

Drug prevents bone loss side effects of breast cancer medication

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A new study has found that an osteoporosis drug protects against the bone damaging side effects of certain breast cancer medications. Published early online in *Cancer*, a peer-reviewed journal of the American Cancer Society, the study indicates that some breast cancer patients could take zoledronic acid in addition to their anti-cancer medications to maintain bone health.

Drugs called aromatase inhibitors stop the production of estrogen in postmenopausal women and therefore make less estrogen available to stimulate the growth of certain [breast cancer cells](#). Many postmenopausal women with breast cancer are routinely treated for several years with these potentially life-saving drugs, but the agents can cause bone loss and fractures.

Adam Brufsky, MD, PhD, of the University of Pittsburgh Cancer Institute, and his colleagues conducted a study to see if the bone drug [zoledronic acid](#) could prevent and treat bone loss in postmenopausal [breast cancer patients](#). In their five-year study, called Z-FAST, 602 postmenopausal women with early breast cancer who were receiving the aromatase inhibitor letrozole were randomized to receive zoledronic acid simultaneously with letrozole or only after bone loss or fractures occurred.

The investigators observed significant and progressive increases in bone density throughout the five years of the study in women who initiated zoledronic acid at the start; in contrast, significant decreases in bone

density occurred when zoledronic acid administration was delayed until bone loss was apparent. Over time, though, the rate of bone density decline in the delayed group slowed, most likely because more delayed patients received zoledronic acid by the end of the study. These findings indicate that [bone density](#) is maintained more effectively with upfront zoledronic acid, but bone loss is likely reversible so that initiating zoledronic acid, even after bone loss has developed, is beneficial.

"This study shows that bone loss from aromatase inhibitors can be prevented long term with a safe and effective drug that prevents osteoporosis," said Dr. Brufsky. Zoledronic acid is currently approved by the U.S. Food and Drug Administration for conditions including osteoporosis and bone complications of cancer.

Provided by Wiley

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