

Vitamin D Goal Might Be Doubled for Older Adults

BY SHERRY BOSCHERT

SAN FRANCISCO — The first update in recommendations for dietary intake of vitamin D since 1997 is expected in May, and is likely to endorse a conservative change from the status quo, one expert predicted.

The Institute of Medicine's Food and Nutrition Board has been reviewing the literature, including consideration of associations between serum vitamin D levels and disease indicators. "The grapevine says they are going to come in very conservative. They are going to require evidence from randomized, controlled trials, and those don't really exist today," Dr. Neil Binkley said at a meeting sponsored by the American Diabetes Association.

The current Dietary Reference Intake (or Recommended Dietary Allowance) defines "adequate" intake as 200 IU/day for people up to age 50 years, 400 IU/day for those aged 51-70 years, and 600 IU/day for people older than 70 years.

Dr. Binkley, of the University of Wisconsin, Madison, expects the new intake recommendation for older adults to roughly double from 400 IU/day to 800 or maybe 1,000 IU/day.

"This will be an evolution," he said. "I think the next iteration coming out in May is going to be a step up, but it's probably not going to get us all the way there."

Recent data suggest that much higher daily intakes are needed to keep serum 25-hydroxyvitamin D levels (25[OH]D) in desired ranges, he explained. Generally, levels below 10 ng/mL indicate vitamin D deficiency, 10-30 ng/mL reflects vitamin D insufficiency, and a 25(OH)D level above 30 ng/mL is considered optimal.

Optimal levels may differ by bodily system, he noted. Serum 25(OH)D levels greater than 40 ng/mL may be best for bone health, while leg function appears to be better with levels above 38 ng/mL. A level above 36 ng/mL has been associated with reduced risk for colorectal cancer, and levels of 36-40 ng/mL have been linked to lower risk for periodontal disease.

One study calculated that 2,600 IU/day of vitamin D supplementation would be needed to ensure that 97.5% of older women have 25(OH)D levels at or above desirable levels (J. Nutr. 2006;136:1123-6). Other experts recommend that between 2,000 and 4,000 IU/day be consumed to reduce risks for cancer and autoimmune disease, Dr. Binkley said.

He aims for levels above 40 ng/mL in his patients to consistently hit targets above 30 ng/mL. As a rule of thumb, for each 1,000 IU of supplemental vitamin D₃, circulating 25(OH)D rises by about 6 ng/mL. For a patient with a serum 25(OH)D level of 20 ng/mL, taking 2,000 IU/day of vitamin D₃ would boost serum levels to about 32 ng/mL, and more than 3,000 IU/day

would be needed to reach 40 ng/mL.

People are unlikely to get adequate vitamin D from sunlight, and fortified foods contain about 40-100 IU per serving. "If we truly do need 1,000, 2,000, or 4,000 IU/day, that means you'd need to drink between 10 and 40 glasses of milk per day to get your vitamin D requirement" at current fortification levels, he said. "I'm hopeful that after the Institute of Medicine meets, food fortification will go up."

The American Academy of Pediatrics in 2008 recommended that children and adolescents get 400 IU/day of vitamin D, double the current Dietary Reference Intake. The National Osteoporosis Foundation recommends that people up to age 50 ingest 400-800 IU/day, and that adults aged 50 or older get 800-1,000 IU/day.

Observational studies suggest that low vitamin D levels are related to increased risk for diabetes. Several studies found that children who received vitamin D supplementation had a lower risk for type 1 diabetes, and the

Nurses Health Study found a link between low vitamin D status and higher risk for type 2 diabetes over 20 years of follow-up.

Two prospective studies with 36 patients each found no effect of vitamin D supplementation on diabetes risk, but these studies were too small, Dr. Binkley said. A post hoc analysis of a randomized, controlled trial of 800 IU/day of vitamin D for fracture prevention in 3,314 women over age 70 found no protective effect against development of type 2 diabetes, but compliance with vitamin D supplements was poor, he noted (Age Ageing 2009;38:606-9).

The Women's Health Study also found no reduction in risk for diabetes after a median 7-year follow-up in 33,951 women randomized to 1,000 mg/day of calcium plus 400 IU/day of vitamin D or placebo (Diabetes Care 2008;31:701-7). The vitamin D dose was too low, Dr. Binkley said, and the compliance rate was only around 60%.

"We need larger studies, with higher vitamin D doses," he said. ■

Disclosures: Dr. Binkley reported no relevant conflicts of interest.

'If we truly do need 1,000, 2,000, or 4,000 IU/day, that means you'd need to drink between 10 and 40 glasses of milk per day to get your vitamin D requirement.'

Internal Medicine News

Thanks For Making Us



Source: PERQ/HCI Focus® Medical/Surgical December 2009 Readership Summary; Internal Medicine Specialties Section, Tables 108 Projected Average Issue Readers

Internal Medicine News

President, IMNG Alan J. Imhoff

Editor in Chief Mary Jo M. Dales

Executive Editors Denise Fulton, Kathy Scarbeck

Managing Editor Calvin Pierce

Deputy Managing Editor Leanne Sullivan

Senior Editors Christina Chase, Kathryn DeMott, Lori Buckner Farmer, Joyce Frieden, Catherine Hackett, Keith Haglund, Gina L. Henderson, Sally Koch Kubetin, Teresa Lassman, Mark S. Lesney, Jane Salodof MacNeil, Catherine Cooper Nellist, Amy Pfeiffer, Terry Rudd, Elizabeth Wood

Associate Editors Felicia Rosenblatt Black, Therese Borden, Lorinda Bullock, Jay C. Cherniak, Richard Franki, Virginia Ingram-Wells, Jane Locastro, Renée Matthews, Carol Nicotera-Ward, Markette Smith

Reporters *Chicago:* Patrice Wendling; *Denver:* Bruce Jancin; *Germany:* Jennie Smith; *Los Angeles:* Betsy Bates; *Miami:* Damian McNamara; *Mid-Atlantic:* Michele G. Sullivan; *New England:* Diana Mahoney; *New York:* Mary Ellen Schneider; *Philadelphia:* Mitchel L. Zoler; *San Diego:* Doug Brunk; *San Francisco:* Sherry Boschert, Robert Finn; *Washington:* Alicia Ault, Jeff Evans, Elizabeth Mechcatie, Heidi Splete, Miriam E. Tucker, Kerri Wachter

Contributing Writers Christine Kilgore, Mary Ann Moon

Project Manager Susan D. Hite

Assignments Manager Megan Evans

Address Changes Fax change of address (with old mailing label) to 973-290-8245 or e-mail change to subs@elsevier.com

Reprints Call 240-221-2419

Editorial Offices 5635 Fishers Lane, Suite 6000, Rockville, MD 20852, 877-524-9336, imnews@elsevier.com

Director of Information Technology Doug Sullivan

Senior Systems Administrators Lee J. Unger, Kreg M. Williams

Systems Administrator/Application Support Peter Ayinde

Accounts Payable Coordinator Daniela Silva

Executive Director, Operations Jim Chicca

Director, Production/Manufacturing Yvonne Evans

Production Manager Judi Sheffer

Production Specialists Maria Aquino, Anthony Draper, Rebecca Slebodnik

Creative Director Louise A. Koenig

Design Supervisor Elizabeth Byrne Lobdell

Senior Designers Sarah L.G. Breden, Yenling Liu

Designer Lisa M. Marfori

Photo Editor Catherine Harrell

Sales Director, IMNG

Mark E. Altier, 973-290-8220, m.altier@elsevier.com

Sales Manager, Internal Medicine News

Phil Soufleris, 973-290-8224, p.soufleris@elsevier.com

National Account Managers

Kathleen Hiltz, 973-290-8219, k.hiltz@elsevier.com

Cathy McGill, 973-290-8221, c.mcgill@elsevier.com

Classified Sales Manager, IMNG

Robert Zwick 973-290-8226, fax 973-290-8250, r.zwick@elsevier.com

Advertising Offices

60 Columbia Rd., Bldg. B, 2nd fl., Morristown, NJ 07960, 973-290-8200, fax 973-290-8250

Sr. Program Manager, Customized Programs

Malika Wicks

Circulation Analyst Barbara Cavallaro,

973-290-8253, b.cavallaro@elsevier.com

Program/Marketing Manager Jennifer Eckert

Business Controller Dennis Quirk

Adv. Services Manager Joan Friedman

Manager, Administration/Conventions

Lynne Kalish

Receptionist Linda Wilson

INTERNAL MEDICINE NEWS is an independent newspaper that provides the practicing internist with timely and relevant news and commentary about clinical developments in the field and about the impact of health care policy on the specialty and the physician's practice.

The ideas and opinions expressed in INTERNAL MEDICINE NEWS do not necessarily reflect those of the Publisher. Elsevier Inc. will not assume responsibility for damages, loss, or claims of any kind arising from or related to the information contained in this publication, including any claims related to the products, drugs, or services mentioned herein.

POSTMASTER Send changes of address (with old mailing label) to INTERNAL MEDICINE NEWS Circulation, 60 Columbia Rd., Bldg. B, 2nd fl., Morristown, NJ 07960.

INTERNAL MEDICINE NEWS (ISSN 1097-8690) is published semimonthly by Elsevier Inc., 60 Columbia Rd., Bldg. B, 2nd fl., Morristown, NJ 07960, 973-290-8200, fax 973-290-8250. Subscription price is \$139.00 per year. Periodicals postage paid at Morristown, NJ, and additional offices.

Founding Publisher: Jack O. Scher
Founding Editor: William Rubin

©Copyright 2010, by Elsevier Inc.

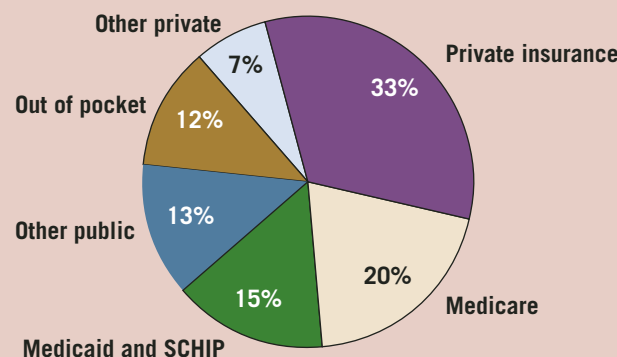


INTERNATIONAL MEDICAL NEWS GROUP



VITAL SIGNS

U.S. Health Care Dollar: Where It Came From in 2008



Notes: "Other public" includes workers' compensation, Department of Veterans Affairs, and state and local hospital subsidies. "Other private" includes privately funded construction and philanthropy.
Source: Centers for Medicare and Medicaid Services