

Spin the Bottle

HOW TO PICK A MULTIVITAMIN

You don't need a fancy multi. Some of our Best Bites are inexpensive private-label brands that are sold at stores like Eckerd, Kmart, Kroger, Rite Aid, Safeway, Sav-on, Walgreens, and Wal-Mart. Or you can walk into just about any pharmacy and pick up a bottle of Theragran-M (or one of its clones).

So why do you need our chart (see p. 5)? Because multis haven't adjusted their ingredients to keep up with the latest recommendations from the National Academy of Sciences (NAS). And even the Academy's advice—which is up to five years old for some nutrients—may be out of date.

For example, recent studies suggest that high doses of vitamin A may raise the risk of hip fracture and that the latest recommended levels of vitamin K may be too low to protect your bones. And a high dose of vitamin E may make colds worse.

What's more, labels can mislead shoppers. For example, a bottle may say that a multi has 100 percent of the Daily Value for vitamins A, C, and K. What it *doesn't* say is that the government hasn't changed the Daily Values since the mid-1970s. Experts now recommend more C and K, so 100 percent of the Daily Value is *less* than a day's worth. And experts recommend less vitamin A, so 100 percent of the Daily Value is *more* than a day's worth.

To simplify your search for the perfect multi, we've evaluated dozens of brands to find our Best Bites, using different criteria for men and pre- and postmenopausal women. Here's how we separated the best from the rest. You can follow the same steps if you want to check out brands that aren't in our chart.

1 Look for 100 percent of eight vitamins

A multi is supposed to supplement, not replace, your diet. But it's easier to look for a multi that has a full day's worth of each vitamin and mineral than to try to guess how much you're not getting from your food.

Our Best Bites have at least 100 percent of the Daily Value for thiamin (B-1), riboflavin (B-2), niacin (B-3), vitamins B-6, B-12, D, E, and folic acid. They also have at least 90 mg of vitamin C, which is the new recommended level for men (it's 75 mg for women). That's more than the current Daily Value (60 mg).

2 Limit vitamin A

According to a 2002 Harvard Medical School study of 72,000 women, those who consumed between 4,300 international units (IU) and 6,600 IU a day of vitamin A had a 43 percent higher risk of hip fracture than those who consumed 1,700 IU or less. The risk was greater in women who got even more than 6,600 IU. Only one kind of vitamin A, retinol, was linked to weaker bones. It's found in animal foods (dairy, liver, eggs, etc.). Beta-carotene, which the body converts to vitamin A, is found in fruits and vegetables. It doesn't increase the risk of hip fractures. The vitamin A in supplements can come from retinol (often called vitamin A palmitate or acetate), from

beta-carotene, or from a combination of the two. (Check the label. Some simply list vitamin A, which isn't very useful. But many brands also disclose what percentage of their vitamin A comes from beta-carotene. If so, the rest is retinol.)

To protect bones, we limited our Best Bites to no more than 4,000 IU of retinol. But even less would be better, since people also get some vitamin A from their food. Our limit is especially important for women (so far, no studies have been done on men's bones and vitamin A).

Roche Vitamins, a major manufacturer of vitamin A, says that many of the vitamin-makers it supplies have agreed to lower their retinol levels to 2,500 IU. That may make the numbers in our chart outdated by the time you read this, so check your labels.

Some brands have far too much retinol. KAL, Puritan's Pride, Solaray, and Twinlab each sell at least one multi with 10,000 IU. And Now's Vit-Min 75+ has 15,000 IU. That exceeds the National Academy's 10,000 IU "upper level" (UL) for retinol, which is the highest safe intake. The UL is based on evidence that more vitamin A may cause liver abnormalities and, if consumed by women of childbearing age, birth defects.

Beta-carotene doesn't cause those problems. But we set a limit of 15,000 IU for our Best Bites because too much beta-carotene may increase the risk of lung cancer in smokers. (Beta-carotene from foods is safe.)



3

Look for vitamin K

In 2001, the National Academy boosted the recommended intake of vitamin K from 80 micrograms (mcg) a day to 90 mcg for women and to 120 mcg for men. Yet only a handful of multivitamins have even 80 mcg.

Manufacturers have been skittish about adding much vitamin K because it can interfere with popular blood-thinning drugs like coumadin. But it's safe for others. In fact, recent studies suggest that people may need 150 to 250 mcg a day to prevent hip fractures.

Our Best Bites have at least 20 mcg of vitamin K. (Our chart lists vitamin K, so you can find brands that have more.) To make sure you're getting enough, load up on leafy greens like spinach, kale, broccoli, Brussels sprouts, and romaine lettuce (see July/August 2002, p. 13). Some calcium supplements also have vitamin K. (Viactiv, for example, has 40 mcg per chew.) If you're taking blood-thinners, talk to your doctor about how much vitamin K to get from your food and supplements.

4

Get a minimum of minerals

Our Best Bites have less than 100 percent of the Daily Value for most minerals, but for different reasons:

■ **For chromium, copper, selenium, and zinc:** We required less than the Daily Values because the latest recommendations are lower than the outdated DVs. The National Academy cut copper from 2 mg to 0.9 mg (900 mcg), selenium from 70 mcg to 55 mcg, and zinc from 15 mg to 11 mg (and to 8 mg for women). Chromium dropped from 120 mcg to a range of 20 mcg to 35 mcg, depending on your age and gender.

■ **For calcium and magnesium:** Our Best Bites have less than the Daily Values because the recommended levels are too large to fit in a single pill. We set no minimum for calcium,

because to get the recommended amount (1,000 mg to 1,200 mg a day), most people would probably need a separate supplement anyway. (You might be able to get a day's worth in a four-pills-or-more-a-day multi, but you'll probably pay more than you would by buying calcium and magnesium separately.)

We required at least 100 mg of magnesium, which can give you a boost towards the recommended levels for women (320 mg) or men (420 mg). You might not want those higher levels in your multi anyway. Getting more than 350 mg from a supplement or fortified food may cause diarrhea. Better to get more magnesium from whole-grain breads and cereals.

5

Avoid excesses

Our Best Bites had no more than 4,000 IU of retinol (more may increase the risk of hip fractures in women), 15,000 IU of beta-carotene (more may increase the risk of lung cancer in smokers), 100 mg of vitamin B-6 (more may cause reversible nerve damage), 350 mg of magnesium (more may cause diarrhea), and 250 mg of phosphorus (we already

get too much from our food).

For iron, there is no amount that's right for everyone. Our Best Bites for women have 18 mg, because women under 50 need that much to replace menstrual losses. But Best Bites for men and postmenopausal women have no more than nine milligrams of iron, to lower the risk of iron overload and possibly (the evidence is shaky) heart disease and cancer.

We set no limit on vitamin E for Best Bites. But in a new study, women with heart disease who were given 800 IU of vitamin E (and 1,000 mg of vitamin C) every day for one year were more likely to die than similar women who got a placebo (see page 12).

And in another study, healthy older people who were given 440 IU of vitamin E a day had more severe colds than people who took a placebo or a multi with only 22 IU of vitamin E. (Last November, we mistakenly reported that the volunteers were given 220 IU and the multi contained 10 IU.)

The new recommended level is 33 IU. One or two studies aren't enough to make or break a Best Bite, but knowing how much vitamin E is in your multi may be useful information. Our chart shows which multivitamins have 200 IU or less.

The information for this article was compiled by Tamar Genger.

Look for Knock-Offs

Centrum, Central-Vite, Sentury-Vite. It's no coincidence that those names sound alike. Stores like Wal-Mart, Kmart, and major supermarket and pharmacy chains sell multivitamins that are formulated to match Centrum, One A Day, Theragran, and other top brands. You can simplify your vitamin search (and maybe save some dough) by looking for these "knock-offs." Here are some we found (check the label to make sure that the knock-off matches the brand it's imitating):

■ **Centrum.** Centrum missed our Best Bite cutoff because it's got only 20 mcg of selenium and 60 mg of vitamin C. Its knock-offs include Central-Vite, Century, Sentury-Vite, and some alphabet names (A to Z, ABC, Alphabet, etc.). Central-Vite Select, Century Senior, and ABC Plus Senior are a few Centrum Silver knock-offs.

■ **One A Day.** One A Day 50 Plus is a Best Bite for men and postmenopausal women. All the knock-offs we found have "One Daily 50+" or "Daily Multiple 50 Plus" in their names.

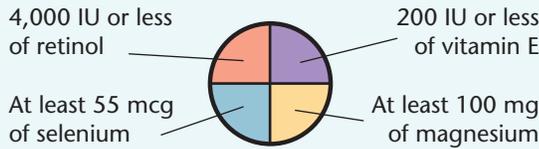
■ **Theragran-M.** Knock-offs of this Best Bite include Therapeutic M and Thera Plus.

Dividing the Multiples

Every multivitamin-mineral in this chart has at least 100 percent of the Daily Value for vitamins B-1 (thiamin), B-2 (riboflavin), B-3 (niacin), B-6, B-12, D, E, and folic acid. Each also has *no more than* 15,000 IU of beta-carotene, 18 mg of iron, 350 mg of magnesium, 250 mg of phosphorus, and 100 mg of vitamin B-6.

To be a Best Bite, the multi also has to contain no more than 4,000 IU of retinol (vitamin A acetate or palmitate) and at least 90 mg of vitamin C, 20 mcg of vitamin K, 35 mcg of chromium, 0.9 mg of copper, 100 mg of magnesium, 55 mcg of selenium, and 11 mg of zinc. Our circles show which multis have appropriate levels of retinol (vitamin A), vitamin E, magnesium, and selenium.

If a section is shaded, the multi has:



In addition, Best Bites for premenopausal women (**W**) have 18 mg of iron, while Best Bites for postmenopausal women (**W+**) and men (**M**) have no more than 9 mg of iron.

Multivitamins are listed in alphabetical order. The number of pills or capsules the label says to take every day is in parentheses following each multi's name. The last column gives a rough estimate of price: \$ (less than \$5 for a month's supply), \$\$ (\$5 to \$10 a month), \$\$\$ (\$11 to 15 a month), or \$\$\$\$ (more than \$15 a month).

Multivitamin (number per day)

AARP Alphabet II (1)	10	0	\$
AARP Alphabet (1)	25	18	\$
AARP Maturity (1)	0	15	\$
AARP Multivitamins with Minerals (1)	28	18	\$
AARP U.S. RDA Formula with Iron (1)*	0	18	\$
Central-Vite (1)#	25	18	\$
Central-Vite Performance (1)#	25	18	\$
Central Vite Select (1)#	10	0	\$
Centrum or Centrum Chewables (1)	25	18	\$
Centrum Performance (1)	25	18	\$
Centrum Silver (1)	10	0	\$
M,W+ CVS Daily Multiple 50 Plus (1)	20	0	\$

CVS Daily Multiple Plus Minerals (1)	25	18	\$
M,W+ Eckerd Therapeutic M (1)	28	9	\$
M,W+ Eckerd Vitab (1)	80	9	\$
M,W+ Eckerd Vitamin A Day 50+ (1)	20	0	\$
Geritol Complete (1)	30	16	\$
GNC Platinum Years (2)	10	10	\$\$
GNC Preventron (4)	25	18	\$\$\$
GNC Solotron (1)*	25	18	\$\$
GNC Ultra Mega (1)	0	18	\$\$
GNC Ultra Mega Gold (2)*	0	10	\$\$
Healthy Ideas Century (1)	25	18	\$
Healthy Ideas Century Senior (1)	10	0	\$
M,W+ Healthy Ideas Therapeutic M (1)	28	9	\$
KAL Enhanced-75 (1)	0	1.2	\$\$
KAL High Potency Soft Multiple (2)*	0	15	\$\$\$\$
KAL Multiple Energy (4)	50	18	\$\$\$\$
KAL Vitality for Women (2)	0	18	\$\$\$\$
Kirkland Signature Daily (1)	25	18	\$
Kirkland Signature Mature Adult Daily (1)	10	0	\$
W Kroger Complete Extra (1)	80	18	\$
Kroger One Daily Maximum (1)	25	18	\$
M,W+ Kroger Thera Plus (1)	28	9	\$
Longs One Daily Men's (1)	0	0	\$
W Natrol My Favorite Multiple Complete Care (3)	40	18	\$\$
Natrol My Favorite Multiple Energizer (1)	40	18	\$\$
Natrol My Favorite Multiple Take One (1)*	0	18	\$\$
Nature's Bounty Mega Vita Gel (2)	0	15	\$\$
Nature's Bounty Mega VM-80 (1)	0	2	\$\$
Nature's Bounty Women's Exclusive (1)	0	15	\$\$
Nature's Way Alive! (3)*	80	18	\$\$\$\$
Nature's Way Completia Healthy Heart (1)*	0	10	\$\$
Nature's Way Completia Ultra Energy (1)*	0	1.3	\$\$
Nature Made Essential Man (1)	25	0	\$
Nature Made Essential Man 50+ (1)	10	0	\$
Nature Made Essential MEGA (1)	40	9	\$\$
Nature Made Essential Woman (1)	100	18	\$
Nature Made Essential Woman 50+ (1)	50	0	\$
Now Daily Vits (1)	0	9	\$



C O V E R S T O R Y

					
		Vitamin K (mcg)	Iron (mg)	Price	
W	Now Eve (3)		80	18	\$\$\$
	Now Vit-Min 75+ (1)		0	0	\$
	Now Vit-Min 100 (1)		0	10	\$\$
M,W+	Nutrilite Daily (1)		80	6	\$\$
	Nutrilite Daily Free (1)		0	0	\$\$
M,W+	One A Day 50 Plus (1)		20	0	\$
	One A Day Active (1)		25	9	\$
	One A Day Maximum (1)		25	18	\$
	One Source 50 Plus (1)		10	0	\$
	One Source Adult High Potency (1)		25	18	\$
	One Source Men's (2)		25	0	\$
	One Source Pure Performance (1)		25	18	\$
	Puritan's Pride Mega Vita-Min (1)		0	2	\$
	Puritan's Pride Mega Vita-Min for Women (2)		0	15	\$\$
	Puritan's Pride Multi-Day Plus Minerals (1)		0	18	\$
	Puritan's Pride One Long Acting (1)		0	10	\$
	Puritan's Pride Super VM (1)		0	10	\$
	Puritan's Pride Women's Exclusive (2)		0	15	\$
W	Rite Aid Whole Source (1)		80	18	\$
	Rite Aid Whole Source Mature Adult (1)		80	3.6	\$
	Safeway One Tablet Daily Plus Minerals (1)		25	18	\$
M,W+	Safeway Thera Plus (1)		28	9	\$
W	Sav-on One Choice (1)		80	18	\$
	Sav-on One Daily (1)		25	18	\$
M,W+	Sav-on Therapeutic M (1)		28	9	\$
	Schiff Double Day (2)		0	18	\$\$
	Schiff Single Day (1)		0	9	\$\$
	Schiff Single Day Antioxidant Rich (1)		0	9	\$\$
	Schiff Sustained Release Single Day (1)		0	9	\$\$
	Shaklee Vita-Lea (2)*		80	18	\$\$\$
	Solaray Men's Golden (3)		0	0	\$\$\$
	Solaray Once Daily High Energy (1)*		0	1.8	\$\$
	Solaray Spectro 3 (3)*		50	18	\$\$\$\$
	Solaray Twice Daily Multi Energy (2)*		0	18	\$\$\$
	Solaray Women's Golden (3)		0	0	\$\$\$
	Solgar Earth Source Multi-Nutrient (3)		0	18	\$\$\$\$
	Solgar Formula VM-75 (1)*		0	1.3	\$\$
	Solgar Formula VM-PRIME for Adults 50+ (2)		0	0	\$\$

					
		Vitamin K (mcg)	Iron (mg)	Price	
	Solgar Multi II Vegicaps (2)		0	1	\$\$
	Spring Valley Maximum One Daily (1)		25	18	\$
M,W+	Spring Valley One Daily 50+ (1)		20	0	\$
	Spring Valley One Daily with Minerals (1)		25	18	\$
	Sundown Complete 50+ (1)		10	0	\$
	Sundown Complete Energy (1)		25	18	\$\$\$\$
W	Sundown Complete Multi Daily (1)		25	18	\$
	Sundown Complete Ultra (1)		40	9	\$\$\$\$
	Sundown SunVites (1)		25	18	\$
M,W+	Theragan-M Advanced (1)		28	9	\$
	Twinlab Daily One Caps (1)*		0	10	\$\$\$
	Twinlab Mega 3 Caps (3)		0	10	\$\$\$\$
	Vita Smart Multi-Vitamins Maximum (1)		25	18	\$
	Vita Smart Multi-Vitamins Men's (1)		0	0	\$
M,W+	Vita Smart Therapeutic M Advanced (1)		28	9	\$
	Vitamin Shoppe Daily 3 Complete (3)		30	10	\$\$\$
	Vitamin Shoppe Daily VM Caps (1)		0	10	\$
	Vitamin Shoppe Especially for Men (2)		75	0	\$\$
	Vitamin Shoppe Formula for 50 Plus (3)		0	0	\$\$\$\$
	Vitamin Shoppe From the Earth (3)*		0	18	\$\$\$
	Vitamin Shoppe One Daily (1)*		25	18	\$
	Vitamin World Green Source (3)*		0	15	\$\$\$\$
	Vitamin World Mega Vita Gel (2)		0	15	\$\$\$
	Vitamin World Mega Vita-Min (1)		0	2	\$\$
	Vitamin World Mega Vita Min for Women (2)		0	15	\$\$
M,W+	Walgreens Gold Seal One Daily 50+ (1)		20	0	\$
	Walgreens Gold Seal One Daily Men's (1)		0	0	\$
	Walgreens Ultra Choice Premium Women's (2)		75	0	\$\$\$
M,W+	Your Life One Daily 50+ (1)		20	0	\$
M,W+	Your Life Super Multi with Herbs (1)		80	9	\$

W Best Bite for premenopausal women. **M** Best Bite for men.
W+ Best Bite for postmenopausal women.

*Also available with no iron. #These generic equivalents of Centrum formulas (Central-Vite Select mimics Centrum Silver) are available under the Eckerd, Kroger, Longs, Rite Aid, Safeway Select, Sav-on, and other brand names.

The use of information from this article for commercial purposes is strictly prohibited without written permission from CSPI.

Source: Manufacturers.

The Multi-Mega-Vita-Sell

Most multivitamin bottles aren't covered with as many claims as this pretend label. But since the Food and Drug Administration (FDA) doesn't regulate most claims, supplement-makers are free to say whatever they want. Here we explain which claims matter and which are just fluff.

MEN'S FORMULA. Men need a multi with no more than 8 or 9 mg of iron. Studies are testing whether selenium (200 mcg), vitamin E (400 IU), and lycopene (15 mg) can reduce prostate cancer risk. That's more of each than a typical men's multi has.

HIGH POTENCY. To the FDA, a multi can call itself "High Potency" if at least two-thirds of its nutrients have at least 100 percent of the Daily Value (DV). To most people, "High Potency" means *more* than the DVs. "Advanced," "Complete," or "Maximum" formulas can mean anything.

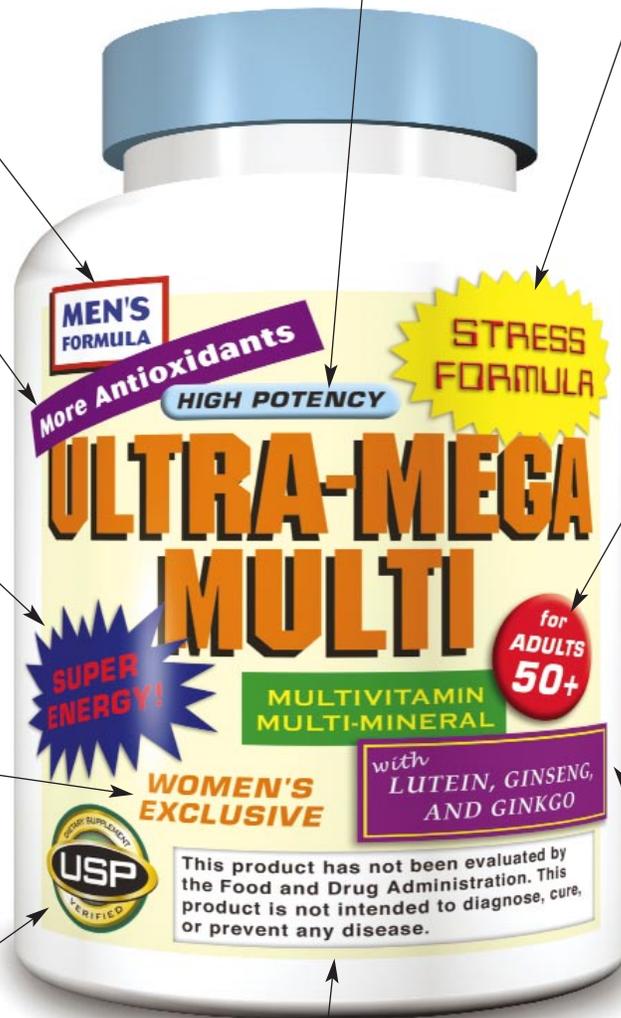
STRESS FORMULA. There's no good evidence that the extra B-vitamins and vitamin C in "stress" formulas reduce stress or repair the damage it causes. What's more, these supplements often lack minerals.

ANTIOXIDANTS. In the studies done so far, vitamins C and E and beta-carotene didn't lower the risk of cancer or heart disease.

SENIORS. "Mature," "50+," or "Select" formulas often have less iron (good) and less vitamin K (not good). Unless you're taking blood-thinners like coumadin, your multi should have vitamin K, to reduce the risk of hip fractures.

ENERGY. Extra B-vitamins or vitamin C or E doesn't make you more energetic.

WOMEN'S FORMULA. Premenopausal women need a multi with 18 mg of iron. Postmenopausal women need no more than 8 or 9 mg. Iron is the only distinction between women's and other formulas that matters.



LUTEIN. Even if lutein does help prevent cataracts, the 250 mcg in a typical multi wouldn't help much. In one study, people who ate 14,000 mcg of lutein a day (largely from green vegetables) had fewer cataracts than people who ate 2,000 mcg a day.

GINSENG. In the best studies, ginseng doesn't boost energy. And a typical multi has less ginseng (25 mg) than most studies use (at least 200 mg).

GINKGO. It's unclear whether large doses of ginkgo (180 mg to 360 mg) can sharpen the mind. But there's no evidence that the small amounts (25 mg to 60 mg) in a typical multi do.

DISCLAIMER. The FDA requires this disclaimer when the supplement makes a so-called "structure-or-function" claim, which may mislead consumers by implying that a vitamin prevents disease. For example, a claim like "vitamin E maintains heart health" implies that E reduces the risk of heart disease. Wrong.

USP. The United States Pharmacopeia (USP) tests supplements if manufacturers pay fees to cover the testing. This mark means that the listed ingredients are in the supplement and will dissolve or disintegrate, not that the supplement is safe or has any benefits.



How to Read c

The label of this made-up multi lists the latest advice from the National Academy of Sciences (NAS) next to the name of each nutrient. (Recommendations vary slightly by age and gender. In most cases, we picked the highest level recommended for adults, excluding pregnant and breastfeeding women.) Like real labels, this

VITAMIN A. The old DV (5,000 IU) is outdated. You need only 3,000 IU of vitamin A. Too much retinol (listed on labels as vitamin A palmitate or acetate) may increase the risk of hip fractures, liver abnormalities, and birth defects. Beta-carotene, which the body converts to vitamin A, doesn't cause those problems, but very high doses (33,000 to 50,000 IU a day) may increase the risk of lung cancer in smokers. Our advice: Don't get more than 2,500 IU of retinol or 15,000 IU of beta-carotene from your multi. Instead, load up on beta-carotene-rich fruits and vegetables like carrots, cantaloupe, sweet potatoes, and broccoli, which may help prevent cancer.

VITAMIN D. It helps you absorb calcium. Yet many people over 50 get too little D from sunshine, especially in the winter, or from their food—the major sources are milk, fatty fish like salmon, and fortified cereals. The NAS recommends 200 IU a day for adults 50 and under, 400 IU for people aged 51 to 70, and 600 IU for anyone over 70. But those amounts include what you get from the sun and food. Look for a multi with 400 IU (the DV).

THIAMIN (B-1), RIBOFLAVIN (B-2), NIACIN (B-3), and B-6. While there's no reason to get more than the Daily Value for these B-vitamins, the high doses found in some multis are harmless. But that doesn't mean the sky's the limit. More than 100 mg a day of B-6 can cause (reversible) neurological damage. *Super-high* doses of niacin (3,000 mg a day or more) may cause liver damage.

VITAMIN B-12. People older than 50 may lack the stomach acid needed to extract B-12 from food, so they should get at least 2.4 mcg a day from a supplement or fortified food like breakfast cereal. Vegans (who eat no meat or dairy) also need to take B-12. Most multivitamins have at least 6 mcg (the DV). A B-12 deficiency can cause irreversible nerve damage and may masquerade as Alzheimer's disease.

IRON. Many children and premenopausal women are deficient, but too much can cause iron overload (hemochromatosis) in susceptible people. To play it safe, men and postmenopausal women should look for zero to 8 mg of iron in a multi. (The 9 mg in many brands is close enough.) The Daily Value (18 mg) is okay for premenopausal women.

MAGNESIUM. Americans get too little from foods (among the best sources: whole grains and beans). A deficiency may increase the risk of diabetes. Look for a multi with at least 100 mg, just for insurance. The NAS recommends 320 mg (for women) and 420 mg (for men). More than 350 mg a day from a supplement (not food) may cause diarrhea.

SELENIUM. Many leading brands (like Centrum) have considerably less than the DV (70 mcg) or the latest recommended level (55 mcg). A large study is under way to see if a high dose (200 mcg a day) can lower the risk of prostate cancer. Taking more than 800 mcg a day of selenium can make your nails or hair brittle (or fall out), so the NAS set the highest safe level at 400 mcg.

IODINE, MANGANESE, BORON, MOLYBDENUM, and CHLORIDE. Ignore. There's no evidence that people need more than what they get from their food.

POTASSIUM. Ignore. Amounts in multivitamins are trivial. The NAS hasn't yet set a recommended level, but the Daily Value is 3,500 mg a day. Instead, eat plenty of fruits and vegetables, which are potassium-rich, to help keep your blood pressure down.

EXPIRATION DATE. Make sure that it's at least a few months away.

