

**CONFERENCE REPORT**

**ESC: Healthy Heart Helpers Get Buffeted at Cardiology Mee**

By Peggy Peck, Senior Editor, MedPage Today

Reviewed by Zalman S. Agus, MD; Emeritus Professor at the University of Pennsylvania School of Medicine.

September 05, 2005

HOME/LATEST HEADLINES

NEWS BY SPECIALTY

2005 Meeting Coverage ▼

- AAAAI Meeting
- AACR Meeting
- AAD Meeting
- AAN Meeting
- ACC Meeting
- ACOG Meeting
- ADA Meeting
- APA Meeting
- ASA Meeting
- ASCO Meeting
- ATS Meeting
- AUA Meeting
- DDW Meeting
- ESC Meeting
- ESHRE Meeting
- IAS Meeting
- NCCN Meeting
- SIR Meeting
- Additional Meetings

- Allergy & Immunology ▶
- Cardiovascular ▶
- Dermatology ▶
- Endocrinology ▶
- Gastroenterology ▶
- Hematology/Oncology ▶
- Infectious Disease ▶
- Nephrology ▶
- Neurology ▶
- OB/GYN ▶
- Pediatrics ▶
- Primary Care ▶
- Product Alert ▶
- Psychiatry ▶

**MedPage Today Action Points**

- These studies found no benefit for vitamin B to prevent heart attacks.
- Advise interested patients that according to this preliminary study homocysteine does not appear to be a reliable biomarker for cardiovascular risk.
- Tell patients that while omega-3-fatty acid did not demonstrate a significant benefit for patients with implanted cardioverter defibrillators, there was no evidence that it is harmful.
- These studies were published as an abstract and presented orally as late-breaking reports at a conference. These data and conclusions should be considered to be preliminary as they have not yet been reviewed and published in a peer-reviewed publication.

**Review**

STOCKHOLM, Sept. 5—High-dose vitamin B may do more harm than good for heart disease, and homocysteine, billed as a heart disease risk factor, isn't one after all, researchers reported here today.

"The homocysteine hypothesis is dead," declared Kaare Bonna, M.D., of the University of Tromso in Trondheim, Norway. In terms of heart disease risk, "homocysteine is an innocent bystander," he said at the European Society of Cardiology Congress 2005.

And that wasn't the only bad news for believers in simple helpers in heart disease and prevention. Fish oil capsules did not reduce cardiac events in patients with implanted cardioverter defibrillators (ICDs), a team of Dutch researchers reported.

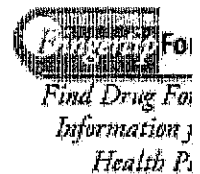
In the vitamin B-homocysteine arena, Dr. Bonna and colleagues enrolled 3,749 myocardial infarction patients in the Norwegian Vitamin Trial (NORVIT). Patients were randomized to high dose vitamin B, high dose folic acid, or placebo for up to three years.

As expected the high doses of vitamin B lowered circulating homocysteine by 30%, but rather than decreasing heart attack

**CME SPOTLIGHT**

What's this?

**RESOURCES**



- [Public Health & Policy ▶](#)
- [Pulmonary ▶](#)
- [Radiology ▶](#)
- [Rheumatology ▶](#)
- [Surgery ▶](#)

- [NEW USERS: REGISTER HERE](#)
- [RETURNING USERS: LOG IN](#)
- [UPDATE YOUR PROFILE](#)
- [CME TRACKER](#)

- [ABOUT MEDPAGE TODAY](#)
- [HELP CENTER](#)

risk, "there was a 20% increase in risk of cardiovascular events," Dr. Bonaa said.

In the past high levels of homocysteine have been associated with heart disease, but attempts to treat the patients by lowering levels of the hormone, especially with folic acid and other B vitamins have had disappointing outcomes.

In NORVIT, the participants took doses of 40 mg of Vitamin B-6 or 0.8 mg of folic acid per day. Dr. Bonaa said that the doses are prescribed at that level in Europe and represent two tablets of the vitamins that are sold-over-the-counter in the United States.

He said that the risk of suffering heart attacks or strokes was no different if the patient was taking either vitamin or placebo. However, patients taking both vitamins had about a 20% increased risk of having a heart attack or stroke (IP=0.029).

In addition there was a non significant trend for an increased risk of cancer among those on the high doses of vitamins.

"The results of the NORVIT trial are important because they tell doctors that prescribing high doses of B vitamins will not prevent heart disease or stroke." Dr. Bonaa said. "B vitamins should be prescribed only to patients who have B-vitamin deficiency diseases."

He noted that in the trial measurements of homocysteine were made before and during treatment and showed that the vitamins dramatically reduced levels of homocysteine. However, the lowering effect did not translate into a clinical benefit.

Raymond Gibbons M.D., professor of medicine at the Mayo Clinic, who is president-elect of the American Heart Association, was not surprised by the negative results for vitamin B. "Taking something with no proven beneficial effect is a bad idea," he said.

He said that in addition to possible harm that could occur to the person taking such substances as vitamins, taking the substances "wastes resources and most patients can only take so many pills." Moreover, he boasted that in his career in cardiology, he has "never ordered a homocysteine test.

But others said it is too early to count out either vitamin B or homocysteine. For example, Lampros Michalis, M.D., of the University of Ioannina, Greece, who moderated a press conference where the study was discussed, said "every time we have tried to find a connection between homocysteine and lowering it with vitamins we never find anything. But it [homocysteine] is so appealing that a natural substance such as a vitamin that can reduce homocysteine levels that investigators will again try to see if there is a connection."

In the second study, which was also presented at today's late-breaking clinical trials session, researchers with the Study on Omega-3 Fatty acid and ventricular Arrhythmia (SOFA) reported that omega-3 fatty acids contained in fish oil capsules reduced arrhythmias by 15% in patients with implanted cardioverter defibrillators, as measured by the firing of the devices, but that reduction was not statistically significant.

Ingeborg Brouwer, Ph.D., project manager at the Wageningen

Center for Food Sciences in The Netherlands, said, "The SOFA trial does not indicate a strong beneficial effect of n-3 polyunsaturated fatty acids from fish on life-threatening cardiac arrhythmia."

But she said that patients with a history of myocardial infarction "may still benefit from fish oil." Dr. Brouwer said that in investigating subgroups in the trial she noticed that patients who had a previous MI appeared to show a trend toward a protective effect ( $p=.086$ ). She said that group of patients might be subjects for another trial.

But even if fish oil didn't help, she said the study confirmed that it doesn't hurt either.

The researchers enrolled 546 patients and randomized 273 subjects to receive fish oil while the other 273 received a common cooking oil with no known cardiac effects, Dr. Brouwer said. After 12 months of monitoring 30% of the patients taking fish oil had experienced a heart attack or stroke compared with 33% of those taking the placebo oil. That difference was not significant ( $P=0.24$ ).

**Primary source:** European Society of Cardiology Congress 2005

**Source reference:**

Hot Line II Bonna K.H. "NORVIT: Randomized trial of homocysteine-lowering B-vitamins for secondary prevention of cardiovascular disease after acute myocardial infarction"  
Brouwer IA "SOFA: Study on Omega-3 Fatty acid and ventricular arrhythmia"

---

**Disclaimer**

[top](#)

[Privacy](#) | [Terms of use](#) | [Sitemap](#) | [Contact us](#)

© 2004-5 MedPage Today, LLC. All Rights Reserved.