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Canada's only national political pro-choice advocacy group

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Position Paper #70

Abortion and Breast Cancer: An Evidence-Based Perspective

Women and transgender people have the right to be presented with pregnancy options in a non-judgmental, unbiased manner. Exhibiting bias, providing misinformation, and coercion are a violation of rights. The anti-choice movement commonly uses misinformation to scare women out of having abortions.

Of the many false statements presented as fact, one of the most common is the purported link between breast cancer and abortion. However, after evaluating current, reliable evidence on the subject, ARCC, in agreement with all reputable medical associations, believes there is no link between abortion and the development of breast cancer.

What do current scientific studies and medical associations say about the link between abortion and breast cancer?

Determining whether there is a link between abortion and breast cancer (the "ABC link") has been the subject of extensive scientific research. The anti-choice movement is able to manipulate some data because literature prior to the 1990s was largely inconsistent — many studies had serious methodological flaws (small sample size, insufficient controls for variability, researcher bias), which resulted in inaccurate studies that purported to show correlations between abortion and breast cancer. More contemporary studies, which corrected the above-mentioned methodological flaws, show that there is no demonstrable link between therapeutic abortions and breast cancer; there is neither an increase nor decrease in breast cancer among women who have had a therapeutic abortion (for specific references, please consult the Endnotes).

Perhaps the most significant evidence refuting the ABC link comes form the National Cancer Institute (NCI) in the United States. In 2002, the NCI posted a report on its website dispelling myths about ABC. When their report was criticized by anti-choice members of Congress, the NCI held a conference, "Early Reproductive Events and Breast Cancer" in 2003 in Bethesda, MD. This conference brought together 100 cancer experts and epidemiologists to examine the data and provide a clear statement of fact. Their conclusion was that *it is well-established that induced abortion (a.k.a. therapeutic abortion) is not associated with an increased risk of breast cancer*.

Moreover, in 2009, the Committee on Gynecologic Practice of the American College of Obstetricians and Gynecologists concluded that "more rigorous recent studies demonstrate no causal relationship between induced abortion and a subsequent increase in breast cancer risk".

Several other organizations have also produced statements with regards to the so-called ABC link. The Society of Obstetricians and Gynecologists of Canada and the Society of Gynecologic Oncologists of Canada released a joint committee opinion statement in May 2005, which maintains that there is no link between either spontaneous abortion (miscarriage) or therapeutic abortion and the increased risk of breast cancer. The American College of Obstetricians and Gynecologists' Committee on Gynecologic Practice released a statement in August 2003, with the finding that early studies demonstrating an ABC link were inconclusive, and that more recent studies argue *against* a link between abortion and breast cancer. The Canadian Cancer Society, which monitors risk factors as they pertain to cancers, agrees with the NCI findings that there is no association between abortion and breast cancer.

What about statements or studies that claim a link between abortion and breast cancer?

Any statement or advertisement that claims there is a link between abortion and breast cancer is biased and based on inaccurate data. First, those who advertise an ABC link are connected to organizations with the primary goal of restricting abortion, not reducing rates of breast cancer. Second, the few studies that suggest an ABC link are considered out-of-date, and were not of a particularly high standard to begin with. These studies relied on small sample sizes that are not representative of the whole population, or relied on patient recall rather than following people over a period of time.

Recall bias is a common hazard in case-control studies, which use questionnaires or interviews to gather historical data from participants. The studies rely on women self-reporting their abortion history. Women with breast cancer are more likely to tell the truth about past abortions, because people with serious illnesses are motivated to report their medical history accurately to facilitate their treatment and recovery. But control groups of healthy people have less incentive to report honestly, and in fact, many women keep quiet about past abortions since it's a private and sensitive issue. They would be even less likely to report several past abortions because of the increased stigma. The result is a flawed study, because it will appear that women with breast cancer had more abortions than those in the control group, when they probably didn't.

Another type of study, called a "cohort study," is considered more reliable than case-control studies. In a typical cohort study, researchers spend many years following large numbers of women, some of whom have had abortions, to see which ones develop breast cancer later. Recall bias is not an issue because abortion data is drawn from public records. The result is an accurate percentage of how many women got breast cancer compared to others who didn't have abortions. Out of at least 11 cohort studies done since 1996 around the world, not one has found a statistically significant association between abortion and breast cancer, and some found negative associations—meaning abortion might actually protect against breast cancer.

Given that a correlation between abortion and a risk of breast cancer only shows up in casecontrol studies but never cohort studies, it's highly likely to be an artifact of recall bias. But the way, a correlation (or association) between two variables does not mean that one caused the other, as there could be other variables involved -i.e., an unrelated factor may be contributing to the increased risk. However, anti-choice advocates are notorious for confusing correlation with causation and jumping to the unwarranted conclusion that abortion causes an increased breast cancer risk.

Conclusion

Unfortunately, it is all too easy to pass off false information as fact. Anyone can make a website that looks professional, and anyone can write a press release. When faced with any piece of information, especially something with far-reaching consequences, it is important to be vigilant in questioning the source of such statements.

There are a few simple ways to do this:

- 1. Look for references. The best references come from high-quality, peer-reviewed journals. If the information is important enough and is sound, it will get into a good journal.
- 2. Look at the age of the resources. Information changes over time as we learn more and more about a topic.
- 3. Check the affiliations of the organizations and researchers doing the studies. (Note that some anti-choice researchers have been able to publish in peer-reviewed journals, despite questionable data, methodology, or conclusions.¹)
- 4. Beware of personal opinions. They are just that opinions, not fact.

Endnotes

Arthur, Joyce. How Deeply Flawed Studies on Abortion and Breast Cancer Become Anti-Choice Fodder. *Rewire*. Jan 9, 2014. https://rewire.news/article/2014/01/09/how-deeply-flawed-studies-on-abortion-and-breast-cancer-become-anti-choice-fodder/

Brewster DH et al. "Risk of Breast Cancer after miscarriage or induced abortion: a Scottish record linkage case-control study" *J Epidemiol Community Health.* 2005; 59; 283-287.

Canadian Cancer Society. *Abortion and Breast Cancer*. 2018. <u>http://www.cancer.ca/en/cancer-information/cancer-type/breast/risks/?region=on#reproductive</u>

Collaborative Group on Hormonal Factors in Breast Cancer. Breast Cancer and Abortion: Collaborative reanalysis of data from 53 epidemiological studies, including 83,000 women with breast cancer from 16 countries. *Lancet*. 2004; 363; 1007-16.

Committee on Gynecologic Practice, American College of Obstetricians and Gynecologists. ACOG committee opinion. Induced abortion and breast cancer risk. *Int J Gynaecol Obstet*. 2003 Nov;83(2);233-5.

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Names to watch out for include Joel Brind; David Reardon; Angela Lanfranchi; Patrick Fagan; John T. Bruchalski; William L. Toffler; Mary Davenport; Peter Mazolewski; Brent Rooney; Steven J. Condly.

Erlandsson G, Montgomery SM, Chattingius S, Elkborn A. Abortions and breast cancer. *Int J Cancer*. 2003; 103(5); 676-9.

Lash TL, Fink AK. Null association between pregnancy termination and breast cancer in a registry-based study of parous women. *Int J Cancer*. 2004; 110; 443-448.

Mahue-Giangreco M, Ursin G, Sullivan-Halley J, Bernstein L. Induced Abortion, Miscarriage, and Breast Cancer Risk of Young Women. *Cancer Epidemiology, Biomarkers and Prevention*. 2003; 12; 209-214.

National Cancer Institute. *Reproductive History and Cancer Risk*. Nov 9, 2016. <u>https://www.cancer.gov/about-cancer/causes-prevention/risk/hormones/reproductive-history-fact-sheet#q4</u>

Paoletti X, Clavel-Chapelon F. Induced and Spontaneous abortion and breast cancer risk: results from the E3N cohort study. *Int J Cancer*. 2003; 106(2); 270-6.

Society of Obstetricians and Gynaecologists of Canada / Society of Gynecologic Oncologists of Canada. Breast Cancer and Abortion. *JOGC*. 2005; 27(5); 491.

Ye Z, et al. Breast cancer in relation to induced abortions in a cohort of Chinese women. *Br J Cancer*. 2002; 87; 977-981.

Committee on Gynecologic Practice. ACOG Committee Opinion No. 434: induced abortion and breast cancer risk. *Obstetrics and Gynecology*. 2009; 113(6):1417–1418.

Susan G. Komen. *Table 25: Abortion and Breast Cancer Risk*. June 29, 2017. https://ww5.komen.org/BreastCancer/Table25Abortionandbreastcancerrisk.html