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Abortion and Breast Cancer

The relationship between abortion and breast cancer has been the subject of extensive research. The current body of scientific evidence suggests that women who have had either induced or spontaneous abortions have the same risk as other women for developing breast cancer. Until the mid-1990s, results from studies of breast cancer and induced or spontaneous abortion were inconsistent. Some investigators reported an increase in risk, typically from interview studies of several hundred breast cancer patients compared to other women. Other studies found no evidence of increased risk.

Recent large studies, particularly cohort studies, generally show no association between breast cancer risk and previously recorded spontaneous or induced abortions. In a large-scale epidemiologic study reported in *The New England Journal of Medicine* in 1997, researchers compared data from Danish health registries that included 1.5 million women and more than 10,000 cases of breast cancer. The registry data on abortions was collected before the diagnosis of breast cancer was made. After adjusting the data for several established breast cancer risk factors, the authors found that "induced abortions have no overall effect on the risk of breast cancer." The strengths of this study include its large size, the ability to account for breast cancer risk factors that may differ between women who have had abortions and those who have not, and the availability of information on abortion from registries rather than having to rely on a woman's self-reported history of abortion.

In 2000 and 2001, additional findings were reported from studies that collected data on abortion history before the breast cancers occurred. These studies showed no increased breast cancer risk in women who had induced abortions. In three of the studies, information on abortion was based on medical records rather than on the woman's self-report; in another study, interview data was collected before any breast cancer diagnosis. The studies were conducted in different populations of women, and varied in size and the extent of details on established breast cancer risk factors.

Most of the early studies necessarily relied on self-reports of induced abortion, which have been shown to differ between breast cancer patients and other women. Other problems with these studies included small numbers of women, questions of comparability between women with breast cancer and those without, inability to separate induced from spontaneous abortions,

and incomplete knowledge of other breast cancer risk factors that may have been related to a woman's history of abortion.

Even though it appears that there is no overall association between spontaneous or induced abortion and breast cancer risk, it is possible that an increased or decreased risk could exist in small subgroups of women. For example, the large Danish study found a slightly lower breast cancer risk in women with abortions occurring before 7 weeks gestation, and a slightly higher risk in women who had abortions at 7 or more weeks. The National Cancer Institute is currently funding at least six other studies examining complete pregnancy history, including induced and spontaneous abortion, in relation to the risk of breast cancer.

Well-established breast cancer risk factors include age, a family history of breast cancer, an early age at menarche, a late age at menopause, a late age at the time of the first birth of a full-term baby, alcohol consumption, and certain breast conditions. Obesity is a risk factor for breast cancer in postmenopausal women.

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Sources of National Cancer Institute Information

Cancer Information Service

Toll-free: 1-800-4-CANCER (1-800-422-6237)

TTY (for deaf and hard of hearing callers): 1-800-332-8615

NCI Online

Internet

Use <http://cancer.gov> to reach NCI's Web site.

CancerMail Service

To obtain a contents list, send e-mail to cancermail@cips.nci.nih.gov with the word "help" in the body of the message.

CancerFax® fax on demand service

Dial 1-800-624-2511 or 301-402-5874 and follow the voice-prompt instructions.