

## Medications that Treat Breast Cancer May Help Some Infertile Women

When couples have difficulty getting pregnant, it can be due to many different causes. In 20% of women, the problem may be related to polycystic ovarian syndrome (PCOS). To be diagnosed with PCOS, a woman must have at least 2 of the following: a menstrual cycle longer than 35 days, elevated levels of male hormones (diagnosed by either a lab test or symptoms), or many cysts on her ovaries (which can be seen with ultrasound).

When women with PCOS have difficulty getting pregnant, clomiphene (Clomid) is usually the first medication a physician prescribes, but it does not work for everyone. Clomiphene seems to work by blocking some effects of estrogen, which signals to the brain that additional hormones are needed. As more hormones are produced, the extra follicle-stimulating hormone (FSH) can cause a follicle to “ripen” and release an egg from the ovary (ovulation). All these processes must work in sync for a woman to get pregnant. Other hormone medications including FSH can be tried, but hormonal drugs require



injections and increase the risk of a multiple pregnancy (twins, triplets, or more).

Another group of drugs that directly inhibits estrogen formation is commonly used to treat breast cancer. One example is letrozole (Femara). As with clomiphene, letrozole causes a shortage of estrogen signals, which tell the brain that more hormones need to be produced. Recent investigations suggest that letrozole may be useful in some infertile women.

So far, a few studies have found that letrozole may help women with PCOS or other types of infertility get pregnant. In these studies, doses of letrozole ranged from 2.5 mg to 7.5 mg per day and the drug was usually taken for 5 days. Though the studies are relatively small, most found that letrozole stimulated ovulation in over half of the women who used the medication. However, not every woman who ovulated got pregnant, and the studies did not report the

### FOR MORE INFORMATION

American Society for Reproductive Medicine  
[asrm.org/Patients/faqs.html](http://asrm.org/Patients/faqs.html)

National Library of Medicine  
[nlm.nih.gov/medlineplus/infertility.html](http://nlm.nih.gov/medlineplus/infertility.html)

National Women's Health Information Center  
[girlshealth.gov/body/pcos/](http://girlshealth.gov/body/pcos/)

Based on “Aromatase Inhibitors for Ovulation and Pregnancy in Polycystic Ovary Syndrome” by Karen R Eckmann and Denise R Kockler, *The Annals of Pharmacotherapy*, July/August 2009, <http://dx.doi.org/10.1345/aph.1M096>. For Our Patients is provided by *The Annals* to help explain the latest research and information relating to your medications. These summaries are for informational purposes only and are not a substitute for professional advice from your personal medical provider. If you have questions about this material, you should discuss it with your physician or pharmacist. This summary may be reproduced without permission for not-for-profit educational purposes only. Any other use must be approved by the publisher. © Copyright 2009, Harvey Whitney Books Company, [hwbooks.com](http://hwbooks.com). FOPF21 DOI 10.1345/fop.1M096

number of successful pregnancies that were carried to full term.

In women who have failed to get pregnant with clomiphene, letrozole may be a reasonable option to try. The drug seems to have several advantages over hormonal medications: it does not need to be injected, it is less likely to result

in a multiple pregnancy, and it is considerably less expensive.

If your infertility is associated with PCOS, and you have not been successful getting pregnant with clomiphene, you may want to talk to your doctor about trying letrozole.