



Risk in Perspective

BREAST CANCER RISK FACTORS: WHAT DO WE KNOW AND HOW WELL DO WE KNOW IT?

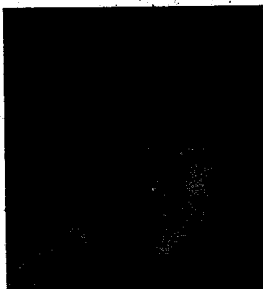
Lisa Green



Lorenz Rhomberg, Ph.D.

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Jae Hee Kang, SM

Breast cancer is a leading cause of cancer death among American women. Recent years have seen a large increase in public awareness of breast cancer issues, including research on potential causes and risk factors, mammography screening, and treatment options. The good news is that breast cancer mortality has begun to decline. According to the National Cancer Institute, the age-adjusted rate fell about 5% from 1989 to 1993, with the improvement being more marked for younger than older women and for White compared to Black women. Most scientists ascribe much of the improvement to a combination of greater awareness, wider mammography screening, and improved anticancer drugs, leading to more successful treatment.

This good news must be tempered, however, by the fact that the breast cancer incidence rate (the rate of diagnosis of new cases) is still high and has (until recently) been steadily increasing. Much of this increase is explained by the aging of the American population—as with most cancers, breast cancer is largely a disease of older ages, and as older women increase as a proportion of the population, the diseases that afflict them increase as well. Another major factor is the great expansion of mammographic screening in recent years, leading to earlier and more complete diagnosis of tumors that otherwise would have been found only later, temporarily increasing the apparent incidence rate. Yet even accounting for these factors, most analysts agree that there has been some modest but real increase in the true age-adjusted rate of new breast cancers in past decades. (Just this month, however, the National Cancer Institute reported that over the last five years,

overall incidence of breast cancer has no longer been rising.)

Breast cancer rates differ markedly among ethnic groups and among different regions of the world. Women who emigrate from regions with low breast cancer rates (e.g., Japan) to areas with higher rates (e.g., the United States) begin to take on the breast cancer rates of their new countries, with the effect being most pronounced in their daughters and granddaughters. This suggests that breast cancer rates are modifiable by some factors having to do with life-style, diet, or the environment. If these factors can be identified, the reasons for changes in breast cancer rates over time may become understandable. More importantly, new avenues of breast cancer prevention may be revealed, pointing to measures that we can take individually and collectively to try to reduce this major threat to women's health.

In this issue of **RISK IN PERSPECTIVE**, we summarize some results of our review of the published epidemiologic literature on risk factors for breast cancer. This review is aimed at identifying the list of factors that have been suggested, but also at examining the degree to which experts in the field have come to agreement about the nature, magnitude, and importance of the influence of the factor on breast cancer risk.

Established, Probable, and Possible Factors

Table 1 lists risk factors for breast cancer that have at least some level of support from epidemiologic studies. We have divided them into three categories showing our judgment about how well established they are, based on our review of the literature. *Established* factors are those that

