

# Office of Dietary Supplements Update

National Institutes of Health,  
U.S. Department of Health and Human Services

## Special points of interest:

- Omega-3 Fatty Acid Evidence Reports released
- Elizabeth Yetley joins ODS
- ODS Presentations at Supply Side East
- Analytical Methods Update

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## Evidence Reports Confirm Benefits of Fish Oil

Fish oil can help reduce deaths from heart disease, according to new evidence reports announced last month by the Agency for Healthcare Research and Quality (AHRQ).

Evidence reports on the health effects of omega-3 fatty acids by the AHRQ-supported Evidence-Based Practice Centers (EPC) were sponsored by the Office of Dietary Supplements (ODS). ODS will work with other NIH Institutes to develop research agendas based on the findings in these reports. Five reports were released in April, and an additional six reports will be issued next year.

The systematic reviews of the available literature found evidence that long-chain omega-3 fatty acids reduce heart attack and other problems, re-

lated to heart and blood vessel disease in persons who already have cardiovascular disease, as well as their overall risk for death. Although, omega-3 fatty acids do not alter total, HDL-, or LDL-cholesterol, evidence does suggest that they can reduce levels of triglycerides — a fat in the blood that may contribute to heart disease.

The review also found other evidence indicating that fish oil can help lower high blood pressure slightly, may reduce risk of re-blockage of the coronary artery after angioplasty, may increase exercise capability among patients with clogged arteries, and may possibly reduce the risk of irregular heart beats — particularly in individuals with a recent heart attack.

Paul Coates, Ph.D., Director of the Office of Dietary Supplements, said, “The reports describe some positive findings as well as a number of areas where the data are insufficient to draw conclusions about the efficacy and safety of omega-3 fatty acids. The ODS, in collaboration with other NIH Institutes, will use these reports to develop appropriate research agendas for omega-3 fatty acids that will fill these gaps in knowledge.”

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## Elizabeth Yetley, PhD Joins ODS Staff

The Office of Dietary Supplements welcomes Dr. Elizabeth Yetley as a Senior Nutrition Science Advisor. In this position, Dr. Yetley will be responsible for providing leadership to the Office’s dietary supplement and health promotion/disease prevention program initiatives.

Dr. Yetley was formerly with

the Food and Drug Administration (FDA) for 24 years. In 1980, she started as a Senior Staff Fellow and rose to Lead Scientist for Nutrition, Office of Science from 2001-2004.

In 1995, Dr. Yetley was the first person from the FDA Center for Food Safety and Applied Nutrition to be appointed a Senior Biomedical

Research Scientist (SBRS). The SBRS is designed to provide a mechanism for attracting and keeping scientists who are considered by their peers to be at the top of their scientific disciplines in terms of scientific leadership and excellence. The number of SBRS scientists is very limited.

ODS looks forward to her expertise on multiple programs.

## Omega-3 Evidence Base Review (cont.)

Other findings from the AHRQ evidence reports indicate that:

- Omega-3 fatty acids do not affect fasting blood sugar or glycosylated hemoglobin in people with type II diabetes, nor do they appear to affect plasma insulin levels or insulin resistance.
- Alpha-linolenic acid (ALA), a type of omega-3 fatty acid from plants such as flaxseed, soybeans and walnuts, may help reduce deaths from heart disease, but to a much lesser extent than fish oil.
- Based on the evidence to

date, it is not possible to conclude whether omega-3 fatty acids help improve respiratory outcomes in children and adults who have asthma.

- Omega-3 fatty acids appear to have mixed effects on people with inflammatory bowel disease, kidney disease and osteoporosis, and no discernible effect on rheumatoid arthritis.

The evidence reports and EPC's that produced them are: *Effects of Omega-3 Fatty Acids on Cardiovascular Disease*, *Effects of Omega-3 Fatty Acids on Cardiovascular Risk Factors and Intermediate*

*Markers for Cardiovascular Disease, and Effects of Omega-3 Fatty Acids on Arrhythmogenic Mechanisms in Animal and Isolated Organ/Culture Studies* (Tufts-New England Medical Center EPC, Boston); *Health Effects of Omega-3 Fatty Acids on Asthma* (University of Ottawa EPC, Ottawa, Ontario); *Health Effects of Omega-3 Fatty Acids on Lipids and Glycemic Control in Type II Diabetes and the Metabolic Syndrome, and on Inflammatory Bowel Disease, Rheumatoid Arthritis, Renal Disease, Systemic Lupus Erythematosus, and Osteoporosis* (Southern California-RAND EPC, Santa Monica).

Summaries of evidence reviews are available on the AHRQ Web site at [www.ahrq.gov/clinic/epcindex.htm#dietsup](http://www.ahrq.gov/clinic/epcindex.htm#dietsup). Free copies are also available from the AHRQ Clearinghouse, 1-800-358-9295 or emailing [ahrqpubs@ahrq.gov](mailto:ahrqpubs@ahrq.gov).

You can also link to the reports on the AHRQ Web site from the ODS Web site at <http://ods.od.nih.gov>.

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## Databases

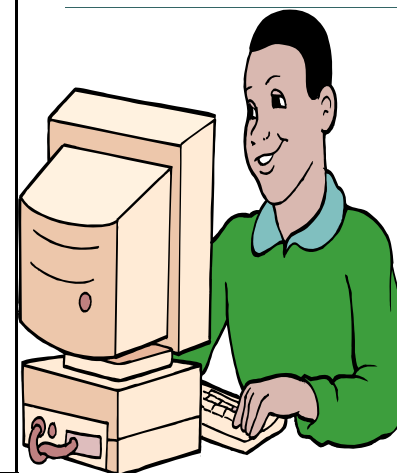
### Coming Soon:

### A New Look for the IBIDS Database

New Features include:

- Redesigned homepage
- Image Gallery of herbals, botanicals and other ingredients
- Easier search tools
- Downloadable citations into Endnotes Reference Manager Programs

*Watch for the launch announcement....*



## Analytical Methods Program Update

Joseph Betz, PhD., Director of the Analytical Methods Program at ODS will be speaking at the **Forum on Critical Need for Pharmacognosy in Pharmacy Curricula** on the "Need for Analytical Methods," July 31 in Phoenix, Arizona.

The forum is held in conjunction with the International Congress on Natural Products Research (ICNPR), being hosted by the American Society of Pharmacognosy (ASP) and

co-sponsored by the ODS of the National Institutes of Health.

The primary focus of this forum is to highlight the challenges facing pharmacognosy as an independent discipline with specific attention given to pharmacognosy as it is applied to the development of traditional and modern herbal drugs. Highlighted will be factors contributing to the demise of pharmacognosy in recent

years and proposed solutions for ensuring its continuance into the future. In addition to the conference, the challenges and solutions presented will be synopsisized for articles to be submitted to various journals and academic institutes with action plans for preserving pharmacognosy as an independent discipline.

### **Other Upcoming Meetings:**

"Analytical Challenges of Traditional Chinese Medicine," AOAC Annual Meeting, St. Louis, MO, September 2004.

## Dietary Supplement Presentations at Supply Side East

The Office of Dietary Supplements participated in several symposia at the Supply Side East meeting in Baltimore on May 5-7. Supply Side has two meetings a year, one on the East coast in the Spring and other on the West coast in the Fall. The Supply Side meetings are the world's largest trade shows and conferences focusing on the manufacturing and production of nutraceuticals.

On Wednesday May 5, Dr. Paul Coates, Director of the Office of Dietary Supplements, shared the Office's Five-Year Strategic Plan for 2004-2009. Dr. Coates discussed the challenges in investigating the

benefits, and potential harms, of dietary supplements in chronic disease prevention and health promotion.

Dr. Leila Saldanha, Senior Scientific Consultant to the ODS, and Dr. Joseph Betz, were co-chairs of a session entitled, "NIH's Analytical Methods and Reference Materials Program for Dietary Supplements: Part 1." The talk focused on the current status of federally-funded efforts to develop analytical methods and reference materials for dietary supplement manufacturers and raw materials suppliers. Part 1 provided an overview of the program, discussed key elements about

the Food and Drug Administration (FDA)/Association of Analytical Chemists (AOAC) and National Institute of Standards and Technology (NIST) contracts for development of analytical methods standard reference materials, the implementation of these contracts and the National Center for Complementary and Alternative Medicine (NCCAM) policy on characterization of raw materials for clinical trials.

In addition, Dr's Saldanha and Betz helped to organize a symposium, "Omega-3 Fatty Acids and Cardiovascular Disease," with Dr. Joseph Lau, an internist and professor of medicine at the Institute

for Clinical Research and Health Policy Studies at the Tufts-New England Medical Center Hospital. He is also Director of the AHRQ EPC program. Dr. Lau provided a comprehensive assessment of all the relevant research on omega-3 fatty acids as it relates to cardiovascular disease.

See "Publications" section below for how to obtain a copy of the *Omega-3 report*.

## Calendar

### Exhibits

**June 27-29, American Nurses Association,** Minneapolis

**July 17-18, National Nutritional Foods Association,** Las Vegas

**Sept 29—Oct 1, Supply Side West,** Las Vegas

**Oct 2-5, American Dietetic Association,** Anaheim

### Symposia Calendar

**June 28-30, NIH Consensus Development Conference on Celiac Disease (NIDDK)** — Natcher Conference Center (Bldg 45). <http://consensus.nih.gov>

**July 31, 7:00am-5:00pm, Forum on Critical Need for Pharmacognosy in Pharmacy Curricula,** International Congress on Natural Products Research, Phoenix, AZ. <http://www.phcog.org/AnnualMtg/Symposia.html>

**Sept 19-23, "Analytical Challenges of Traditional Chinese Medicine,"** AOAC Annual Meeting, St. Louis, MO. <http://www.aoac.org/meetings1/main.html>



## Publications

New publications are currently available on the ODS Web site at <http://ods.od.nih.gov>.

-Omega-3 Fatty Acid Evidence-Based Review Reports. [http://ods.od.nih.gov/Headlines/Omega-3\\_AHRQ\\_Reports.aspx](http://ods.od.nih.gov/Headlines/Omega-3_AHRQ_Reports.aspx)

-"Executive Summary: Conference on Dietary Supplement Use in the Elderly — Proceedings of the Conference Held January 14-15, 2003, Natcher

Auditorium, National Institutes of Health, Bethesda, MD," *Nutrition Reviews*, April 2004; 62 (4): 160-175 Suppl. [http://ods.od.nih.gov/News/conferences\\_and\\_workshops.aspx](http://ods.od.nih.gov/News/conferences_and_workshops.aspx)

-Carnitine Conference Powerpoint presentations, March 24-25, 2004. <http://ods.od.nih.gov/News/Conferences/carnitine2004/agenda.htm>

Other recently released publications include:

-Saldanha, L, Betz, J, Coates, P. "Development of the Analytical Methods and Reference Materials Program for Dietary Supplements at the National Institute of Health," *Journal of the AOAC International*, vol. 87, no. 1, 2004.

-New data on dietary supplements from the Third National Health and Nutrition Examination Survey (NHANES III) was released at the 2004 Experimental Biology meeting in Washington, D.C., April 17-21. For more information, go to <http://www.faseb.org/meetings/eb2004/>



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### Upcoming Features and Announcements

#### **Next Issue:**

- **A New Look for IBIDS**
- **Updates to ODS Website**
- **New Vitamin and Mineral Fact Sheets**
- **Carnitine Conference Summary Report**
- **Strategic Plan Update**

#### **Evidence-Based Review Program** (cont. from page 2...)

In language supporting the ODS budget appropriation for fiscal year 2001, the United States Senate encouraged ODS, in consultation with the National Center for Complementary and Alternative Medicine (NCCAM), AHRQ, and FDA to review the current scientific evidence on the safety and efficacy of dietary supplements now on the market which could then form a basis for further research.

ODS responded by developing an evidence-based review program, using the AHRQ EPC program to conduct sys-

tematic reviews of the scientific literature. ODS will use these reviews to help NIH establish research agendas for dietary supplements.

ODS and NCCAM commissioned together an evidence based report on ephedra, which was completed and released in February 2003.

In addition, AHRQ has developed several other nutrition-related evidence-based reports, including:

- Nutrition and Complementary and Alternative Dietary Supplements.
- S-Adenosyl-L-Methionine (SAME)

- Antioxidant Supplements for Cancer
- Antioxidant Supplements for Cardiovascular Disease
- Garlic, Cardiovascular Disease
- Milk Thistle Effects

These reports can be downloaded from <http://www.ahrq.gov/clinic/epcquick.htm>.

For more information on the ODS Evidence-Based Review Program, please visit the ODS Web site at <http://ods.od.nih.gov>.