# FDA: Ibuprofen Blocks Aspirin's Cardioprotection

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Concerns that nonsteroidal anti-inflammatory drugs can interfere with aspirin's cardioprotective effects received new attention following a Food and Drug Administration warning about concomitant use of low-dose aspirin and ibuprofen.

Ibuprofen can interfere with aspirin's antiplatelet effects, according to a statement issued by the Food and Drug Administration's arm responsible for compiling adverse drug events.

"Platelet function tests suggest there is a pharmacodynamic interaction between 400 mg of ibuprofen and low-dose aspirin when they are dosed concomitantly," the FDA said in a paper posted on its MedWatch Web site in September.

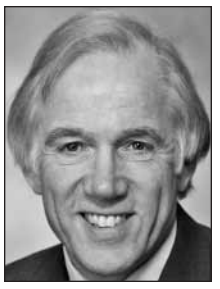
Experts stress, however, that although there may be fewer data on the other NSAIDs, "if physicians only pay attention to the FDA statement," they're likely to miss the potential effects of these other NSAIDs on aspirin's antiplatelet properties and focus only on ibuprofen, said rheumatologist Dr. Roy Altman, of the University of California, Los Angeles.

Nevertheless, clinical studies have yet to be conducted to evaluate and quantify the inhibitory effect of ibuprofen on aspirin. Not enough data are available to address the effect of taking less than 400 mg of ibuprofen on aspirin's cardioprotective benefits. Nor are there "clear data" on the potential antiplatelet effects associated with chronic use of ibuprofen at doses above 400 mg, the FDA said in the statement.

The FDA advised health care professionals to counsel patients taking immediate-release low-dose (81 mg) aspirin (not enteric coated) and 400 mg of ibuprofen to take the ibuprofen at least 8 hours before or at least 30 minutes after taking the aspirin, which can minimize the pharmacodynamic interaction.

The mechanism underlying the aspirin-ibuprofen interaction may be due to "competitive inhibition of the acetylation site of cyclooxygenase in the platelet," according to the FDA statement.

Occasional use of ibuprofen, the FDA said, is unlikely to have a negative impact on aspirin's cardioprotective effects because of the long-lasting effects of daily aspirin.



**Rather than timing dosages, 'I would feel more comfortable if we … avoid ibuprofen in high-risk patients.'**

**DR. GIBBONS**

In an interview, Dr. Raymond Gibbons, president of the American Heart Association (AHA), said that although the potential interaction between ibuprofen and aspirin has been recognized as a concern in the past, the FDA advisory is a useful reminder to health care professionals about this important issue.

These concerns are based on science that dates back to 2001, Dr. Gibbons said, adding that an AHA scientific advisory in the spring of 2005 on cyclooxygenase-2 inhibitors noted that data indicated ibuprofen interfered with aspirin, and could possibly reduce the protective effects of aspirin.

He emphasized the importance of the FDA's recommendation that analgesics that do not interfere with the antiplatelet effects of aspirin should be considered for high-risk patients. The data on ibuprofen are "far more suggestive of a problem" than, for example, data on acetaminophen or diclofenac, which are not associated with this risk, said Dr. Gibbons, who is the Albert M. and Gladys Gray professor of medicine at the Mayo Medical School, Rochester, Minn.

As for the recommendation on appropriate timing of ibuprofen and aspirin to avoid the interaction, he said he would be "cautious" about relying on appropriate timing, "simply because we don't have a tremendous amount of evidence in the presence of all the confounders" in patients. "I would feel more comfortable if we emphasize the importance of this potential interaction and avoid ibuprofen in high-risk patients," Dr. Gibbons said.

Regarding cardiovascular health targets, a far greater problem is that the many candidates for aspirin are not taking it. ■

*The notice is on the FDA's MedWatch site at www.fda.gov/medwatch/safety/2006/safety06.htm#aspirin.*