OVEMBER 2016 \$2.50

Quinoa Stuffed Peppers, p. 11

Nutrition Action

Milk from peas, back cover

CENTER FOR SCIENCE IN THE PUBLIC INTEREST

Multivitamins: insurance... or waste of money?

> **RIGGED!** Supermarket shelves for sale

Cereal: Looking beyond the **hype**

Weight & Cancer



Include CSPI in Your Will

It costs nothing during your lifetime and helps set the table for safe food and good health for future generations.

By including a gift to the <u>Center for Science in the</u> <u>Public Interest</u> in your esta te plans, you support both *Nutrition Action Healthletter* and CSPI's advocacy programs. You can designate a fixed percentage of your estate, a fixed amount, or a residual amount after all of your heirs have been provided for.

If you have already named CSPI in your will, we encourage you to share that information with us. Doing so entitles you to recognition as a Benefactor for *Nutrition Action*, a lifetime subscription to *Nutrition Action Healthletter*, and invitations to special events in your area.

For more information: <u>cspinet.org/giving</u> or e-mail Jane Welna at <u>giftplan@cspinet.org</u>.

STATEMENT OF OWNERSHIP, MANAGEMENT, AND CIRCULATION (All Periodicals Publications Except Requester Publications) 1. Publication Title: Nutrition Action Healthletter. 2. Publications) 1. Publication Title: Nutrition Action Healthletter. 2. Publication Number: 0007-704. 3. Filing Date: September 25, 2016. 4. Issue Frequency: Monthly except for combined issues in Jan-Feb and July-Aug. 5. Number of Issues Published Annually: 10. 6. Annual Subscription Price: USS24.00. 7. Complete Mailing Address of Known Office of Publication (not printer): 1220 L St., N.W., Suite 300, Washington, D.C. 20005-4053. Contact Person: Brian McMeley. Telephone 202-332-9110. 8. Complete Mailing Address of Headquarters or General Business Office of the Publisher (not printer): Same as #7. 9. Full Names and Complete Mailing Addresses of Publisher, Editor, and Managing Editor: Publisher: Michael F. Jacobson, same address as #7. 10. Owner: Full Name: Center for Science in the Public Interest, Inc., a nonprofit corporation. Complete Mailing Address: Same as #7. 11. Known Bondholders, Mortgagees, and Other Security Holders Owning or Holding I Percent or More of Total Amount of Bonds, Mortgages or Other Securities. If none, check box: None. 12. Tax Status (For completion by nonprofit organizations authorized to mail at nonprofit rates): The purpose, function, and nonprofit status of this organization and the exempt status for federal income tax purposes has not changed during the preceding 12 months, 13. Publication Title: Nutrition Action Healthletter. 14. Issue Date for Circulation: 15.a. Total Number of Copies (net press run): Average no. copies each issue during preceding 12 months, 649,549; No. copies of single issue published nearest to filing date, 591,452. 15b. Paid Circulation By Mail and Outside the Mail): 15b. 1. Mailed Outside-County Paid Subscriptions Stated on PS Form 3541 (Include Paid distribution above nominal rate, advertiser's proof copies, and exchange copies): Average no. copies each issue during preceding 12 months, 549,549 15.b.2. Mailed In-County Paid Subscriptions Stated on PS Form 3541 (Include Paid distribution above nominal rate, advertiser's proof copies, and exchange copies): Average no. copies each issue during preceding 12 months, 0; No. copies of single issue published nearest to filing date, 0. 15.b.3. Paid Distribution Outside the Mails Including Sales Through Dealers and Carriers, Street Vendors, Counter Sales, and Other Paid Distribution Outside USPS: Average no. copies each issue during preceding 12 months, 867; No. copies of single issue published nearest to filing date, 800, 15.b.4. Paid Distribution by Other Classes of Mail Through the USPS (e.g. First-Class Mail): Average no. copies each issue during preceding 12 months, 1,834; No. copies of single issue published nearest to filing date, 1,903 15.c. Total Paid Distribution (sum of 15.b(1), (2), (3), and (4)): Average no. copies each issue during preceding 12 months, 588,767; No. copies of single issue published nearest to filing date, 557,464 15.d. Free or Nominal Rate Distribution (By Mail and Outside the Mail): 15.d.1. Free or Nominal Rate Outside-county Copies included on PS form 3541: Average no. copies each issue during preceding 12 months, 25,362; No. copies of single issue published nearest to filing date, 20,898, 15.d.2. Free or Nominal Rate In-County Copies Included on PS Form 3541: Average no. copies each issue during preceding 12 months, 0; No. copies of single issue published nearest to filing date, 20,789, 15.d.2. Free or Nominal Rate Copies Mailed at Other Classes Through the USPS (e.g. First-Class Mail): Average no. copies each issue during preceding 12 months, 0; No. copies of single issue published nearest to filing date, 0. 15.d. Free or Nominal Rate Copies Mailed at Other Classes Through the USPS (e.g. First-Class Mail): Average no. copies each issue during preceding 12 months, 0; No. copies of single issue published nearest to filing date, 0. 15.d. Free or Nominal Rate Distribution (sum of 15.d(1), (2), (3), and (4)): Average no. copies ea

each issue during preceding 12 months, *614,130*; No. copies of single issue published nearest to filing date, *578,362*. 15.g. Copies not Distributed: Average no. copies each issue during preceding 12 months, *35,419*; No. copies of single issue published nearest to filing date, *13,490*. 15.h. Total (sum of 15.f. and 15.g.): Average no. copies each issue during preceding 12 months, *649,549*; No. copies of single issue published nearest to filing date, *591,852*. 15.i. Pcrent Paid (15.c. divided by 15.f. times 100): Average no. copies each issue during preceding 12 months, *649,549*; No. copies of single issue published nearest to filing date, *644%*. 16. Electronic Copy Circulation: 16.a. Paid Electronic Copies: Average no. copies each issue during preceding 12 months, *59,9%*; No. copies of single issue published nearest to filing date, *646,4%*. 16. Electronic Copy Circulation: 16.a. Paid Electronic Copies: Average no. copies each issue during preceding 12 months, *59,39,78*; No. copies of single issue published nearest to filing date, *566,524*. 16.c. Total (sum of Print Distribution (15.f) and Paid Electronic copies (16.a)): Average no. copies each issue during preceding 12 months, *649,549*. No. copies of single issue published nearest to filing date, *566,524*. 16.c. Total (sum of Print Distribution (15.f) and Paid Electronic copies) (16.b. divided by 16.c. times 100): Average no. copies each issue during preceding 12 months, *646,524*. 16.c. Total (sum of Print Distribution (15.f) and Paid Electronic copies) (16.b. divided by 16.c. times 100): are paid above a nominal price. 17. Publication of Statement of Ownership. If the published nearest to filing date, *96%*. 1 certify that 30% of all my distributed copies (electronic and print) are paid above a nominal price. 17. Publication of Statement is required. Will be printed in the *November 2016* issue of this publication. 18. 1 certify that all information furnished on this form is true and complete. I understand that anyone who furnishes false or misl

Nutrition Action Healthletter (ISSN 0885-7792) is published 10 times a year (monthly except bi-monthly in Jan./Feb. and Jul./Aug.).

POSTMASTER: Send changes to *Nutrition Action Healthletter*, 1220 L St., N.W., Suite 300, Washington, DC 20005-4053. Application to mail at Periodical postage rates approved at post office of Washington, DC, and at additional offices.

 $\mbox{GUARANTEE!}$ We'll give you 2 FREE ISSUES of Nutrition Action if there's ever a problem with your subscription.

Subscriber Services

The cost for a one-year subscription or gift (10 issues) is \$24; two years are \$42. IF For bulk subscriptions, please write for details. To change your address, send us your subscriber number and your old and new address. If you don't want us to exchange your name, send us your name and mailing-label information. Mail: CSPI, 1220 L St, N.W., Suite 300, Washington, DC 20005. Tet: (202) 777-8393

E-mail: <u>circ@cspinet.org</u>. ■ Internet: <u>www.cspinet.org</u>. Expiration date is in the upper center of your mailing label. Your subscriber number precedes the expiration date. The use of information from Nutrition Action Healthletter for commercial purposes is prohibited without written permission from CSPI.

For permission to reuse material, go to <u>copyright.com</u> and search for Nutrition Action.

The contents of NAH are not intended to provide medical advice, which should be obtained from a qualified health professional. © 2016 by Center for Science in the Public Interest.

Photo: ©katrinshine/fotolia.

COVER STORY

MULTI-TASKING Multivitamins: insurance...or waste of money?

BY DAVID SCHARDT

"Enough is enough: Stop wasting money on vitamin and mineral supplements," <u>wrote</u> Johns Hopkins University researchers in the *Annals of Internal Medicine* in 2013. Worse yet, could multivitamins cause harm?

Not so fast, countered the Cleveland Clinic, which <u>calls</u> multivitamins "insurance against an imperfect diet." Who's right?

hen Paul runs out of his multi, "I immediately feel the difference in my body, I feel more fatigued and less alert," he commented on amazon.com.

Patricia's doctor said that multivitamins "are a total waste of money," she told fellow Amazon customers. "Trash can—here they come!"

Richard's advice: "The more expensive the multi is, the better the product."

Everyone's an expert when it comes to vitamins. So we talked to an actual expert.

"Multivitamins can provide a safety net for people who are eating reasonably well but might not be sure they're getting all the recommended levels of the essential vitamins and minerals," says Howard Sesso, who helped run the Physicians' Health Study II, the longest, largest clinical trial of multivitamins in men. For example, many Americans get too little vitamin D from food or exposure to sunlight. Many multivitamins now supply the recommended levels (600 IU until age 70 and 800 IU if you're older).

Multivitamins may matter more as people get older, notes Sesso, an associate professor of epidemiology at the Harvard T.H. Chan School of Public Health.

"Our calorie needs tend to decrease as we enter our 60s and 70s," he explains. "Our appetite is not the same as it was, we eat less, and we may not be getting the essential nutrients we need."

And age may make it harder to absorb some vitamins and minerals from food.

"That's why, for example, vitamin B-12 deficiency is of concern among older adults," says Sesso. After age 50, some people secrete less stomach acid, so they absorb less B-12 from their food (though



A multi can be a good safety net (though One A Day's ad exaggerates when it implies that 90 percent of us need one). Can a multi also prevent disease? The jury is still out.

they have no trouble absorbing the B-12 in supplements or fortified foods). And a prolonged B-12 deficiency leads to irreversible nerve damage that can masquerade as dementia.

Most Americans aren't in danger of a vitamin or mineral deficiency, says Sesso, but few people know whether they're near that point.

"For a lot of people, multivitamins add an extra layer of security to ensure they're getting at least minimum levels of essential vitamins and minerals to avoid nutritional deficiency or insufficiency."

Can a multi also prevent disease? That remains an open question.

Lower Cancer Risk?

In the Physicians' Health Study II, Sesso and his colleagues randomly assigned more than 14,000 men aged 50 and older to take a daily Centrum Silver (one of the most popular basic multivitamin-andminerals for seniors) or a placebo.

After 11 years, the multi takers had an 8 percent lower risk of being diagnosed with cancer (and a 9 percent lower risk of cataracts) than the placebo takers.^{1,2}

"And among men who had a history of cancer at the start of the trial, results suggested that the multivitamin was even stronger in preventing new cancers," adds Sesso.

The multi takers were just as likely to have heart attacks or strokes, to suffer memory loss or other cognitive decline, or to die during the study.^{3,4}

(Centrum had no role in conducting the study or interpreting the results.)

But questions remain. "We don't know whether the lower cancer risk found in men extends to women, or whether taking a multivitamin has stronger benefits in those with a history of cancer," says Sesso.

COSMOS, a new clinical trial on women aged 65 or older and men aged 60 or older, should provide some answers by 2020. (Interested in participating? Visit <u>www.</u> <u>cosmostrial.org</u> or call 800-633-6913.) Until then, says Sesso, "we hope to fill in some of these research gaps with observational studies."

Unlike a clinical trial, observational studies look at the risk of disease among people who do or don't choose to take a multi on their own.

For example, the Nurses' Health Study II has tracked more than 43,000 women since 1989. Those who took multivitamins were less likely to have precancerous colon polyps and less likely to be infertile because of ovulation problems.^{5,6}

"The challenge in looking at observational studies is that people who take multivitamins differ from those who don't," says Sesso. "While observational studies try their best to account for the differences—like smoking and exercise—they can't adjust for differences they don't know about."

Then there's the

question of what people take. "We don't know if all multivitamin formulations have similar effects, or whether particular combinations of vitamins and minerals are better than others," says Sesso.

A 2011 observational study of Iowa women rattled some people when it found that multi takers were slightly more likely to die than non-multi takers.⁷

But the result appears to be a fluke. Other observational studies and clinical trials don't find a higher risk of dying among those taking a multi.^{8,9}

"There doesn't appear to be any harm from taking ordinary big-brand multivitamins," says Sesso. "But whether they can prevent disease remains a work in progress."

Skip the specialized formulations that add herbs or other botanicals, says Sesso.

"We don't really know how these ingredients interact and what their long-term effects are."



Vitamin A	2,500-5,000 IU
(includi	ing any % as beta-carotene
Vitamin C	60-1,000 mg
Vitamin D	600-2,000 IU
Vitamin E	20-100 IU
Vitamin K	20 mcg or more
Thiamin (B-1)	1.2 mg or more
Riboflavin (B-2)	1.3 mg or more
Niacin (B-3)	16-35 mg
Vitamin B-6	1.7-100 mg
Vitamin B-12	2.4 mcg or more
Folic Acid	
Premenopausa	
Everyone else	200-400 mcg
Calcium	
Men	No more than 250 mg
Women	No more than 500 mg
Iron	
Premenopausa	
Everyone else	No more than 10 mg
Magnesium	50-350 mg
Zinc	11-30 mg
Copper	0.5-10 mg
Selenium	19-110 mcg
Chromium	35 mcg or more
Potassium	Don't rely on a multi
Note: "Or more	″ doesn't mean that a
	at any dose, but that
	amins are unlikely to

be high enough to cause harm.

The Bottom Line

■ It's worth taking a multivitamin if it supplies nutrients like vitamins D and B-12—that you may not get enough of from food.

Don't count on a multi to "support" your heart, brain, or anything else.

• You don't need to pay more than \$5 a month for a high-quality multivitaminand-mineral.

- ¹ JAMA 308: 1871, 2012.
- ² <u>Ophthalmology 121: 525, 2014</u>.
- ³ <u>JAMA 308: 1751, 2012</u>.
- ⁴ <u>Ann. Intern. Med. 159: 806, 2013</u>.
- ⁵ Br. J. Cancer 110: 249, 2014.
- ⁶ Fertil. Steril. 89: 668, 2008.
- Arch. Intern. Med. 171: 1625, 2011.
- ⁸ <u>Am. J. Epidemiol. 173: 906, 2011</u>.
- ⁹ <u>Am. J. Clin. Nutr. 97: 437, 2013</u>.

The Best-Multis List

Here's a selection of multivitamin-and-mineral supplements from some major brands that meet our criteria, plus a few that just miss for reasons that don't matter (see footnotes). If yours isn't on the list, keep in mind that we didn't look at every multi. You can check any label against our "What Your Multi Should Contain" list.

Premenopausal Women

(enough iron and folic acid)

Centrum Adults CVS Spectravite Adult¹ Nature Made Multi Complete Tablets Walgreens Adults¹ Walmart Equate Complete Adults Under 50¹

¹ Contains 400 IU of vitamin D.

Postmenopausal Women Only (too much calcium for men)

Centrum Silver Women 50+^{1,2} CVS One Daily Women's 50+ Advanced CVS Spectravite Ultra Women 50+^{1,2} One A Day Women's 50+ Healthy Advantage Target Up & Up Women's 50+^{1,2} Walgreens One Daily Women's 50+ Walgreens Women 50+^{1,2} Walmart Equate Complete Women 50+^{1,2} Walmart Equate One Daily Women's 50+

¹ Contains 8 mg of iron (other multis in the list have no iron).

 2 Contains 1.1 mg of thiamin and riboflavin and 14 mg of niacin.

Men or Postmenopausal Women

Centrum Men¹ Centrum Silver Adults 50+ Centrum Silver Men 50+ CVS One Daily Men's Health Formula CVS Spectravite Adult 50+ Tablets² CVS Spectravite Ultra Men¹ CVS Spectravite Ultra Men 50+ Nature Made Multi for Her 50+ Softgels or Tablets Nature Made Multi for Him Tablets Nature Made Multi for Him 50+ Tablets One A Day Men's 50+ Healthy Advantage³ One A Day Men's Health Formula One A Day Men's Pro Edge Target Up & Up Men's Daily Walgreens Adults 50+2 Walgreens Men¹ Walgreens Men 50+ Walgreens One Daily Men's Walmart Equate Complete Adults 50+2 Walmart Equate Complete Men 50+ Walmart Equate One Daily Men's 50+3 Walmart Equate One Daily Men's Health

² Contains 500 IU of vitamin D.

³ Contains 117 mcg of selenium.

¹ Contains 8 mg of iron (other multis in the list have no iron).



The best chewable we found.

Gummies & Chewables Fall Short

An estimated 2,500 Americans end up in hospital emergency rooms each year because of trouble swallowing supplements, usually vitamins and minerals. Nearly half are adults 65 and older.

That's one reason why multivitamin gummies, chewables, mints, and liquids are flying off shelves. Another is obvious: they taste like candy.

Too bad these easier-to-swallow alternatives don't measure up to ordinary multivitamins. Many contain far less than recommended levels of vitamins and minerals, and some

are missing key nutrients like zinc, magnesium, and chromium.

Of the 40+ products we looked at, only two came reasonably close to the supplements in our Best-Multis List: Centrum Silver Chewables Adults 50+ (it was missing vitamin K) and its knockoff CVS Spectravite Adult 50+ Chewable Tablets.

Gummies fared the worst. Most were missing at least five nutrients that a "Best Multi" should contain.



A Cure for Everything?

Some multivitamin companies-Centrum isn't the only one-claim that their supplements can take care of just about everything that might be bothering you: heart, eyes, muscles, energy level, even how you look. Time for a reality check.



IMMUNITY. "Antioxidants support normal immune function."

In three clinical trials with a total of roughly 2,150 middle-aged and older men and women, multivitamin takers were just as likely to get sick-or stay sick for just as long—as placebo takers 1-3

¹ J. Am. Geriatr. Soc. 55: 35, 2007. ² BMJ 331: 324, 2005. ³ JAMA 288: 715, 2002.



MUSCLE FUNCTION. "Magnesium, Vitamin D and B6 support muscle function."

The jury is still out over whether magnesium or vitamin D supplements help with muscles, but there's no good evidence that vitamin B-6 does.



HEALTHY APPEARANCE. "Biotin, beta-carotene, vitamins A, C and E help maintain healthy appearance."

Unless you're suffering from a rare, life-threatening nutrient deficiency like scurvy, there's no good evidence that a multi will help with your skin or hair.



avaluated buths Far







HEART HEALTH. "B-vitamins help promote heart health."

A dozen good clinical trials have shown that B vitamins don't reduce the risk of heart attacks or strokes.¹

¹ Cochrane Database Syst. Rev. 1: CD006612, 2013.

EYE HEALTH. "Vitamins A, C, and E and Lutein support healthy eyes."

There's decent evidence for this one. Male physicians who took a multivitamin (Centrum Silver) every day for 11 years had a 9 percent lower risk of cataracts than those who took a placebo.¹

¹ Ophthalmology 121: 525, 2014.

ENERGY. "B-vitamins and iron support daily energy needs."

B vitamins won't make you feel more energetic. Iron helps combat fatigue only if you suffer from anemia caused by an iron deficiency.

ноw то Multivitar

This made-up multivitamin label shows how much of each vitamin and mineral we should aim for every day (from foods and supplements combined), according to the current Daily Values (DVs) set by the Food and Drug Administration. The DVs are based

VITAMIN A. Most multivitamins contain some mix of retinol (vitamin A) and beta-carotene (which our bodies convert to retinol). The DV is dropping from 5,000 IU to 3,000 IU, but labels will list the new DV as 900 micrograms RAE (Retinol Alpha Equivalents). More than 10,000 IU (3,000 mcg RAE) a day of retinol from supplements can cause birth defects if taken by pregnant women. High doses of beta-carotene (25,000 to 50,000 IU a day) raise the risk of lung cancer in smokers and, possibly, former smokers.

VITAMIN D. The DV is doubling, from 400 IU to 800 IU (20 mcg). Our bodies make vitamin D from sunlight, and it's added to milk, some breakfast cereals, and some yogurts. A large trial is testing whether vitamin D helps prevent cancer, heart disease, stroke, diabetes, memory loss, depression, and more. Taking more than 4,000 IU (100 mcg) a day may lead to dangerously high blood levels of calcium.

THIAMIN (B-1), RIBOFLAVIN (B-2), NIACIN (B-3), B-6. The DVs for these B vitamins are dropping slightly. Way-above-the-DV doses are useless but safe. Exceptions: 50 milligrams of niacin can cause flushing of the skin and more than 100 mg of B-6 can cause (reversible) nerve damage and skin lesions.

VITAMIN B-12. The DV is dropping from 6 micrograms to 2.4 mcg. Adults over 50 should get most of their 2.4 mcg from a supplement or fortified food because they may not make enough stomach acid to digest and absorb B-12 from meats, eggs, and dairy foods. Ditto for vegans (who eat no animal foods). A B-12 deficiency can cause anemia and irreversible nerve damage that can masquerade as dementia.

BIOTIN, PANTOTHENIC ACID. Superfluous. We get plenty from our food.

IRON. Premenopausal women, who lose iron through menstruation, should get the DV (18 milligrams). Most men and postmenopausal women don't need more than 10 mg from a multi. More isn't better, because there's no easy way to know if you have genes that lead your body to store excess iron (hemochromatosis), which may raise your risk of cirrhosis, liver cancer, diabetes, or an irregular heartbeat.

MAGNESIUM. The DV is increasing from 400 milligrams to 420 mg. About half of all Americans get less magnesium than recommended, which may raise their risk of diabetes. Leafy greens, beans, whole grains, and nuts are the best sources. Few multis have more than 100 mg. More than 350 mg from supplements (but not foods) can cause diarrhea and stomach cramps.

SELENIUM. The DV is dropping from 70 micrograms to 55 mcg. Americans average about 100 mcg from their food. Whether selenium supplements increase the risk of type 2 diabetes and prostate cancer is still unclear, so stick to a multi with no more than about 100 mcg.

CHROMIUM. The DV is dropping from 120 micrograms to 35 mcg. If you have type 2 diabetes, don't expect chromium to lower your blood sugar.

IODINE, MANGANESE, MOLYBDENUM, CHLORIDE, BORON. The Centers for Disease Control and Prevention warns that many women in their 20s and 30s may not be getting enough iodine, which the developing brain needs during pregnancy. Dairy foods and seafood are good sources. We get plenty of the other minerals from our food.

Supplement Fact Vitamin A Vitamin C Vitamin D Vitamin E Vitamin K Thiamin (Vitamin B-1) Riboflavin (Vitamin B-2) Niacin (Vitamin B-3) Vitamin B-6 Folic Acid Vitamin B-12 Biotin Pantothenic Acid Calcium Iron Phosphorus Magnesium Zinc Copper Selenium Chromium Iodine Manganese Molybdenum Chloride Potassium Boron Nickel Sillicon Tin	
Vitamin A Vitamin C Vitamin D Vitamin E Vitamin K Thiamin (Vitamin B-1) Riboflavin (Vitamin B-2) Niacin (Vitamin B-3) Vitamin B-6 Folic Acid Vitamin B-12 Biotin Pantothenic Acid Calcium Iron Phosphorus Magnesium Zinc Copper Selenium Chromium Iodine Manganese Molybdenum Chloride Potassium Boron Nickel Sillicon Tin	
Vitamin A Vitamin C Vitamin D Vitamin E Vitamin K Thiamin (Vitamin B-1) Riboflavin (Vitamin B-2) Niacin (Vitamin B-3) Vitamin B-6 Folic Acid Vitamin B-12 Biotin Pantothenic Acid Calcium Iron Phosphorus Magnesium Zinc Copper Selenium Chromium Iodine Manganese Molybdenum Chloride Potassium Boron Nickel Sillicon Tin	
Vitamin A Vitamin C Vitamin D Vitamin E Vitamin K Thiamin (Vitamin B-1) Riboflavin (Vitamin B-2) Niacin (Vitamin B-3) Vitamin B-6 Folic Acid Vitamin B-12 Biotin Pantothenic Acid Calcium Iron Phosphorus Magnesium Zinc Copper Selenium Chromium Iodine Manganese Molybdenum Chloride Potassium Boron Nickel Sillicon Tin	
Vitamin A Vitamin C Vitamin D Vitamin E Vitamin K Thiamin (Vitamin B-1) Riboflavin (Vitamin B-2) Niacin (Vitamin B-3) Vitamin B-6 Folic Acid Vitamin B-12 Biotin Pantothenic Acid Calcium Iron Phosphorus Magnesium Zinc Copper Selenium Chromium Iodine Manganese Molybdenum Chloride Potassium Boron Nickel Sillicon Tin	
Vitamin A Vitamin C Vitamin D Vitamin E Vitamin K Thiamin (Vitamin B-1) Riboflavin (Vitamin B-2) Niacin (Vitamin B-3) Vitamin B-6 Folic Acid Vitamin B-12 Biotin Pantothenic Acid Calcium Iron Phosphorus Magnesium Zinc Copper Selenium Chromium Iodine Manganese Molybdenum Chloride Potassium Boron Nickel Sillicon Tin	
Vitamin A Vitamin C Vitamin D Vitamin E Vitamin K Thiamin (Vitamin B-1) Riboflavin (Vitamin B-2) Niacin (Vitamin B-3) Vitamin B-6 Folic Acid Vitamin B-12 Biotin Pantothenic Acid Calcium Iron Phosphorus Magnesium Zinc Copper Selenium Chromium Iodine Manganese Molybdenum Chloride Potassium Boron Nickel Sillicon Tin	
Vitamin A Vitamin C Vitamin D Vitamin E Vitamin K Thiamin (Vitamin B-1) Riboflavin (Vitamin B-2) Niacin (Vitamin B-3) Vitamin B-6 Folic Acid Vitamin B-12 Biotin Pantothenic Acid Calcium Iron Phosphorus Magnesium Zinc Copper Selenium Chromium Iodine Manganese Molybdenum Chloride Potassium Boron Nickel Sillicon Tin	Supplement Fact
Vitamin C Vitamin D Vitamin E Vitamin K Thiamin (Vitamin B-1) Riboflavin (Vitamin B-2) Niacin (Vitamin B-3) Vitamin B-6 Folic Acid Vitamin B-12 Biotin Pantothenic Acid Calcium Iron Phosphorus Magnesium Zinc Copper Selenium Chromium Iodine Manganese Molybdenum Chloride Potassium Boron Nickel Sillicon Tin	
Vitamin C Vitamin D Vitamin E Vitamin K Thiamin (Vitamin B-1) Riboflavin (Vitamin B-2) Niacin (Vitamin B-3) Vitamin B-6 Folic Acid Vitamin B-12 Biotin Pantothenic Acid Calcium Iron Phosphorus Magnesium Zinc Copper Selenium Chromium Iodine Manganese Molybdenum Chloride Potassium Boron Nickel Sillicon Tin	
Vitamin C Vitamin D Vitamin E Vitamin K Thiamin (Vitamin B-1) Riboflavin (Vitamin B-2) Niacin (Vitamin B-3) Vitamin B-6 Folic Acid Vitamin B-12 Biotin Pantothenic Acid Calcium Iron Phosphorus Magnesium Zinc Copper Selenium Chromium Iodine Manganese Molybdenum Chloride Potassium Boron Nickel Sillicon Tin	Vitamin A
Vitamin E Vitamin K Thiamin (Vitamin B-1) Riboflavin (Vitamin B-2) Niacin (Vitamin B-3) Vitamin B-6 Folic Acid Vitamin B-12 Biotin Pantothenic Acid Calcium Iron Phosphorus Magnesium Zinc Copper Selenium Chromium Iodine Manganese Molybdenum Chloride Potassium Boron Nickel Sillicon Tin	
Vitamin K Thiamin (Vitamin B-1) Riboflavin (Vitamin B-2) Niacin (Vitamin B-3) Vitamin B-6 Folic Acid Vitamin B-12 Biotin Pantothenic Acid Calcium Iron Phosphorus Magnesium Zinc Copper Selenium Chromium Iodine Manganese Molybdenum Chloride Potassium Boron Nickel Sillicon Tin	
Thiamin (Vitamin B-1) Riboflavin (Vitamin B-2) Niacin (Vitamin B-3) Vitamin B-6 Folic Acid Vitamin B-12 Biotin Pantothenic Acid Calcium Iron Phosphorus Magnesium Zinc Copper Selenium Chromium Iodine Manganese Molybdenum Chloride Potassium Boron Nickel Sillicon Tin	
Riboflavin (Vitamin B-2) Niacin (Vitamin B-3) Vitamin B-6 Folic Acid Vitamin B-12 Biotin Pantothenic Acid Calcium Iron Phosphorus Magnesium Zinc Copper Selenium Chromium Iodine Manganese Molybdenum Chloride Potassium Boron Nickel Sillicon Tin	Vitamin K
Riboflavin (Vitamin B-2) Niacin (Vitamin B-3) Vitamin B-6 Folic Acid Vitamin B-12 Biotin Pantothenic Acid Calcium Iron Phosphorus Magnesium Zinc Copper Selenium Chromium Iodine Manganese Molybdenum Chloride Potassium Boron Nickel Sillicon Tin	Thiamin (Vitamin B-1)
Niacin (Vitamin B-3) Vitamin B-6 Folic Acid Vitamin B-12 Biotin Pantothenic Acid Calcium Iron Phosphorus Magnesium Zinc Copper Selenium Chromium Iodine Manganese Molybdenum Chloride Potassium Boron Nickel Sillicon Tin	Riboflavin (Vitamin B-2)
Vitamin B-6 Folic Acid Vitamin B-12 Biotin Pantothenic Acid Calcium Iron Phosphorus Magnesium Zinc Copper Selenium Chromium Iodine Manganese Molybdenum Chloride Potassium Boron Nickel Sillicon Tin	Niacin (Vitamin B-3)
Vitamin B-12 Biotin Pantothenic Acid Calcium Iron Phosphorus Magnesium Zinc Copper Selenium Chromium Iodine Manganese Molybdenum Chloride Potassium Boron Nickel Silicon Tin	
Biotin Pantothenic Acid Calcium Iron Phosphorus Magnesium Zinc Copper Selenium Chromium Iodine Manganese Molybdenum Chloride Potassium Boron Nickel Sillicon Tin	Folic Acid
Biotin Pantothenic Acid Calcium Iron Phosphorus Magnesium Zinc Copper Selenium Chromium Iodine Manganese Molybdenum Chloride Potassium Boron Nickel Sillicon Tin	Vitamin B-12
Calcium Iron Phosphorus Magnesium Zinc Copper Selenium Chromium Iodine Manganese Molybdenum Chloride Potassium Boron Nickel Silicon Tin	
Calcium Iron Phosphorus Magnesium Zinc Copper Selenium Chromium Iodine Manganese Molybdenum Chloride Potassium Boron Nickel Silicon Tin	Pantothenic Acid
Phosphorus Magnesium Zinc Copper Selenium Chromium Iodine Manganese Molybdenum Chloride Potassium Boron Nickel Silicon Tin	
Magnesium Zinc Copper Selenium Chromium Iodine Manganese Molybdenum Chloride Potassium Boron Nickel Silicon Tin	Iron
Magnesium Zinc Copper Selenium Chromium Iodine Manganese Molybdenum Chloride Potassium Boron Nickel Silicon Tin	Phosphorus
Zinc Copper Selenium Chromium Iodine Manganese Molybdenum Chloride Potassium Boron Nickel Silicon Tin	Magnesium
Selenium Chromium Iodine Manganese Molybdenum Chloride Potassium Boron Nickel Silicon Tin	Zinc
Selenium Chromium Iodine Manganese Molybdenum Chloride Potassium Boron Nickel Silicon Tin	Copper
Iodine Manganese Molybdenum Chloride Potassium Boron Nickel Silicon Tin	
Manganese Molybdenum Chloride Potassium Boron Nickel Silicon Tin	
Molybdenum Chloride Potassium Boron Nickel Silicon Tin	
Chloride Potassium Boron Nickel Silicon Tin	
Potassium Boron Nickel Silicon Tin	Molybdenum
Boron Nickel Silicon Tin	
Nickel Silicon Tin	
Silicon Tin	Boron
Tin	
	Tin Vanadium

*Daily Value not established

READ A

on the National Academy of Medicine's Recommended Dietary Allowances (RDAs), which vary slightly by age and sex. The FDA recently updated the DVs, but labels don't have to use the new DVs until July 2018.

	A ANY	
RDA	Current DV	
3,000 IU	5,000 IU	
90 mg	60 mg	
800 IU	400 IU	
33 IU	30 IU	
120 mcg	80 mcg	
1.2 mg	1.5 mg	/
1.3 mg	1.7 mg	
16 mg	20 mg	
1.7 mg	2 mg	
400 mcg	400 mcg	
2.4 mcg	6 mcg	
30 mcg	300 mcg 10 mg	
5 mg 1,200 mg	1,000 mg	
18 mg	18 mg	
700 mg	1,000 mg	
420 mg	400 mg	
11 mg	15 mg	
0.9 mg	2 mg	
55 mcg	70 mcg	
35 mcg	120 mcg	
150 mcg	150 mcg	
2.3 mg	2 mg	
45 mcg	75 mcg	
2,300 mg	3,400 mg	
4,700 mg	3,500 mg	

VITAMIN C. The DV is rising from 60 milligrams to 90 mg. Many Americans get too little vitamin C from their food. Smokers need 125 mg a day. To play it safe, people who are regularly exposed to secondhand smoke should also get 125 mg. Taking more than 1,000 mg at one time can cause diarrhea.

VITAMIN E. The DV is dropping from 30 IU to 15 mg, which is equal to 22.5 IU. High doses of vitamin E may not be safe. In a large trial, men who took 400 IU a day for 5½ years had a 17 percent higher risk of prostate cancer. To play it safe, look for a multi with no more than 100 IU. Good food sources include nuts, oils, whole grains, and leafy greens.

VITAMIN K. The DV is jumping from 80 micrograms to 120 mcg. Most multivitamins have less because vitamin K can interfere with blood-thinning drugs like warfarin (Coumadin). If you're taking a blood thinner, check with your doctor before you start (or stop) taking a multivitamin with vitamin K. Leafy greens are the best food source.

FOLIC ACID. The new DV is 400 micrograms DFE (Dietary Folate Equivalent), but supplements will also list the old units (micrograms, or mcg). The DFE adjusts the levels to account for our ability to absorb the *folic acid* that is added to supplements or fortified foods better than the *folate* that occurs naturally in foods. Women who could become pregnant should take a supplement with 400 mcg of folic acid (ignore how many mcg DFE it has) to reduce the risk of birth defects like spina bifida, which can occur before a woman knows that she is pregnant.

CALCIUM. The DV is rising from 1,000 milligrams to 1,300 mg. That's based on what children aged 9 to 18 need. Premenopausal women and men up to age 70 need 1,000 mg. Postmenopausal women and men over 70 need 1,200 mg. Most multivitamins have 200 to 500 mg. That may be enough to get you to the DV, since each serving of milk, yogurt, cheese, or fortified foods has 150 to 300 mg, and most people get 250 mg from the rest of their diet. Taking a daily supplement with 1,000 mg or more may raise the risk of kidney stones and hip fractures. Taking 2,000 mg or more may raise the risk of prostate cancer.

PHOSPHORUS. The DV is 1,000 milligrams. Most people get plenty of phosphorus, because it occurs naturally in meat, poultry, grains, and dairy, and companies add phosphates and phosphoric acid to many processed foods. Too much phosphorus may raise the risk of heart and kidney disease. Look for a multi with little or none.

ZINC, COPPER. The DV for zinc is dropping from 15 milligrams to 11 mg, and the DV for copper is dropping from 2 mg to 0.9 mg. Too much zinc (more than 40 mg from food and supplements combined) can make it harder to absorb copper.

POTASSIUM. The DV is increasing from 3,500 milligrams to 4,700 mg, which few people get. Potassium can help lower blood pressure, but a typical multi has less than 100 mg. And the kind of potassium in most supplements—potassium chloride—won't help prevent kidney stones and bone loss like the potassium citrate in fruits and vegetables. Banana, anyone?

NICKEL, SILICON, TIN, VANADIUM. Don't worry. It's not even certain that we need them.

Supermarket shelves for sale

SPECIAL FEATURE

Why do supermarkets sell candy at the checkout? Why are there displays of soda and chips at the ends of aisles? Why do some items get buy-one-get-one-free deals?

"Consumer demand is not the only force that drives what supermarkets sell," says *Rigged*, a new exposé from the Center for Science in the Public Interest (*Nutrition Action*'s publisher). In fact, what shoppers want often takes a back seat to backroom deals between stores and food-industry giants.

As for smaller companies that make healthier items: they—and consumers—are often out of luck. Here's an inside look at how the supermarket system is rigged.

Pay to Play

In late 2006, Jon Gordon bought a highgrade ice cream maker with the idea of producing sugar-free ice cream. The Southern California entrepreneur had dropped his pint-a-day habit after his doctor warned that he was at risk for type 2 diabetes.

In 2007, Gordon launched Clemmy's. Bloggers raved about its taste.

A slam dunk? Hardly.

Retail sales of ice cream are dominated by two companies: Nestlé (Häagen-Dazs, Dreyer's, Edy's, Skinny Cow) and Unilever (Ben & Jerry's, Breyers, Klondike).

The average supermarket allots the shelf space behind maybe 24 freezer doors to frozen desserts, Gordon calculated. And 22 of them were stocked with Nestlé or Unilever products or store brands.

"That left only about two doors for the rest of us," says Gordon. The competition was fierce, "meaning the stores could charge what they wanted to get space on one of those shelves."

That included:

■ Slotting fees. Gordon paid \$30,000 to get three flavors into Albertsons and \$50,000 to get several flavors into ShopRite. But that only got Clemmy's shelf space in some locations. He skipped Stop & Shop, which wanted \$110,000 per flavor. Safeway asked for nothing, but sold Clemmy's in only a fraction of its stores.

■ Pay-to-stay deals. Some chains wanted annual fees to retain a spot inside the freezer. And Clemmy's often had to provide free ice cream for "buy one, get one free" deals, coupons, or other promotions.



In a typical supermarket, you'll find chips in the snack aisle, at end-of-aisle displays, and near the checkout. Forget to buy broccoli in the produce aisle? You won't see it again.

"Big Food" in Charge

Some stores rely on "category captains" —food manufacturers who decide where each item goes in their designated section of the store. Nestlé was the category captain for frozen desserts in 22 of the country's 25 largest supermarket chains, while Unilever likely ran the other three, notes Gordon.

Nestlé would stick Clemmy's on a lower shelf in a corner of the freezer case, or "behind a hinge in an upper left door so that you can barely see it," Gordon told the Palm Springs *Desert Sun* in 2013.

In 2012, Kroger, the nation's largest grocery chain, was about to take Clemmy's national, but Nestlé intervened, according to a lawsuit charging monopolistic business practices that Gordon filed against Nestlé in 2013.

In 2015, a California Superior Court judge dismissed the case. Gordon's

company, by then an industry pariah, filed for bankruptcy.

"You don't start a food company thinking you have to deal with payola, but that's what it was all about," he says.

Why do supermarkets insist on pay to play?

To make money. And the checkout and end-of-aisle displays (endcaps) command the highest fees.

"Make no mistake," explains Herb Sorensen, a longtime supermarket consultant. "The suppliers are the store's real customers. They're willing to pay for access to the traffic a good store attracts."

Over time, food-industry heavyweights

SPECIAL FEATURE



Why do companies pay a premium for space in the checkout aisle? Nearly two out of three shoppers never visit the candy aisle, but everyone goes through checkout.

—like Coca-Cola, PepsiCo, Mars, and Mondelēz (Oreos, Chips Ahoy, Triscuits, Nabisco)—learned to like fees because they favor the big players.

"We absolutely loved them because it lets you lock up a space," says a former top marketing executive at Coca-Cola, who, like many people who agreed to talk, asked not to be identified.

The big guys use fees to get their products everywhere. Coke called it "360 degree marketing."

"We wanted to have Coke next to the deli sandwiches," says the executive. "We wanted Coke in a cooler at checkout. We wanted an endcap. We wanted a vending machine. We wanted to have 10 or 20 places at a single grocery store."

expect a reminder elsewhere in the store. Pepsi called its strategy the "Power of One." Its representative, explains a

Forget to buy berries or kale? Don't

One." Its representative, explains a broker, tells a big chain, "We're Frito-Lay, we're Mountain Dew, we're Quaker Oats,



This article is adapted from *Rigged: Supermarket Shelves for Sale*, by investigative journalist Gary Rivlin, edited by CSPI's Jessica Almy and Margo Wootan. The full report is available for free at <u>cspinet.org/Rigged</u>. we're Gatorade. If you agree to all these placements and pairings"—like Mountain Dew and Lay's chips together on an endcap—"we'll give you a premium."

Small competitors don't have a chance.

"If you're this little organic guy or healthier guy trying to get a healthier bar or a healthier beverage on the shelf or checkout aisle," says the ex-Coke executive, "it can seem insurmountable because of the strength and scale of these players."

Beachfront Property

The most valuable real estate in the store is the checkout aisle. "This is the beachfront property," explains a broker.

The average price for just a few months' worth of space near the checkout works out to \$3 to \$5 *per inch*. A candy bar would need about six inches. So it could cost upwards of \$5 million for the bar to secure a spot on the checkout shelf in the 50 biggest chains for several months to a year.

"They have a lot more demand for space than they have space available," says the broker. "Retailers can get away with charging pretty much what they want."

Look at it this way: nearly two out of three shoppers never visit the candy aisle, but everyone goes through checkout.

Soda and chips also want the beachfront. "No one is making money on that two-liter bottle," notes another broker. "Not the bottler and not the retailer." Ditto for the 12-packs that are often on sale.

But the refrigerated 20-ounce bottles that people grab at the checkout yield enormous profits. And Frito-Lay makes more on the small \$1.49 bags of Doritos people buy while waiting in line than the big \$3.49 bags.

"If I'm Coke or Frito-Lay, I'm paying whatever I have to so as to get placement by the cash register," says the broker.

"It's sad," says a food company executive. "The country is demanding healthier products, but...it doesn't make a difference how good a product is for you or how much people might like it.

"If you don't have the money, you can't play the game. You're buried in the back of the store—if you can get inside at all."



Stores and soda companies make more from refrigerated 20 oz. bottles at the checkout than from two-liter bottles in the aisles.

Weight & Cancer



xtra pounds may boost the risk of more cancers than previously thought, says the International Agency for Research on Cancer (IARC).

In 2002, IARC concluded that there was "sufficient" evidence that excess weight increased the risk of five cancers: colon, uterus, esophagus, kidney, and breast cancer in postmenopausal women.

Now the list includes eight more cancers: stomach, liver, gallbladder, pancreas, ovary, thyroid, multiple myeloma (cancer of white blood cells in the bone marrow), and meningioma (cancer of the tissue that surrounds the brain and spinal cord). Excess body fat had the biggest impact on the risk of esophageal and uterine cancers. But when it comes to

cancers like breast and colon, where we already have a high risk, even a small increase matters.

Excess weight may lead to cancer by altering sex hormones, causing chronic inflammation, and raising insulin levels, suggests IARC.

What to do: Lose excess weight if you can. And, unless you're too thin, watch what you eat so you don't gain more.

N. Engl. J. Med. 375: 794, 2016.

Bigger Lunch or Dinner?

Dieters might lose more weight if their main meal were lunch instead of dinner.

Scientists randomly assigned 80 overweight or obese women aged 18 to 45 to eat either half their daily calories at lunch and 20 percent at dinner or vice versa.

The women were told to get 15 percent of their calories each at breakfast and as snacks. They were also told to cut their calories and fat intake, to eat at least 14 ounces of fruits and vegetables a day, and to work toward an hour of exercise five days a week.

After three months, the "big lunch" group had lost nearly 12½ pounds, while the "big dinner" group had lost about 9½ pounds. Insulin resistance fell more in the big lunch group, which could have been due to their greater weight loss.



Make your dinners light.

What to do: If you're trying to lose weight, try eating your main meal at lunch instead of dinner. But don't assume that you'll burn more calories that way. A bigger lunch may simply help people stick to their diets, say the authors.

Am. J. Clin. Nutr. 2016. doi:10.3945/ajcn.116.134163.

Women Under Stress

S tress may harm women with heart disease more than men.

Researchers gave a mental stress test to roughly 200 women and 500 men aged 34 to 79 with stable heart disease. The participants were asked to imagine that a close relative was being mistreated in a nursing home. They had two minutes to make up a realistic story about the relative and three minutes to present the story in front of a video camera and an audience wearing white coats.

In 33 percent of the women—but only 8 percent of the men—aged 50 or younger, researchers could see impaired blood flow in the heart muscle during the test. They saw no differences between older women and men. Nor did they find any difference between men and women of any age during a conventional stress test, which looks at blood flow in the heart during exercise on a treadmill.

What to do: Don't ignore stress. It can trigger a heart attack, especially in women.

J. Am. Heart Assoc. 2016. doi:10.1161/JAHA.116.003630.

Order Ahead

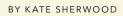
Ordering out? You may order—and eat—less if you order ahead. Researchers randomly assigned 195 undergraduate and grad students to order a free lunch either before or right after a class that ended around noon. (The "before" group ordered their lunches roughly one to three hours earlier than the "after" group.)

For lunch, students could choose one of three half-sandwiches, one of three side dishes (like coleslaw), a dessert (cookie or fruit), and one of three drinks.

The results: the before group ordered fewer calories (890) than the after group (1,000). Ordering ahead had the most impact on the choice of beverages and the least impact on sandwiches.

What to do: Try ordering ahead. You may order less if you're less hungry.

Veggie Nice!



This is one of my favorite recipes from my new cookbook, *Veggie Nice!* —31 vegetarian main dishes to help you eat a more plant-based diet.

Got a question or suggestion? Write to Kate at <u>healthycook@cspinet.org</u>.

Eggplant & Quinoa Stuffed Peppers



This is the easiest and quickest way to make stuffed peppers. A sprinkle of parmesan would add a nice sparkle.

- 1/2 cup quinoa
- 2 bell peppers, halved lengthwise
- 2 Tbs. + 1 Tbs. extravirgin olive oil
- 1/2 lb. small purple eggplant, diced
- 1. Cook the quinoa according to the package instructions.
- 2. While the quinoa is cooking, preheat the oven to 450°F. Place the peppers, skin side up, on a baking sheet lined with parchment paper or foil. Roast until browned in spots and starting to soften, 8-10 minutes.
- 3. Heat 2 Tbs. of the oil in a large non-stick pan and sauté the eggplant until golden brown on at least two sides, 5-7 minutes. Set the eggplant aside in a bowl.
- Add the remaining 1 Tbs. of oil to the pan and sauté the onion and carrot until lightly browned, 5-7 minutes.

- 1 onion, diced
- 1 carrot, diced
- 3 Tbs. tomato paste
- 1/2 tsp. kosher salt Freshly ground black pepper
 - 5. Stir in the tomato paste and cook, stirring often, for another 2 minutes.
 - 6. Stir in ½ cup of water and the eggplant. Simmer until the eggplant is very tender, 3-5 minutes.
 - 7. Stir in the cooked quinoa and season with up to ½ tsp. of salt and pepper to taste.
 - 8. Spoon the eggplant mixture into the peppers.

Per serving (2 stuffed pepper halves): calories 470 | total fat 24 g | sat fat 3 g carbs 56 g | fiber 12 g | protein 11 g sodium 530 mg



From White Beans with Roasted Cherry Tomatoes to Chipotle Tofu Lettuce Tacos, 31 vegetarian main dishes from Kate Sherwood, Nutrition Action's Healthy Cook.

Visit <u>NutritionAction.com/VeggieNice</u> or send a check for \$16.99 and your name & address to CSPI—Veggie Nice, Suite 300, 1220 L St. NW, Washington DC 20005.



BRAND-NAME RATING

ereal Smarts HOW TO PICK A WINNER

BY LINDSAY MOYER & BONNIE LIEBMAN

ereal companies are worried. Sales are down, in part because yogurt, bars, and other grab-and-go foods are gaining ground. Who has time to sit down and pour a bowl of cereal, for gosh sakes?

To win shoppers back, cereal makers are dropping artificial ingredients, touting cereal as a nighttime snack, nudging you to "feed your inner kidult," and promising to "nourish" you. Here's how to look beyond the hype and find the best cereals.

The information for this article was compiled by Leah Ettman.

be anywhere from ¹/₄ cup to 1¹/₄ cups.

Some brands of granola and mueslilike Bear Naked, Kashi, and Bob's Red Mill—cheat by using the serving size for snacks (1 oz.) when they should use heavy cereals' (2 oz.) serving. (We doubled their serving sizes in our chart.)

Bottom line: Make sure the serving on the label matches the serving in your bowl ... or adjust the numbers on the Nutrition Facts label accordingly.

D Limit added sugars. Before July 2018, labels don't have to list added sugars separately from *total* sugars, which include the naturally occurring sugar in fruit and milk. (Added sugars include healthy-sounding sweeteners like dried cane syrup, agave, honey, molasses, fructose, and fruit juice concentrate.)

Our Best Bites have no more than 1¹/₂ teaspoons (7 grams) of total sugar for light cereals or 21/2 teaspoons (11 grams) for heavy cereals. (For some of our taste faves, see photos at bottom.) To avoid penalizing fruit-rich cereals like raisin bran, we set no total sugar limit if fruit came before an added sugar in the ingredient list.

Get enough unprocessed fiber. 4 "Every bowl contains 6 grams of natural fiber from whole grain wheat. Never artificial fiber," says Post Original Shredded Wheat. Kudos to Post for boasting about the unprocessed, intact fiber that comes from whole grains and bran.

We have no fiber criteria for our Best Bites because Nutrition Facts labels don't break down how much of a cereal's fiber is unprocessed and how much is processed (from inulin or chicory root fiber, oat fiber, soluble corn or wheat fiber, or other sources). Processed fibers may not keep you regular, lower your cholesterol, or keep a lid on your blood sugar as well as the real thing.

Still, it's worth aiming for more unprocessed fiber. Wheat bran, whole-grain wheat, and oats are your best bets. Brown rice and whole-grain corn have less.

Don't forget saturated fat. We **O** set a 2¹/₂-gram limit for Best Bites because a few products (mostly granolas) have enough chocolate or coconut to hit 3 to 6 grams. But most cereals have little or no sat fat.



Studded with fruit, nuts, and seeds. Our favorite muesli.



Rich in unprocessed fiber from wheat bran, and not too sweet.

Go for whole grains. If the label says "100% whole grain," you're good. If not, check the ingredient list. If corn or wheat isn't "whole" and rice isn't "brown," assume that they're refined. On the other hand, assume that oats, sprouted grains, and "ancient" grains like quinoa, millet, or sorghum are whole, even if they don't say so.

And bran isn't a whole grain, but we count it as whole because it's the fiber-rich outer layer of the grain that's missing from refined grains.

Our Best Bites are all (or nearly all) whole grain. That means the first two grain ingredients are typically whole grain or bran. (We didn't exclude cereals with some refined grain far down in the ingredient list because there's so little.)

Check the serving size. Why does *L* it matter? Take Bear Naked Honey Almond Granola. It has just 150 calories, says the label. But that's if you eat only ¹/₄ cup. As if.

Checking serving sizes is crucial for cereal because they range from roughly 30 grams (1 oz.) for light cereals to 55 grams (2 oz.) for heavy cereals. And the serving size listed on the label could

SPI



Gluten-free, 9 grams of protein, and delish.



Extra-crunchy clusters. One of the lowest-sugar granolas.



Shredded wheat plus cocoa and cinnamon. Yum.

Whole Grain, Sorta

"Whole grain," says Kellogg's Special K Red Berries. White rice is its first ingredient.

"Made with whole grain," says Kellogg's Jif PB&J Strawberry. Refined corn meal is its second grain ingredient.

"First ingredient whole grain," says Gen-

not all whole grain. eral Mills Cinnamon Chex. White rice is second.

"Wholesome multigrain flakes," says Quaker Real Medleys Peach Apple Walnut Multigrain Cereal. The "multigrain" flakes are a medley of refined rice and wheat flour.

Bottom line: Unless the label says "100% whole grain," be skeptical. (For help navigating "whole grain" claims, see "Go for whole grains," p. 12.)

MEDLEYS

"Multigrain" often means

Padding the Protein

"There are a lot of ways to pack your breakfast with protein," says the TV ad for Nature Valley cereals. "At least 10 grams of protein with milk, and a touch of sweetness."

Never mind that 3 to 4 teaspoons of sugar is a pretty hefty "touch."

Companies are still using milk to pad their protein claims. Without the milk that you add, a serving of Nature Valley cereal has 6 to 8 grams of protein. That beats corn flakes, but it's not great for a



Four of its 10 grams of protein come from your milk.

roughly 200-calorie cereal. You'd get more protein per 100 calories with Kashi GoLean Original or Kellogg's Special K Protein.

And don't get sidetracked by "complete protein" claims. "While other foods use soy protein, in this recipe, we use a multisource plant protein blend to form a complete protein," says Kashi Vanilla Pepita GoLean Clusters. Hellooo... Soy's protein is as "complete" as animal protein (and its bad rep is unfounded). What's more, most people get enough variety in their diets that they don't need to worry about complete protein anyway.



Want berries? You'll have to chew the box.

Made With...Not Much

Berries or nuts in the name? There may not be much in the box:

 General Mills Strawberry Tiny Toast ("flavored with real strawberries and other natural flavors") has more corn starch than dried strawberry purée.

 Kellogg's Special K Fruit & **Yogurt** has berries on the box, but only dried apples and food dyes (red 40 and blue 1) inside. And the

"yogurt" is cultured milk that has been "heat treated," which kills the yogurt's cultures.

• General Mills Fruity Cheerios has more oil (1¹/₂ grams) than either of its two fruit ingredients: pear purée concentrate and fruit juice (the juice is added for color).

• Kashi Organic Berry Fruitful has more (organic!) grape juice concentrate, corn starch, and apple powder than any berry purée concentrate.

 Quaker Real Medleys SuperGrains Blueberry Pecan granola has more brown sugar and oil than pecans, and more corn starch than quinoa or blueberries.

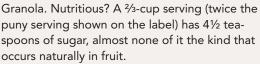
• Kellogg's Special K Chocolatey Delight's "chocolatey chunks" have more sugar and hydrogenated palm kernel oil than any other ingredient.

Granola: On a Roll

Chex, Raisin Bran, Special K, Quaker, Kashi, and Honey Bunches of Oats. Everyone's getting into the granola business.

Only trouble: granolas are calorie-dense, and some don't deserve their health halo.

"Delicious nutritious taste-tempting crunchy granola," says Kashi Organic Promise Cranberry, Spelt and Flax



For a decent granola, check out our Best Bites from Back to Nature, Bear Naked, Engine 2 Plant-Strong, and Kind.

Or try muesli, which Alpen calls "granola's fit and Swiss cousin." Unlike with granolas, we had no trouble finding no-sugar-added mueslis.



Nutritious? Not the $4\frac{1}{2}$ teaspoons of sugar.

Heart Healthy?

"Heart healthy," says Kellogg's Smart Start Original Antioxidants.

The fine print: "While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of heart disease."



Almost any cereal can call itself "heart healthy."

So Kellogg's claim (and

the heart on the box) just

means that Smart Start is low in sat fat and cholesterol...like nearly all cereals. Smart Start doesn't boast that it has enough soluble oat fiber to help lower cholesterol, like original Cheerios. It's not rich in wheat bran, which is linked to a lower risk of heart disease. (Smart Start's first ingredient is white rice.) And the vitamins C, E, and beta-carotene in Smart Start won't protect your heart.

You'll find the same sat-fat trick on cereals from General Mills (like Basic 4, Multi Grain Cheerios, and Raisin Nut Bran).

Anything to make a buck.



thing...or nothing.

The New Buzz

Nutritious, simple, wholesome. Companies love those claims because they don't mean anything.

Take Kellogg's Special K Nourish. It sounds healthier than other cereals, but is it?

 "Balanced carbs." "A carefully selected combination of fiber, whole grains and sugar, delivering

balanced carbs that help make your calories count," says the website. Translation: It's a sweetened part-wholegrain cereal.

• "Multi-grain flakes." The first ingredient is whole wheat, but the second is white rice.

 "With quinoa." Nourish Apple Raspberry Almond has more whole wheat, rice, oats, sugar, apples, almonds, corn syrup, and oat bran than guinoa...not that the slightly-higher-in-protein grain is such a superstar anyway.

Bottom line: Ignore the buzzwords...and check the ingredients.

Cereal Numbers

Best Bites (✓✓) have: 1) all or nearly all whole grains, 2) no more than 1½ teaspoons (light cereals) or 2½ teaspoons (heavy cereals) of sugar per serving (we waived the sugar limit for cereals with fruit before sugar in the ingredient list), 3) no acesulfame potassium, sucralose, or monk fruit extract, and 4) less than 3 grams of saturated fat per serving. Within each section, cereals are ranked from least to most sugar, then most to least fiber, least to most calories, and most to least protein.

	Lighter Cereals (about 1 oz. per serving)	Calorie	lotal S	Fiber	Proteii
	General Mills Fiber One Original (½ cup)	60	0 ^s	<u>≺</u> 14 [₽]	2
11	Kashi 7 Whole Grain Puffs (1 cup)	100	0	3	4
	General Mills Cheerios (GF) (1 cup)	100	0	3	3
	Trader Joe's Joe's O's (1 cup)	100	0		3
	Cascadian Farm Organic Purely O's (1¼ cups)	120	0	3	3
	Barbara's Organic Brown Rice Crisps (GF) (1 cup)	120	0	1	2
	365 Organic (Whole Foods) Bran Flakes (¾ cup)	100	0.5	5	4
	Love Grown Power O's Original (1 cup)	130	0.5	4	6
	Weetabix (2 biscuits)	130	0.5	4	4
	Nature's Path Organic Heritage O's (¾ cup)	120	0.5	3	4
	Nature's Path Organic Crispy Rice (GF) (¾ cup)	110	0.5	2	2
	Kellogg's Corn Flakes (1 cup) ^N	100	0.5	1	2
vv	Kellogg's All-Bran Complete Wheat				
	Flakes (¾ cup)	90	1	5	3
	Post Bran Flakes (¾ cup)	100	1	5	3
~~	Nature's Path Organic—Flax Plus Multibran Flakes, Heritage Flakes, or Multigrain	110	4	F	4
		110	1	5	4
	Nature's Path Organic Flax Plus Cinnamon (¾ cup)	120	1	4	3
vv	365 Organic (Whole Foods) Wheat Waffles (¾ cup)	100	1	3	3
	Post Grape-Nuts Flakes (¾ cup)	110	1	3	3
~~	General Mills—Total or Wheaties (¾ cup) ¹	110	1	3	2
	Nature's Path Organic Millet Rice (¾ cup)	120	1	3	4
VV	General Mills Cheerios + Ancient Grains (¾ cup)	110	1	2	3
	Kellogg's Special K Original (1 cup) ^N	120	1	0	6
	Nature's Path Organic Smart Bran (½ cup)	80	1.5	13 ^P	3
	Kellogg's All-Bran Original (½ cup)	80	1.5	10	4
	Trader Joe's Bran Flakes (¾ cup)	100	1.5	5	3
~~	365 (Whole Foods) Multi-Grain Morning O's (1 cup)	100	1.5	3 [₽]	3
vv	General Mills Multi Grain Cheerios (GF) (1 cup)	110	1.5	3	2
	Kellogg's Special K Protein (¾ cup)	120	1.5 ^s	3	10
vv	Barbara's Puffins Honey Rice (GF) (¾ cup)	120	1.5	3 [₽]	2
~~	Kashi Organic—Indigo Morning or Simply Maize (GF) (¾ cup) ¹	100	1.5	2	2
	Kellogg's All-Bran Buds (½ cup)	80	2	13ᢪ	3
	Kellogg's Special K Red Berries (1 cup) ^N	110	2	3₽	2
	General Mills Fruity Cheerios (¾ cup)	100	2	2	1
	General Mills Honey Nut Cheerios (GF) (¾ cup)	110	2	2	2
	General Mills Tiny Toast (¾ cup) ¹	120	2	1	2
	General Mills Cinnamon Chex (GF) (¾ cup) ^N	120	2	1	1
	Kellogg's Special K Fruit & Yogurt (¾ cup) ^{D,N}	120	2.5	3 ^P	2
	Kellogg's Jif PB&J Strawberry (¾ cup) ^{D,N}	100	2.5	2	1

Heavier Cereals (about 2 oz. per serving)

✓✓ Uncle Sam Original (¾ cup)	210	0	10	9
✓✓ Post Shredded Wheat Wheat'n Bran (1¼ cups)	200	0	9	6

BRAND-NAME RATING



	Ĉ	20	Ĩ,	م
✓✓ Post Shredded Wheat Original—Big Biscuit	170	0	6	6
(2 biscuits) or Spoon Size (1 cup) ¹	210	0.5	6	6
✓ Kashi 7 Whole Grain Nuggets (½ cup) ✓ Post Grape-Nuts (½ cup)	210	1	7	8
General Mills Wheat Chex (¾ cup)	160	1	6	5
✓ Engine 2 Plant-Strong (Whole Foods) Rip's	100		0	
Big Bowl (½ cup) ¹	210	1	6	6
✓✓ Kashi 7 Whole Grain Flakes (1 cup)	170	1.5	6 ^P	6
✓✓ Kashi GoLean Original (1¼ cups)	180	2	13 [₽]	12
General Mills Fiber One Honey Clusters (1 cup)	170	2 ^s	10	4
✓✓ Kashi GoLean Cinnamon Crisp (¾ cup)	180	2	9 [₽]	11
✓✓ Trader Joe's Organic High Fiber O's (1¼ cups)	180	2	9 [₽]	6
✓✓ Nature's Path Organic Optimum Power (¾ cup)	200	2	9 [₽]	9
✓✔ Cascadian Farm Organic Hearty Morning Fiber (¾ cup)	170	2	8 ^p	4
✓✓ Kashi Dark Cocoa Karma (31 biscuits)	180	2	6	8
✓ Kashi Organic—Autumn Wheat, Berry Fruitful,	100	2	0	
or Cinnamon Harvest (28-29 biscuits) ¹	180	2	6	6
✓✓ Kashi Organic Island Vanilla (27 biscuits)	190	2	6	6
✓✔ Kashi Organic Sprouted Grains (1¼ cups)	190	2	6	6
✓✓ Uncle Sam Skinner's Raisin Bran (1 cup)	200	2	6	7
✓✔ Kashi GoLean Clusters Vanilla Pepita (GF) (1 cup)	230	2	6	9
✓✔ Kellogg's Special K Gluten Free Touch of Brown Sugar (GF) (1 <i>cup</i>)	180	2	5°	3
✓✓ Quaker Oatmeal Squares—except Cinnamon (1 cup) ^{1,D}	210	2	5	6
✓✓ Quaker Oatmeal Squares Cinnamon (1 cup)	210	2	5	6
✓✓ Post Great Grains Crunchy Pecans (¾ cup)	210	2	5	5
✓✔ Kashi Organic Promise Sweet Potato Sunshine (1 cup)	190	2	4	4
✓✓ Kashi GoLean Toasted Berry Crisp (¾ cup)	190	2.5	8 ^P	9
✓✓ Post Great Grains Banana Nut Crunch (1 cup)	230	2.5	7	6
✓ Kellogg's Frosted Mini-Wheats Touch of Fruit in the Middle (24 biscuits) ^D	190	2.5	6	5
✓✓ Kellogg's Mini-Wheats Harvest Delights (27 biscuits) ¹	190	2.5	6	5
✓✓ Kellogg's Frosted Mini-Wheats—Little Bites Original (1 cup) or Original (21 biscuits) ¹	200	2.5	6	5
Kellogg's Special K Nourish (1 cup) ^{1,N}	200	2.5	5₽	5
✓✓ Barbara's Morning Oat Crunch Original (1 cup)	210	2.5	5	6
✓ Nature's Path Organic Flax Plus—Maple Pecan Crunch or Red Berry Crunch (¾ cup) ¹	220	2.5	5	6
Post Honey Bunches of Oats Whole Grain (1 cup) ^{1,N}	230	2.5	5	5
Kashi GoLean Crunch (¾ cup)	190	3	8 ^P	9
✓✔ Nature's Path Organic Flax Plus—Pumpkin Raisin Crunch or Raisin Bran (¾ cup) ¹	200	3	8	6
✓✓ Cascadian Farm Organic Raisin Bran (1 cup)	180	3	6 ^P	4
General Mills Basic 4 (1 cup) ^N	200	3	5	4
✓✓ Post Great Grains Raisins, Dates & Pecans (¾ cup)	210	3	5	4
Nature Valley Oat Bites (¾ cup) ¹	200	3	3	7
✓✓ 365 Organic (Whole Foods) Raisin Bran (1 cup)	180	3.5	6	4
General Mills Raisin Nut Bran (¾ cup)	180	3.5	6	4
Kellogg's Cracklin' Oat Bran (¾ cup) ^F	200	3.5	6	4
Nature Valley Oat Clusters (1 cup) ¹	230	3.5	4	7
Kellogg's Smart Start Original Antioxidants (1 cup) ^{p,N}	190	3.5	3	4
Quaker Real Medleys (¾ cup) ^{1,N}	240	3.5	3	5
✓✓ Trader Joe's Raisin Bran (1 cup)	170	4	8	4
			Ū	

			Calories Total Sugar (₁₇₂₎ Fiber (₃)		
		ies.	Suga,	0	Protein (g)
		C _{alor}	Total	Fibe,	Prote
vv	General Mills Total Raisin Bran (1 cup)	160	4	5	3
	General Mills Cheerios Protein (1¼ cups) ¹	220	4	4	7
VV	Trader Joe's Organic Raisin Bran Clusters (1 cup)	190	4.5	9 ^P	5
VV	Post Raisin Bran (1 cup)	190	4.5	8	5
vv	Kellogg's Raisin Bran (1 cup)	190	4.5	7	5
	Kellogg's Raisin Bran Crunch (1 cup) ^N	190	4.5	4	4
	Granola (about 2 oz. per serving)				
	Bear Naked Fit Triple Berry (½ cup)	240	1.5 ^s	6	6
v	Engine 2 Plant-Strong (Whole Foods) (½ cup) ¹	230	1.5	5	8
~~	Kind Healthy Grains—Banana Nut or Raspberry (GF) (½ cup) ¹	190	1.5	3	4
~~	Kind Healthy Grains—Dark Chocolate or Peanut Butter (GF) (½ cup) ¹	200	1.5	3	10
~~	Kind Healthy Grains—Cinnamon Oat, Oats & Honey, or Vanilla Blueberry (GF) (½ cup) ¹	210	2	7 ^P	5
~~	Back to Nature Gluten-Free—Cranberry Pecan or Vanilla Almond Agave (GF) (½ cup) ¹	190	2	6 ^P	4
vv	Bear Naked Fit V'nilla Almond (½ cup)	240	2	6	6
vv	Kellogg's Special K Touch of Honey (½ cup)	200	2	5₽	6
vv	Nature's Path Organic Peanut Butter (¾ cup)	260	2	4	7
vv	Bear Naked Honey Almond (½ cup)	300	2.5	6	12
vv	Back to Nature Clusters (½ cup) ¹	200	2.5	5₽	5
vv	Quaker Simply Oats, Honey & Almonds (½ cup)	200	2.5	5₽	5
~~	Nature's Path Organic Flax Plus—Pumpkin Flax or Vanilla Almond (¾ cup) ¹	260	2.5	5	6
vv	Kind Healthy Grains Maple Quinoa (GF) (½ cup)	190	2.5	4	4
~~	Back to Nature Gluten-Free—except Cranberry Pecan or Vanilla Almond Agave (GF) (½ cup) ¹	210	2.5	3	5
	Quaker Real Medleys SuperGrains (½ cup) ¹	230	3	4	5
	Post Honey Bunches of Oats Honey Roasted (½ cup)	220	3	3	4
vv	Kellogg's Raisin Bran Raisin & Honey (⅔ cup)	200	3.5	6 ^P	4
	Quaker Real Medleys (¾ cup) ¹	240	3.5	4	6
	General Mills Gluten Free Chex (GF) (⅔ cup) ¹	270	3.5	4	5
	Kellogg's Raisin Bran Cranberry Almond (⅔ cup)	200	4	6 ^P	4
	Kashi Organic Promise Cranberry, Spelt and Flax (3 cup)	220	4.5	6 ^P	6
	Muesli (about 2 oz. per serving)				
	Kashi Overnight Muesli (1 container) ¹	230	1.5	8	8
	Kellogg's Origins (½ cup) ¹	180	2	6	5
	Alpen (⅔ cup) ¹	210	2	6	7
	Bob's Red Mill Gluten Free (GF) (½ cup)	240	2	6	8
	Bob's Red Mill Old Country Style (½ cup)	220	2.5	8	8
VV	365 (Whole Foods) Fruit & Nut (½ cup)	230	2.5	7	6
	And Post Pite 1 Average (CD) Cluten free PC	ontain	food	duca	

✓ Best Bite. ¹ Average. (GF) Gluten-free. ^D Contains food dyes.
 ^F Contains at least 3 grams of saturated fat. ^N Not all whole grain.
 ^P Includes added processed fiber. ^S Contains acesulfame potassium, sucralose, or monk fruit extract.

Daily Limits (for a 2,000-calorie diet): Saturated Fat: 20 grams. Added Sugar: 6 teaspoons (25 grams) for women, 9 teaspoons (38 grams) for men. (To convert teaspoons of sugar to grams, multiply by 4.2.)

Daily Targets (for a 2,000-calorie diet): Fiber: at least 28 grams. Protein: 75 grams.

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



Let 'er Rip

No doubt about it. Cow's milk gives you a nice dose of protein and calcium for not too many calories and, if you go for 1% or fat-free, little or no saturated fat.

But not everyone's a fan. One reason: eating plants instead of animal foods can help curb climate change.

If you're looking for protein, forget about almond, coconut, or cashew milk. A cup is unlikely to supply more than 1 gram. Cow's milk has 8 grams. So does soy

milk. But its slightly "beany" taste isn't always a crowd pleaser.

Enter Ripple. The creamy new non-dairy milk is made with pea protein. And it's a dead ringer for cow's milk. You could probably make a milk moustache with it.

A cup of the Original Unsweetened has 8 grams of protein, no sugar, and just 80 calories. It's got about the same vitamin D as cow's milk (30 percent of the Daily Value) and more calcium (45 percent of the DV, though the 30 percent in cow's milk is plenty).

A cup of the Original (100 calories) has just 11/2 teaspoons of added sugar. That may help explain why it tastes so much like cow's milk, which has naturally occurring sugar.

You can find the Original and the Unsweetened at many Targets and Whole Foods. Ripple gives a whole new meaning to "eat your peas."

DISH of the month



Broccoli Smoked Almondine Steam 4 cups of broccoli florets until tender-crisp, 2-3 minutes. Allow to cool while you whisk together 1 Tbs. lemon juice, 1 Tbs. extra-virgin olive oil, and ¼ tsp. kosher salt. Toss with the broccoli. Top with ¼ cup chopped smoked almonds. Serves 4.

FOOD PORN

Loaded

"Boneless wings smothered in white queso, 3-cheese blend. applewood smoked bacon



& chopped green onions. Served with a side of housemade ranch."

What took Chili's so long to add Loaded Boneless

Wings to its appetizer menu? The chain already sells breaded or battered deep-fried pickles, cheese, onions, and asparagus. And if you can load potatoes with cheese and bacon, why not fried chicken? Chili's creative geniuses are on a roll.

Each platter of cheese-drenched chicken balls delivers 1,450 calories, 30 grams of saturated fat (11/2 days' worth), and 3,670 milligrams of sodium (a two-day supply).

Sharing? It's like divvying up five Chili's Beef Enchiladas...before your entrée arrives. That should whet your appetite for a 1,000calorie Ultimate Bacon Burger or Smothered Prime Rib Burrito or Full Rack of Baby Back Ribs. (Never mind the sides and drinks and dessert.)

Chili's guarantee: You'll waddle

out as loaded as the wings ... or your money (but not your waistline) back.

chilis.com-(972) 980-9917

ripplefoods.com-(888) 206-1664

quick tip

The fastest and safest way to thaw frozen fish if you're in a hurry: put it in a zipper bag, push out as much air as possible, zip closed, submerge in a bowl of cold water, and weigh down with a plate.