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A New Treatment for Hot Flashes: Antidepressants

Women with breast cancer who suffer hot flashes now have a new option: widely used antidepressant drugs. In a large study presented at the 2000 annual meeting of the American Society of Clinical Oncology, venlafaxine (Effexor) substantially reduced hot flashes in 62 percent of women, and preliminary studies of three other antidepressants indicate similar promising results.

Many doctors hesitate prescribing hormone replacement therapy (HRT) -- which helps control hot flashes in menopausal women -- to women with a history of breast cancer, for fear that the estrogen or progesterone could stimulate cancer regrowth, said Charles Loprinzi, M.D., of the Mayo Clinic Cancer Center in Rochester, Minnesota. While the evidence is mixed about whether HRT does actually promote cancer recurrence, the perception is real, he added. [Editor's note: For up-to-date information about HRT, see [Digest Page: Menopausal Hormone Use](#) ⁵.)

That perception has led researchers to search for other ways to control hot flashes, which can be severe in women who have received chemotherapy. Chemotherapy drugs tend to damage the ovaries, which produce the female hormones, inducing early or more severe menopause-like symptoms.

To find another way to control hot flashes, the Mayo team tested several other agents, including vitamin E, without much luck. They began researching antidepressants eight years ago when another physician contacted them and with news that a patient's hot flashes had all but vanished. That patient was taking fluoxetine (Prozac).

Pilot tests of sertraline (Zoloft), fluoxetine, and venlafaxine, which are all chemically related and which researchers say work in similar ways, showed promise in reducing hot flashes, so Loprinzi decided to do a large, controlled clinical trial comparing venlafaxine to placebo. [Editor's note: The final results of this trial were subsequently published in the Dec. 16, 2000, issue of the Lancet; [see the journal abstract](#).)

Loprinzi's team enrolled 229 patients, giving them either the placebo or one of three doses of venlafaxine. The dose of 75 milligrams per day gave the best benefit-to-side effect profile, said Loprinzi, reducing a hot flash "score" by three quarters or more in 29 percent of women, and by half or more in 62 percent. The score accounted for both the number and severity of hot flashes each day.

Patients being treated for depression typically receive 150 milligrams of the drug per day, but this dose

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tended to elevate side effects without increasing the number of women helped. Common side effects reported included dry mouth, a drop in appetite, and temporary nausea. Other studies of velafaxine have identified a decrease in sexuality as a problem in women who took the drug, but Loprinzi said decreased sexual drive or other sexual side effects were not a problem in his study.

Amy Langer, president of the National Association of Breast Cancer Organizations, said the next step will be educating insurance companies about this new, serendipitous use of antidepressants. "We're going to have to find a way to get this paid for," she said.

And in fact, antidepressants may find a wider market for alleviating hot flashes based on Loprinzi's study. The drug could help women with hot flashes who do not want to take estrogen or progesterone for any reason, regardless of whether they are cancer patients, said Loprinzi. "All indications are that just because this works for breast cancer doesn't mean it works only in breast cancer patients."

When asked why the antidepressants alleviate hot flashes, Loprinzi said that both the biochemical cause of hot flashes and the route the drugs may work against them remain unknown.

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- 1 <http://cancer.gov/cancertopics/types/breast>
- 2 http://cancer.gov/clinical_trials/doc.aspx?viewid=334F80EF-F05E-4FC5-8EF6-01DAF41B5B2E
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