

Acid Reflux Drugs May Up Fractures Osteoporosis Fractures May Be More Common in People Who Use Proton Pump Inhibitors for at Least 7 Years

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Aug. 11, 2008 -- Using acid reflux drugs called proton pump inhibitors for at least seven years may be linked to increased risk of osteoporosis-related fractures.

That news comes from a Canadian study of proton pump inhibitors (PPIs) and osteoporosis-related fractures. PPIs are a class of drugs that include Aciphex, Nexium, Prevacid, Prilosec, and Protonix

The study shows a link between long-term use of proton pump inhibitors and greater likelihood of osteoporosis-related fractures of the hip, wrist, or spine.

But that association took years to appear, and the study doesn't prove that PPIs were to blame for any fractures. Makers of PPIs tell WebMD they haven't seen any signs of increased osteoporosis-related fracture risk in people using their products.

More research is needed; meanwhile, patients and their doctors should revisit the risks and benefits of long-term PPI use, according to an editorial published with the study in the Canadian Medical Association's journal, *CMAJ*.

PPIs and Osteoporosis Fractures

The study included 63,000 adults aged 50 and older in Manitoba, Canada, including nearly 15,300 who sustained an osteoporosis-related fracture of the hip, spine, or wrist from 1996 to 2004.

The researchers -- who included the University of Manitoba's Laura Targownik, MD, MSHS -- checked participants' prescription records.

People who suffered an osteoporosis-related fracture were almost twice as likely to have used a PPI for at least seven years. Using PPIs for six or fewer years wasn't linked to fracture risk.

Hip fracture risk may have started earlier. People with hip fractures were 62% more likely to have used a PPI for at least five years. Briefer use of PPIs wasn't associated with hip fracture risk.

It's not clear how PPIs might increase fracture risk, but it may be that by inhibiting stomach acid, PPIs speed up bone mineral loss, Targownik's team speculates. But the study doesn't prove that.

The researchers considered many factors, including participants' other prescriptions, medical history, and income. Still, they can't rule out the possibility that they missed other influences.

Benefits of PPIs vs. Risks

Long-term PPI use and fracture risk have been linked in previous research.

That association "is certainly a strong basis for encouraging further investigation," write the editorialists, who included J. Brent Richards, MD, of Canada's McGill University.

What are patients to do in the meantime? Talk to their doctors, the editorialists suggest.

"Certainly, at one extreme, such as in patients with bleeding ulcers, the beneficial effects may far outweigh the risks associated with fractures," the editorial states. "At the other extreme, liberal prescription of proton pump inhibitors for nebulous disorders for extended periods of time is likely worth revisiting."

Drugmakers Respond

Targownik's study doesn't specify which PPIs the patients took. So WebMD contacted the makers of all prescription brand-name PPIs in the U.S. -- Aciphex, Nexium, Prevacid, Prilosec, and Protonix -- for their feedback on the study.

Drugmakers Respond continued...

The drug company AstraZeneca makes Nexium. "AstraZeneca does not agree with the conclusion of the CMAJ study," states AstraZeneca spokeswoman Corey Windett in an email to WebMD. She says Nexium's safety and efficacy have been "consistently demonstrated." Windett says AstraZeneca also notes the study's limits and agrees with the editorialists that further research is needed and that patients and doctors should "weigh the proven benefits of these medications against any potential risks." Patients should talk to their doctors if they have concerns about bone health while taking Nexium or any other PPI, says Windett.

Judee Shuler, senior director of corporate communications for Eisai Inc., which makes Aciphex, states that the Canadian results "warrant further study, as these fractures are important medical issues that can occur for a variety of reasons. Our clinical trial data have not shown an increased risk of osteoporosis-related fractures in patients taking [Aciphex] tablets, nor have our post-marketing data suggested such an association, but we will continue to monitor our adverse event database."

The other PPI drugmakers didn't respond before deadline.

WebMD also contacted the Pharmaceutical Research and Manufacturers of America (PhRMA), which declined to comment on the study.

For additional information on safety issues and PPIs, please click [here](#) to read an article by Dr. Peura, Board member and professor of medicine at the University of Virginia Health Sciences Center.