



## Abortion and Breast Cancer

### Scientific Research

Breast cancer is a very important health concern for women. For all women, the risk of breast cancer increases with age. According to the National Cancer Institute, this risk rises from about 1 in 252 for a woman in her thirties, to about 1 in 27 for a woman in her sixties, to a lifetime risk of about 1 in 8.<sup>1</sup> Discovering the causes of this disease is a high priority for research scientists around the world.

Since 1981 several dozen studies investigating whether abortion increases a woman's risk of developing breast cancer have been published. The results of the studies often seem contradictory, which can be confusing and frightening for women who are considering having an abortion. Many of the older studies alleging a link between breast cancer and abortion were flawed, since some included only a small number of women, and most used a scientifically unreliable method dependent upon self-reported abortion data.<sup>2</sup> Newer studies that rely on more accurate methods have consistently shown no association between abortion and an increased breast cancer risk.<sup>3</sup>

### What the Experts Say

In February 2003, the National Cancer Institute, a branch of the National Institutes of Health, convened a workshop that evaluated studies on abortion and breast cancer and assessed whether an association between abortion and breast cancer exists. Over 100 of the world's leading experts on pregnancy and breast cancer, including epidemiologists, clinicians and breast cancer advocates participated.<sup>4</sup>

These experts concluded that studies have clearly established that "induced abortion is not associated with an increase in breast cancer risk."<sup>4</sup> This conclusion was reviewed and

unanimously approved by the NCI's top scientific advisors and counselors.<sup>4</sup>

### Types of Studies

In order to understand which studies give us the most accurate information, it is helpful to know more about how the studies are done. There are two basic ways to conduct research on this topic; one looks backward in time at the abortion experiences of women who have breast cancer, and the other looks forward in time at the development of breast cancer among women who have had abortions.

- In *case-control studies*, scientists compare women who have breast cancer with similar women who do not. Both groups are asked whether they have had abortions in the past.
- In *cohort studies*, scientists compare women who have had abortions and similar women who have not. Both groups are examined again as years pass to determine whether they develop breast cancer.

### Case-Control Studies and Recall Bias:

Of the two, case-control studies have a higher likelihood of inaccurate results because healthy women and women with cancer report information about their medical history differently. When healthy women are asked very personal questions about their sexual lives, especially about a topic as sensitive as abortion, there is a strong tendency not to report truthfully on abortions they have had. On the other hand, women being treated for breast cancer are strongly motivated to give their doctors very accurate information, and they are less likely to forget to report an abortion they have had. Comparing the two groups of women, those with breast cancer will *appear* to be more likely to have had abortions, *even if this is not actually the case*. Scientists call this difference in how women report their medical history "*recall bias*."

A 1996 case-control study among Dutch women<sup>5</sup> demonstrated how recall bias works. Scientists found that in areas of the country where abortion is socially accepted,

women with breast cancer and women without breast cancer reported equal numbers of past abortions. But in regions where attitudes about abortion are less tolerant, healthy women reported fewer past abortions than women with breast cancer. Because it is not reasonable to assume that abortion leads to breast cancer in one place but not in another, the researchers

concluded that attitudes about abortion led some of the healthy women to under-report their abortions if they lived in places where abortion was not socially accepted. Other case-control studies have found similarly conflicting results, with some suggesting that abortion and breast cancer may be linked, and others finding no connection at all.

### Cohort Studies:

Cohort studies are not affected by recall bias, because scientists monitor the women directly from the time of their abortions until the time of any breast cancer diagnosis, and they do not need to rely on potentially faulty memories of past events. Scientists consider the results of cohort studies to be much more accurate than case-control studies. Cohort studies, however, take many years to complete and they are very expensive, so fewer of them are done. Of all cohort studies which have been published to date, *none have shown a link between abortion and breast cancer.*

The research problems discussed above can be overcome when accurate and complete life-long medical records are kept. In some European countries, where the government maintains a complete health registry on each citizen, studies using these unbiased records can be very informative. In fact, the most convincing cohort study of abortion and breast cancer involved over 1.5 million women in Denmark.<sup>6</sup> Using data from national registries, scientists found that abortion had no overall effect on the risk of breast cancer.

### Some Additional Facts

- single study reporting a link between two events does not, by itself, prove that the first event caused the second.

Both events might be caused by some unknown third factor.

- Some anti-choice organizations have worked hard to stir up fears that abortion causes breast cancer even though **there is a strong consensus in the scientific community that no such link exists.** Anti-choice groups promote these scientifically unwarranted conclusions as if they were established facts in order to frighten women and discourage them from having an abortion. Anti-choice activists are opposed to legal abortion under almost any circumstances, regardless of its safety. Their real goal in this controversy is preventing women from exercising their legal right to choose abortion, not protecting women's health.
- If you are considering abortion, your health care provider can give you the most up to date information on new research on abortion and the risk of future breast cancer.

### References

- 1 National Cancer Institute, Lifetime Probability of Breast Cancer in American Women, [http://cis.nci.nih.gov/fact/5\\_6.htm](http://cis.nci.nih.gov/fact/5_6.htm)
- 2 National Cancer Institute, Cancer Facts, March 2003, [http://cis.nci.nih.gov/fact/3\\_75.htm](http://cis.nci.nih.gov/fact/3_75.htm). See also below section of this factsheet entitled "Types of Studies."
- 3 National Cancer Institute, Cancer Facts, March 2003, [http://cis.nci.nih.gov/fact/3\\_75.htm](http://cis.nci.nih.gov/fact/3_75.htm)
- 4 See Summary Report: Early Reproductive Events and Breast Cancer Workshop, National Cancer Institute, <http://www.nci.nih.gov/cancerinfo/ere-workshop-report>
- 5 Rookus, M.A. & van Leeuwen, D.A. "Induced Abortion and Risk for Breast Cancer: Reporting (Recall) Bias in a Dutch Case-Control Study." *Journal of the National Cancer Institute*, 1996, 88(23): 1759-1764.
- 6 Melbye, M. et al. "Induced Abortion and the Risk of Breast Cancer." *The New England Journal of Medicine*, 1997, 336(2): 81-85.

### For More Information

For information or referrals to qualified abortion providers, call the National Abortion Federation's toll-free hotline: 1-800-772-9100.  
Weekdays: 8:00A.M. - 9:00P.M.  
Saturdays: 9:00A.M. - 5:00P.M. Eastern time.

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