. Now another vitamin, B12, is being discussed as a factor in several ailments that commonly afflict older people, including heart disease and stroke, Alzheimer's disease and dementia, frailty, depression, osteoporosis and even some cancers.

As with the other vitamins, the evidence for the role that low levels of B12 may play in these problems comes almost entirely from epidemiological studies — those that follow a population of people, in this case measuring their B12 levels to see whether there are correlations with health. For example, a continuing study of 2,576 adults in Framingham, Massachusetts, linked low blood levels of B12 to bone loss in men and women; a study of 703 women in their 70s living at home in Baltimore linked markers of B12 deficiency to frailty; and a study published this year, of 107 community-dwelling people over 60 who were followed for five years, linked low levels of B12 to shrinkage of the brain.

This latest finding has attracted much attention, given the problem of Alzheimer's and the fact that B12 protects the nervous system. Without B12, permanent neurological damage can occur.

In many of the studies, symptoms were seen in people with B12 levels just slightly below normal. In some cases, symptoms were seen in people with B12 levels considerably above the levels that cause the best-known disease of B12 deficiency, anemia. The findings have prompted some experts to question whether blood levels of B12 now considered normal are really optimal.

A COMPLEX NUTRIENT

The studies suggest considerable benefits from the increasing of B12 levels, especially in adults over 50. But these types of studies cannot prove cause and effect. Until placebo-controlled clinical trials are conducted, it is not known whether artificially increasing levels of B12 among people at the low end is safe and beneficial.

Still, a growing number of experts, who cite well-established explanations for drops in B12 levels, especially in older people, are urging everyone over 50 to increase their B12 intake through supplements or fortified foods. These experts believe it cannot hurt and may help to keep people hale and hearty.

Donald Jacobsen, a biochemist at the Cleveland Clinic who has studied B12 for 40 years and is a consultant for a company developing a new B12 supplement, explained that this vitamin is needed by every cell in the body.

Since it is water-soluble and only a small fraction of the amount consumed is absorbed by the body, taking large doses of it appears to be safe, Jacobsen said in an interview.

The only dietary sources are animal products and bacteria: meat, fish, poultry, eggs and milk and nutritional yeast.

Vegans, who consume no animal foods, must take a B12 supplement or eat plant foods fortified with the vitamin. But there are other health factors that lead to a need for supplementation.

The body has a complicated means of acquiring naturally occurring B12. In animal foods the vitamin enters the body attached to protein; to be absorbed, it must first be separated from protein by stomach acid. The vitamin then combines with a substance in the gut called intrinsic factor, which enables it to pass through the small intestine into the bloodstream.

People with low levels of stomach acid or who lack intrinsic factor are at risk of developing a B12 deficiency. Among them are many millions of older people who develop atrophic gastritis, a loss of acid-producing stomach cells, and those who chronically take acid-lowering drugs like Prilosec, Prevacid and Zantac to control reflux. Because the body has a temporary storage system for B12 in the liver, a deficiency may not show up for several years after acid levels fall.

Others who are at serious risk of a B12 deficiency are those who lose major parts of their stomachs or parts of their small intestine, through, for example, surgery for weight loss or ulcers. They must take daily B12 supplements to stay healthy.

But more often it is the elderly — as many as 30 percent over age 65 — who are found to have B12 levels that are less than ideal.

"It's a huge problem," J. David Spence, a neurologist and stroke specialist at the Robarts Research Institute in London, Ontario, said in an interview.

"Close to 80 percent of older adults with a B12 deficiency don't know it," he said. "Neither do their doctors. Doctors tend to think 'normal' means adequate."

Spence said that the low end of normal for B12 — commonly 160 to 250 picomoles per liter of blood serum — was hardly optimal.

That level, he said, could result in a host of chronic ailments, including cardiovascular disorders and damage to the nervous system, which becomes permanent if not caught and treated early. Spence, among others, considers 350 picomoles to be adequate.

Although it was proved long ago that people who lack enough intrinsic factor to absorb B12 can benefit from oral doses of the nutrient, most physicians were taught, and many still think, that it has to be given by injection as often as weekly to prevent life-threatening pernicious anemia.

Godfrey Oakley, a research epidemiologist at Emory University in Atlanta, said pernicious anemia could be cured with oral doses — 1,000 micrograms of B12 a day. For most people 50 and older who still have intrinsic factor but perhaps not enough stomach acid to benefit fully from B12 in animal foods, a daily intake of 5 micrograms or 6 micrograms of synthetic B12 from a supplement or fortified foods, like breakfast cereals with added B12, can correct the deficit, he said in an interview.

DIVERGENT VIEWS

Oakley is a staunch advocate of adding B12 to flour, as is now done with another B vitamin, folate. "If B12 were required in flour, the problem of low stomach acid would essentially disappear," he said. "These people are not particularly sick but may be at increased risk of developing dementia, osteoporosis and cardiovascular disease."

But another longtime researcher in the field, Ralph Carmel, a hematologist and director of research at New York-Methodist Hospital in Brooklyn, cautions against such recommendations. "The associations found in the studies are potentially important, but no one has yet shown that if you give B12 it will make a difference down the road," he said. "We need clinical trials."

Furthermore, he maintains that the small amount of B12 in most supplements will not correct a mild deficiency. "You don't change anything," Carmel said, "until you give 1,000 micrograms a day."

ILLUSTRATION: NY TIMES NEWS SERVICE

[TECHNOLOGY]

How to whip Windows Vista into shape

Microsoft has admitted that users have come to view Vista as too complicated and too obnoxious. There are ways and means, however, of tweaking the system

BY **JAY DOUGHERTY**
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The successor to Windows Vista now has a name: Windows 7.

Although the new operating system is not due to hit store shelves until late next year, Microsoft felt that now was the time not only to unveil the name of the next version of the world's most-used operating system but, more importantly, the rationale for the abandonment of the "aspirational" naming scheme of recent versions of Windows.

In essence, Microsoft has admitted through various sources that users have come to view Vista as too complicated and too obnoxious. Specifically, Microsoft has taken a lot of heat over Vista's User Account Control, which relentlessly prompts users with permission dialog boxes — for everything from installing new applications to accessing certain parts of the operating system itself.

Combine that annoyance with the significant computing power needed to make Vista operate as smoothly as Windows XP, and you have a user base that's been loudly complaining about the direction that Windows has taken. Hence Microsoft's indication, with the Windows 7 name, that the company is listening — and planning to offer a less intrusive, more streamlined Windows.

But if you use Vista now, you don't need to wait over a year to get a Vista-like version of Windows that's leaner, less obnoxious, and indeed even snappier. There are steps you can take whip Vista into shape right now. What you end up with won't exactly be Windows 7, but it will be a whole lot more livable than the Vista you use now.

TAME USER ACCOUNT CONTROL

UAC is the feature of Vista that users love to hate, and with good reason. It's responsible for those dialog boxes that read "An unidentified program wants to access your computer" any time that you try to open a file or run a program that could install itself or change files on your computer. The trouble is that 95 percent of the time, you know exactly what you're doing when this dialog box pops up, and therefore it amounts to just another annoyance on your way to getting something done.

It's possible to disable UAC altogether, but if you do, you'll be removing an important security component from Vista, leaving yourself more vulnerable. Instead, you could turn to a new, free tool from Symantec called Norton UAC Tool (www.nortonlabs.com/inthelab/uac.php), which gives you more control over what types of actions UAC prompts you about.

The Norton UAC Tool adds some important options to the standard UAC dialog box. For example, after installing Norton UAC, if you double-click an "exe" file to install a program, UAC will prompt you as usual, but you'll also have the option to disable that type of prompt in the future by clicking a "Don't ask me again" check box.

Norton UAC also provides more information than the standard UCA about what's about to happen as a result of an action you just took. For instance, a UAC prompt that opens after you click some Control Panel applets lets you know that actions you perform might make changes to a protected directory. Again, the Norton UAC offers you the option to disable such prompts in the future.

TONE DOWN AERO

Aero — the Vista interface feature that enables semi-transparent windows — is pretty, but it's also a major resource hog. It's so demanding, in fact, that the edition of Vista called Windows Vista Basic, which is designed to run on less powerful machines, doesn't even include it.

Even if your copy of Vista does, you might want to disable it in order to regain some performance. To do so, right-click a blank area of your desktop, and select Personalize from the pop-up menu. Then click Windows Color and Appearance. From the resulting Appearance Settings dialog box, select Windows Vista Basic from the "Color scheme" list box, and click OK. You'll still have the look and feel of Vista. But without the Aero transparency effects, your PC will seem more responsive.

You can get another performance bump by disabling some other interface niceties that aren't necessarily tied to Vista. To do so, open the Vista Start menu, right-click the word Computer, and then select Properties from the pop-up menu. From the resulting System dialog box, click

Sixteen aerialists perform as a live Human billboard on Jan. 29 2007, to advertise the release of Microsoft's Windows Vista.
PHOTO: EPA

Advanced System Setting from the left-hand pane. The Performance Options dialog opens. From there, deselect those interface options — such as "fade or slide menus into view" — that you can live without. Or simply click the option button labeled "Adjust for best performance," and click OK.

TURN OFF UNNEEDED FEATURES

You'd be amazed at the number of optional features that Vista starts up by default, slowing down your computer in the process. Some of these features you likely will never need or use.

For instance, do you ever print documents over the Internet? Vista thinks you may want to, so it loads an Internet printing feature. Or do you ever use Windows Meeting Space? If you're not even sure what it is, you probably don't use it. But Vista loads drivers for it every time the operating system starts.

To get rid of the Internet printing feature, open Vista's Control Panel and click Programs and Features. Then click the "Turn features on or off" link in the left-hand pane. The Windows Features dialog box opens. Expand the Print Services section, and remove the check mark from the Internet Printing Client check box. Disable the Windows Meeting Space service in the same way.

And while you're in the Windows Features dialog box, spend some time looking at the other features that are enabled. Anything with a check mark next to it is. Not using games? Remove the check mark next to Games. Click OK when you're done, and Windows will spend some time deactivating the features you have de-selected.

DISABLE SERVICES YOU DON'T NEED

Vista comes with a host of system-level services — enhancements tied closely to the operating system — that few people ever use. Yet the existence of these services means that resources are being wasted — and your computer is being slowed.

ReadyBoost, for example, is a service that allows you to use a USB flash drive to give Vista more memory, thereby helping the operating system to do more — theoretically. In practice, few people seem to notice much difference when a flash drive is inserted, and even fewer seem to use ReadyBoost.

Disable it by clicking Start, typing "services," without the quotation marks, and pressing Enter. In the resulting Services dialog box, find ReadyBoost, and double-click the entry. From the "startup type" drop-down menu, select Disabled, and click OK.

Indexing, too, is a service that is resource-intensive and may either be foregone entirely or replaced by a less resource-intensive indexing application, such as Google Desktop or Copernic Desktop.

To turn off indexing, remain in the Services dialog box, and locate the Windows Search entry. Double-click it. From the "startup type" drop-down list box, select Disabled. Click OK, and you're done.

Undoubtedly Windows 7 will amount to a lot more than simply the disabling of features, services, and interface elements. But if Microsoft has absorbed anything from the feedback it has received about Windows Vista, it's that users want less, not more, when it comes to things that get in the way of productivity. Take the steps outlined here to make Vista less intrusive, and you're likely to be a good bit closer to what Microsoft hopes to give you in Windows 7.