

LE Magazine March 2001

## REPORT

**More Bad News On  
Estrogen Drugs and  
Heart Health**

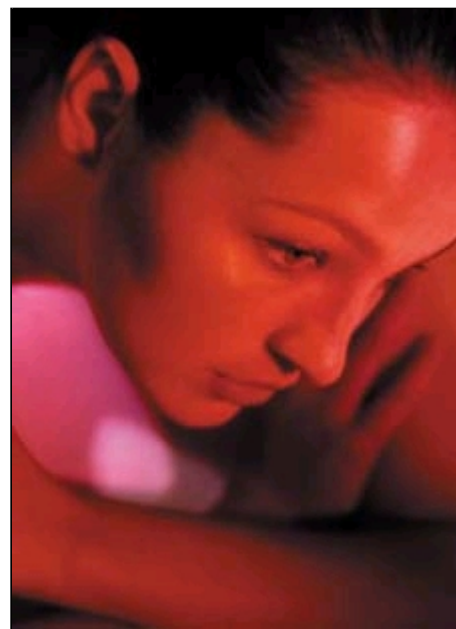
Heart disease is the number one cause of death in both men and women. Women worry about getting breast cancer, but heart disease is much more of a threat. One out of every two women will die of heart disease, while only one in 26 will die of breast cancer. Because heart disease is such a threat to women's health, it's imperative that they be aware of things that could have an impact on it. New studies point to certain estrogen drugs as being potent culprits in the development of heart disease in women.

Premarin, a synthetic estrogen drug made from horse urine, is one of the most widely-prescribed drugs ever. If you are a woman taking this drug, take note: new data shows that Premarin may have serious adverse effects on heart health. In the largest study of its kind ever done, Premarin (combined with a synthetic progestin drug) significantly increased the risk of heart attack in women with heart disease. It also caused the risk of getting a blood clot to skyrocket. The study was published in the Journal of the American Medical Association (JAMA) in 1998. Recent studies have been published that may help explain why this occurred.

**C-reactive protein**

C-reactive protein is one of four proteins associated with inflammation that can be used to predict heart attack risk. Elevations in it, or the amino acid homocysteine, indicate that a person has a greater chance of having a heart attack or stroke. It's desirable to keep both-homocysteine and C-reactive protein-as low as possible.

Two new studies show that Premarin drastically elevates C-reactive protein. Both studies show that within 6 to 12 months, Premarin causes C-reactive to shoot up 84% -85%. The elevation persists at three years (which is the longest the phenomenon has been studied). It makes no difference whether the drug is taken with progestins or whether it's taken on a cyclical basis. One of the studies used four different regimens, and it made no difference. These two studies are confirmed by at least two other published studies showing similar results.



Although it's clear that Premarin elevates C-reactive protein, it's not clear whether other types of synthetic estrogen also increase the protein. A study from the Netherlands finds that 2 mg. of micronised estradiol (with or without progestins) similarly increases C-reactive protein. However, a study on women with type II diabetes given transdermal estradiol with norethisterone showed significantly reduced C-reactive protein. And it's doubtful that natural estrogen itself would elevate the body's inflammatory proteins. French researchers found no elevations in C-reactive protein due to natural increases in estrogen caused by fertility drugs. So it doesn't appear that estrogen per se increases C-reactive protein, only certain types of synthetic estrogens (or their metabolites).

As part of the "acute phase response", C-reactive protein interacts with cells known as neutrophils. Neutrophils are a type of white blood cell found wherever inflammation is present. These "inflammatory cells" generate large amounts of oxidative stress as part of their role in defending the body against bacteria and viruses. C-reactive protein appears to activate neutrophils.

Documented conditions (in addition to heart disease) where C-reactive shows up are autoimmune disorders such as rheumatoid arthritis; pancreatitis; diabetes; cystic fibrosis; gastrointestinal cancer; and chronic renal failure. It is likely that most chronic diseases cause elevations in C-reactive protein.

C-reactive protein seems to cause depletion of important nutrients such as vitamins A, C, E and B6, plus carotenoids (lutein, lycopene, beta-carotene), zinc and selenium. These nutrients decline in the body when C-reactive protein goes up. It may be wise to replace these nutrients if you have a condition in which C-reactive protein may be activated.

C-reactive protein may be suppressed by taking aspirin, ibuprofen, vitamin E, DHEA, nettle leaf and fish oil. Avoiding some types of hormone replacement drugs would also appear to help prevent a pathological increase in C-reactive protein levels.

## References

Cushman M, et al. 1999. Effect of postmenopausal hormones on inflammation-sensitive proteins: the postmenopausal estrogen/progestin interventions (PEPI) study. *Circulation* 100:717-22.

de Valk-de Roo GW, et al. 1999. Both raloxifene and estrogen reduce major cardiovascular risk factors in healthy postmenopausal women: a 2-year, placebo-controlled study. *Arterioscler Thromb Vasc Biol* 19:2993-00.

Hulley S, et al. 1998. Randomized trial of estrogen plus progestin for secondary prevention of coronary heart disease in postmenopausal women. *JAMA* 280(7):605-13.

McMillan DC, et al. 2000. Changes in micronutrient concentrations following anti-inflammatory treatment in patients with gastrointestinal cancer. *Nutrition* 16:425-8.

Ricoux R, et al. 1994. [Plasma concentration of C-reactive protein in patients with high estrogen levels]. (Published in French). *Ann Biol Clin* 52:125-8.

Sattar N, et al. 1999. Hormone replacement therapy and sensitive C-reactive protein concentrations in women with type-2 diabetes [letter]. *Lancet* 354(9177):487-8.

van Baal WM, et al. 1999. Increased C-reactive protein levels during short-term hormone replacement therapy in healthy postmenopausal women. *Thromb Haemost* 81:925-8.

Walsh BW, et al. 2000. The effects of hormone replacement therapy and raloxifene on C-reactive protein and homocysteine in healthy postmenopausal women: a randomized, controlled trial. *J Clin Endocrinol Metab* 85:214-18.

Zanger D, et al. 2000. Divergent effects of hormone therapy on serum markers of inflammation in postmenopausal women with coronary artery disease on appropriate medical management. *J Am Coll Cardiol* 36:1797-802

---

[Back to the Magazine Forum](#)

All Contents Copyright © 1995-2009 Life Extension Foundation All rights reserved.

**LifeExtension**<sup>®</sup>

These statements have not been evaluated by the FDA. These products are not intended to diagnose, treat, cure or prevent any disease. The information provided on this site is for informational purposes only and is not intended as a substitute for advice from your physician or other health care professional or any information contained on or in any product label or packaging. You should not use the information on this site for diagnosis or treatment of any health problem or for prescription of any medication or other treatment. You should consult with a healthcare professional before starting any diet, exercise or supplementation program, before taking any medication, or if you have or suspect you might have a health problem. You should not stop taking any medication without first consulting your physician.