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### Mayo Clinic News Network

**Title:** Z-endoxifen shows promise as new treatment for common breast cancer type

**Date:** August 30, 2017

ROCHESTER, Minn. – [Z-endoxifen](#), a potent derivative of the drug [tamoxifen](#), could itself be a new treatment for the most common form of breast cancer in women with metastatic disease. This finding was reported from a clinical trial conducted by researchers at [Mayo Clinic](#) and the [National Cancer Institute](#), and published in the [Journal of Clinical Oncology](#).

The final results of a first-in-human phase I study of Z-endoxifen in women with [estrogen receptor positive metastatic breast cancer](#) showed that the treatment was safe and resulted in tumor shrinkage in women whose tumors had progressed on standard anti-estrogen therapies, including tamoxifen.

#### Video

#### Audio

<p>Title: Matthew Goetz, M.D. Medical Oncology Mayo Clinic</p>	<p>"So, tamoxifen works, but, clearly, we think that by increasing or providing more of this metabolite endoxifen, that the efficacy could be even greater. So, that was really the impetus to develop endoxifen as a drug. It was, again, based on the fact that when women take the drug tamoxifen, a proportion of those patients either genetically have low concentrations of endoxifen, or they actually might be taking a medication that interferes with the metabolism. So, for example, some antidepressants – other medications – interfere with that metabolism of CYP2D6, therefore, leading to very low concentrations of endoxifen. And there are some women that literally are doing quite well on their antidepressants and cannot go off of them. So, by providing a new drug, in this case, the metabolized form of tamoxifen, our goal was to see whether this metabolized form of tamoxifen called endoxifen could be either as good, or perhaps, our hypothesis was, that it would be better than tamoxifen, and specifically in those patients who just cannot make very much of the endoxifen."</p>
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