

STUDY: HALF OF BREAST CANCERS TIED TO THE ENVIRONMENT

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Analysis of 350 studies finds half of cases are unrelated to genetic risk or lifestyle choices

By Douglas Fischer

As many as half of all new breast cancers may be foisted upon women by pollutants in the environment, triggered by such items as bisphenol-A lining tin cans or radiation from early mammograms, according to a review of recent science by two breast cancer groups.

Their report, "State of the Evidence," released Tuesday [Jan. 24], buttresses what many researchers increasingly suspect: that repeated low doses -- particularly in early childhood -- to chemicals normally considered harmless can have a profound effect.

It also suggests that, for half of the 211,240 woman diagnosed with breast cancer in 2005, lifestyle choices and genetics played no role.

"You just can't blame it on lifestyle factors, like when you have children, or if you have children," said Nancy Evans, health science consultant for the Breast Cancer Fund and the report's principle author.

"Half the cases are not explained by genetics or the so-called 'known risk factors.' There's something else going on."

The report, by the San Francisco-based groups Breast Cancer Fund and Breast Cancer Action, analyzed the findings of more than 350 experimental, epidemiologic and ecological studies assessing breast cancer.

Breast cancer rates have climbed steadily in the United States and other industrialized countries since the 1940s. In the U. S., for instance, one in seven women will be diagnosed with breast cancer in her lifetime, almost triple the rate in the 1960s.

Researchers believe less than one in 10 cases occur in women born with a genetic predisposition for the disease. Instead, the report says, recent science makes very clear the cancer arises from a multitude of factors, from slight genetic mutations to altered hormone production to even radiation.

For instance, the report cited a study from Tufts University that found that exposing pregnant mice to extremely low levels of bisphenol-A altered the development of the mammary gland in their offspring at puberty.

And that alteration makes the gland more susceptible to breast cancer, Evans said.

Bisphenol-A, originally developed as a synthetic hormone in the 1930s, today is used as an additive to make plastic shatterproof and to extend the shelf-life of canned goods. Nearly 6 billion pounds are produced annually.

Industry has long maintained there is no evidence repeated low doses of compounds such as bisphenol-A can have such deleterious effects. A legislative effort to ban some of these chemicals from children's toys failed last week after industry scientists argued there was no cause for concern.

"A lot of work has been done on those issues," said Lorenz Romberg, a former U. S. Environmental Protection Agency scientist who now works as a consultant and testified before the Legislature on behalf of the chemical industry last month. "When you look at this body of evidence in total, we didn't find any evidence that there is a marked, repeatable-across-laboratories effect that has any clear scientific standing."

But the report, Evans said, makes clear there is no one culprit for rising breast cancer rates. What happens, for instance, when bisphenol-A or any several estrogen-like synthetic compounds on the market gets combined with the harm from a few low-dose X-rays?

No one knows, but new research from the National Academy of Sciences suggests there is no safe radiation dose: The lowest possible dose still increases cancer risk. Yet the American Cancer Society still recommends women over age 40 have a mammogram, despite evidence such procedures are not effective until women are 50 years old.

"We have to have a replacement for mammography. It's so aggressively promoted, especially for young women," Evans said.

But does the chance of early detection outweigh the risks?

"I'm not saying they should or shouldn't," Evans said. "They need to be aware of the risk. An additional 10 years of radiation is not insignificant."

The report, "State of the Evidence," can be found [here](#). Contact Douglas Fischer at dfischer@angnewspapers.com.

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