

## **Should Bra Usage Become a Standard Question in Breast Cancer Research? New Study From Iran Says Yes.**

There is about to be a revolution in the breast cancer field. And one of the first signs of this revolution is coming from Iran.

It is often hard to trace the origins of a revolution to a particular event. There is usually an undercurrent of stress and dissonance that precedes the actual revolt. These rumblings have been heard in the breast cancer field for over 20 years, and are now coming to boil. And Iran may now be leading the way.

It all has to do with the link between breast cancer and bras, an issue that has been suppressed and censored for the past 24 years, since the publication of [Dressed to Kill: The Link Between Breast Cancer and Bras](#). This book, first published in 1995 and now updated for 2018, described the first study ever done that directly looked at how wearing bras might be linked to breast cancer, the US 1991-93 Bra and Breast Cancer Study. My wife, Soma Grismaijer, and I are the medical anthropologist researchers who did that study and wrote that book.

While we did the first study on the link, the realization that wearing bras can cause breast cancer was known since there were bras.

For example, Dr. John Mayo, one of the founders of the Mayo Clinic, wrote in the article “Susceptibility to Cancer” in the 1931 *Annals of Surgery*, that “Cancer of the breast occurs largely among civilized women. In those countries where breasts are allowed to be exposed, that is, are not compressed or irritated by clothing, it is rare.” A bra patent in 1950 stated, “Even in the proper breast size, most brassieres envelop or bind the breast in such a fashion that normal circulation and freedom of movement is constricted. Many cases of breast cancer have been attributed to such breast constriction as caused by improperly fitted brassieres.” (Taken from the 2018 edition of *Dressed to Kill*.)

The issue has to do with constriction from tight bras and the effect this has on lymphatic circulation, which is the immune system. The purpose of bras is to alter breast shape, and to do this the bra applies constant pressure to the breasts, which interferes with lymphatic circulation. Wearing tight bras compresses and constricts these delicate lymphatic vessels, preventing the proper elimination of fluid and toxins from the breasts, and impairing immune function and the ability to fight developing cancer cells. Essentially, bras cause chronic, mild lymphedema of the breasts which causes breast pain, cysts, and can lead to cancer.

This causes fluid and toxins to accumulate in the breasts, which results in breast pain and cysts. It also prevents the proper cleansing of the breast tissue, resulting in progressive tissue toxification.

Keep in mind that the lymphatic system is the circulatory pathway of the immune system. Without proper lymphatic drainage, the breasts cannot be effectively cleansed of waste products, cancer cells, viruses, bacteria, cell debris, and other products that are normally flushed away.

Lymphatic impairment is immune impairment. It also increases cancer development.

When the lymphatics are impaired, the breast tissue gets deprived of oxygen and nutrients, as well. And any toxins we consume in our polluted air, water and food, as well as toxic medications, cannot effectively be flushed away from the breast tissue when the breasts are constricted by bras. Some of these toxins are also carcinogenic. The bra concentrates these toxins in the breast.

Our study was a survey of about 4,700 women, about half of whom had had breast cancer. We asked about past bra usage habits and attitudes, and compared the cancer group with the control group. The results were significant and astounding.

We found that women with breast cancer had a history of wearing bras tighter and longer than other women, and had less concern about bra tightness and discomfort. Essentially, a bra-free woman has about the same risk of breast cancer as a man, while the tighter and longer the bra is worn the higher the risk rises, to over 100 times higher for a 24/7 bra user compared to a bra-free woman.

Since our seminal study, there have been many other studies done around the world that confirm the bra-cancer link. (See references below.) For example, a 2016 [study from Brazil](#), entitled, *Wearing a Tight Bra for Many Hours a Day is Associated with Increased Risk of Breast Cancer*, examined the bra tightness (which was expressed as a bra stretch percentage coefficient) and length of time a bra is worn. “Although the time of wearing a bra and the bra cup size had been investigated in relation to breast cancer, the stretchiness of the bra never went evaluated before. The present study measures in loco the bra stretchiness needed to fit a woman's chest (stretch percentage) multiplied by the number of daily bra wearing hours in patients with breast cancer and compares the results with the ones obtained from control women without the cancer.”

The study found, “Women who had a high daily bra wearing hours x bra stretch percentage coefficient had a frequency of breast cancer that was 2.27-fold higher compared to those who had a low coefficient. This result demonstrated that there is an association between these variables and breast cancer among pre- and postmenopausal women. This study demonstrated a correlation between wearing a tight bra for several hours per day and an increased risk of developing breast cancer.”

In 2015 a study from Nairobi, Kenya made a similar finding. Entitled, *Comparative study of breast cancer risk factors at Kenyatta National Hospital and the Nairobi Hospital*, the study of 694 patients found that “Women who wore brassieres all the time, even when in bed were significantly associated with breast cancer occurrence as compared with those who never wore brassieres, or those whom only did so on important occasions ( $p < 0.001$ ). The wearing of brassieres, particularly underwire types or those that fit tightly, has been proposed to increase the risk of breast cancer. Singer and Grismaijer published their report in the book called ‘Dressed to Kill’, which describes a study they conducted (10). They reasoned that brassieres cause physical constriction that reduce lymphatic circulation, resulting in the retention of carcinogenic toxins. Unfortunately their work was never accepted for publication, and to date, there have been no scientifically valid studies that support the claim that brassieres may be associated with breast cancer occurrence. Ours does. To add to their theory, carcinogens released from blocked lymphatics may cause epigenetic changes impacting on cellular downstream signaling that may culminate in cancer. This may be made even easier if they acted on an already defective gate keeper gene in concert with Knudson’s ‘double hit hypothesis’.

There have been numerous studies from China that show sleeping in a bra causes breast cancer. One of the first studies, done in 2009, entitled, [A case-control study on risk factors of female breast cancer in Zhejiang province], found that not sleeping in a bra lowered breast cancer risk by 60%. A 2015 meta-analysis of 12 studies confirmed that sleeping in a bra definitely increases breast cancer risk.

There are others studies, as well. Clearly, constricting the breasts with bras for long hours daily is a cause of breast cancer. And there are studies which confirm that impaired lymphatic circulation causes cancer. For example, the 2018 study, entitled, *Lymph Stasis Promotes Tumor Growth*, found increased cancer incidence due to surgery that cuts lymphatic vessels. Since the lymphatics are the circulatory pathway of the immune system, impairing these vessels with scar tissue hampers

circulation and reduces the ability of the immune system to fight developing tumors. “(T)hese findings come as no surprise to us who for a long time have been aware that alterations in regional lymphatic flow may produce dysregulation in skin immune function and consequent oncogenesis. In fact, since 2002, our team has held the view that lymphedematous areas are immunologically vulnerable sites for the development of neoplasms as well as infections and immune-mediated diseases. In recent years, increasing evidence has confirmed this assumption.”

Of course, if lymphatic impairment from inside the skin can cause cancer, then lymphatic impairment from the outside, from tight clothing, can also cause cancer.

Naturally, this does not mean that bras are the only cause of breast cancer. And not all bra users will get breast cancer, just as not all smokers will get lung cancer. But it does mean that ending the constriction of the breasts by bras may possibly prevent breast cancer.

Telling this to women have not been easy. And still isn't easy. But a revolution is on the way.

The problem is that the bra-cancer link threatens to bust the breast cancer field, and it challenges sexist dress codes and cultural expectations and hang-ups about breasts. Exposing the bra as a cause of cancer threatens the very fabric of our bra-using, breast-obsessed, sexist culture.

Our culture requires and trains women to artificially-shape their breasts and to create cleavage by constricting their breasts in tight bras that make the breasts immobilized, high on the chest wall, and appearing nipple-less. Women are given “training” bras from childhood to get them trained into accepting the discomfort of bras on a daily basis. Some women are falsely told that the bra will prevent their breasts from sagging, a fate worse than death for many women who have come to believe that their breasts are objects for the viewing pleasure and judgement of others.

Even at work, there are dress codes that implicitly or explicitly assume that a professional woman would be wearing a bra. While this may make sense for the oldest profession, there is no reason why most professional women need to worry about their breast shape and appearance at work, especially if men doing the same job don't have to wear bras.

Given the culture's apparent commitment to women wearing bras, there is a huge, powerful, multi-billion dollar bra industry that sells about one million bras in the US each day. Telling women that their bra is causing disease would be a big threat to this industry, as well as a challenge to all the women who are conditioned into believing they need to wear a bra to be acceptable in public.

It would also be a big threat to the cancer industry. Which is why this issue is so revolutionary. If wearing tight bras for long hours daily increases breast cancer incidence, then what about all the research studies that have ignored this important variable? Bras are not the only cause of breast cancer, but their impact on the lymphatic system and general health of the breasts makes this a relevant factor in any breast disease study.

Not including bras in breast cancer research is like not including smoking in lung cancer research. Indeed, this was the case prior to the revolutionary discovery of the tobacco-cancer link. In fact, that discovery was resisted by a tobacco-addicted culture for 30 years, with members of the medical community actually encouraging smoking as good for one's health. The American Cancer Society resisted the issue, as well, since members of their board also served on the boards of tobacco companies.

Think of all the lung cancer research that needed to be redone because it did not consider smoking in the study design. The entire field of lung cancer had been built on a foundation that did not consider smoking, an issue which we now routinely associate with cancer development and which is considered in any lung cancer study. In the past, everyone smoked, even the doctor. The resistance to the realization that smoking caused cancer was based on cultural factors, including tobacco industry resistance, medical industry resistance, and resistance from addicted smokers. Tobacco companies funded lung cancer research to show the benefits of smoking and to confuse the field. For many years this worked. But eventually, the truth prevailed. Tobacco companies were sued for damages, and lost.

Right now, we are going through the same thing with the bra issue. Powerful industries produce and market bras and perpetuate the cultural message that women must wear bras; women become psychologically and physically addicted to the bra; and the medical industry faces admitting that past breast cancer research is flawed by excluding bra usage in study design. Just as experts scoffed at the smoking-cancer link, and insisted that smoking is safe, today there are experts

scoffing at the bra-cancer link, calling it a myth, and insisting that bras are good for the breasts regardless of their tightness and length of time worn.

To try to disprove the link, the National Cancer Institute, which is highly influenced by the American Cancer Society, paid for a study to be done to demonstrate that bras are not causing breast cancer. The NCI and ACS had already publicly stated that bras cannot cause breast cancer, so this study was to confirm their bias. To guarantee the results they wanted, they excluded bra-free women from the study, which means there was no control group for comparison. The author of the study, Lu Chen, a graduate student at the time, admits that this was a weakness of her study. (She also wore bras, but she didn't admit this was a conflict of interest, like a smoker doing tobacco research on lung cancer. The author also didn't mention that the research facility where this study was done, Fred Hutchinson Cancer Research Center, also raises funds by doing a 5K Bra-Dash, where people run with bras strapped to the outside of their shirts. That's like having people running while smoking to raise funds for lung cancer research.)

Despite this being the only study that has not shown a bra-cancer link, the media has been instructed to say that this is the final word on the "myth" that bras cause breast cancer. For example, one article starts that, "It seems almost preposterous that a study like this one had to be conducted." The author of the Hutchinson study was quoted as saying the idea of bras causing cancer "seemed so implausible, so people didn't look at it." In a Hutchinson press release for their study, the author admitted her bias. "'We weren't really surprised,'" Chen said. "'We knew that the biological plausibility of a link between bras and breast cancer was really weak.'"

Just admitting that they needed to do a study on the bra-cancer link was a problem that opponents of the link had to manage. If a study is appropriate, then the link is plausible, which is something they didn't want to admit. So they say they did the study to dispel rumors of the link and reassure women. According to the Hutchinson press release, Ted Gansler, director of medical content for the ACS, claimed, "'The study ... should reassure women that they can safely ignore this matter.'"

The ACS now states on their website, "Internet and e-mail rumors and at least one book have suggested that bras cause breast cancer by obstructing lymph flow. There is no good scientific or clinical basis for this claim, and a 2014 study of more than 1,500 women found no association between wearing a bra and breast cancer risk."

Note that this conclusion by the ACS is based on one biased study that was not reproduced and did not include a control group of bra-free women, and that despite there being other studies which show the link. Many have been done since that 2014 study. But the ACS has no interest in those studies, despite their knowing about them.

Here we see the problem. “There is no good scientific or clinical basis for this claim”, really means that the current paradigm for understanding breast cancer occurrence does not include bras. It means that including the bra in breast cancer research design goes against the way things are currently being done and conceptualized. Admitting this flaw can topple the entire breast cancer field.

To protect the status quo, which is reliant on early detection and treatment with drug therapy, surgery, and radiation, the leaders of the breast cancer field, including the ACS, NCI, and Susan G. Komen Foundation, among others, have undertaken a massive suppression campaign. This began in 1995, when *Dressed to Kill* was first published and was getting attention. The bra-cancer link has been called a “myth”, and every possible rationalization has been used to try to discredit the issue and myself. You can tell these organizations about the studies that have been done, and they don’t respond.

Scientists are afraid to do research on this subject because they fear that their funding will stop from drug companies that make cancer drugs, or from funding sources that are influenced by drug companies, which includes the ACS, NCI, and Komen Foundation. That is why the cancer authorities have made shallow, but politically effective, statements denying any possible bra-link. It is not a scientific statement, but a political one. It says research this topic at your own peril.

Note that while the medical community fights for its continued ignoring of the effect of tight bras on breast physiology and pathology, there have been many bra manufacturers that have patented new bra designs intended to be safer for the breasts, based on our research. For example, see [this](#) and [this](#). They claim that these bras are less constrictive of the lymphatic system. Some bras even try to massage the breasts to improve circulation. That’s because there is a market for safer bras. Despite the resistance, women have been hearing the message and have decided to question their bra usage. Aiding this is the #MeToo movement and women’s realization that they have been marginalized, sexualized, and objectified for too long, including the ridiculous and misogynistic requirement that women wear bras.

Given this climate of controversy, we come to the latest twist on the medical revolution. A recent study from Iran has done what no other study has done before. It is a study on nutrition and breast cancer incidence, and they included questions about bra usage in their research design.

Realize that large epidemiological studies in the US on nurses and others regarding lifestyle and breast cancer incidence completely ignore bra usage. We asked them to include bra usage, but they refuse. It's taboo in the US to include bra usage, or to admit that it might be a factor in breast disease.

But in Iran, it was considered important to ask. This is a major breakthrough. Here is a study that included wearing a bra during the day and wearing one a night as questions for its subjects. And the results showed that bra usage was one of the biggest factors linked to cancer incidence, comparable to family history in this study. Clearly, the bra is an important factor that needs to be addressed in any study on breast cancer.

But there's a twist. The study mentioned that it included bra usage in the survey, and it gave data showing a link between bra usage and breast cancer incidence. But it did not discuss the issue at all. The results about bra usage were not mentioned in the discussion or anywhere in the study.

Here is part of their Table 1. Note that the difference between the cancer group (first column of numbers from the left) and the control group (second column of numbers from left) for bra usage is about the same for family history, in this study.

Note, too, how many women are 24/7 bra users!

Family cancer history <sup>3</sup>			0.03
Yes	41 (31)	55 (21)	
No	93 (69)	211 (79)	
Day bra use <sup>3</sup>			0.01
Yes	122 (91)	217 (82)	
No	12 (9)	49 (19)	
Night bra use <sup>3</sup>			0.10
Yes	106 (79)	190 (71)	
No	28 (21)	76 (29)	

In this study, tightness was not considered, and length of time worn daily was grossly estimated. Yet, despite this lack of detail, the big picture still shows a significant bra-cancer link. But why the lack of discussion?

I wrote the lead author and asked. I have not received a reply. So I will venture a guess as to what happened.

I have had reports from other scientists that getting any research published on the bra-cancer link is difficult. Peer reviewed journals are the gateway for information, and can reject any research that goes against their policy, agenda, or interests. They don't have to give a reason for rejecting research papers, either. Many peer reviewed journals have advertisements for breast cancer treatment drugs. Given the antagonism against the bra-cancer theory by the defensive and profit-oriented medical establishment, censorship is rampant.

So it is likely that any discussion of the bra-cancer link found in the Iranian study has been edited out. I could be jumping to conclusions, but this kind of censorship is never admitted openly. I cannot find any other plausible reason for not discussing this data in the Iranian study apart from censorship. Why ask about bra usage and include the results in a table and not mention the positive results. Note, too, that in this study there is reference to the 2016 Brazil study and the 1991 Harvard study, showing that the authors of the Iranian study were well aware of the issue and controversy. Why not mention their results?

We will never know for sure. It seems likely that the editors took out the discussion of the bra-cancer link because the article was about nutrition, not bras. On the other hand, the 1991 Harvard study was also not about bras, per se, but about breast size, as estimated by bra size. Yet, that discovery of a 50% reduced incidence of breast cancer in pre-menopausal bra-free women was mentioned in that study. Why then and not in this study? It's because the Harvard study preceded our research and publication of *Dressed to Kill*, at which point medical resistance to the bra-cancer link began. This resistance was not yet apparent in 1991. And the authors of the Harvard study did not believe the link was real, since they were not thinking that bras could harm the breasts. Their finding was accidental, and therefore its significance ignored, even by the researchers themselves who did not follow-up on the bra connection.

The Iranian study, however, mentions the bra-cancer link, gives references, asks some relevant bra usage questions, and gives data supportive of the link. Yet, there is no discussion or explanation of the issue.

While this case of the missing link may go on unsolved, the revolution has clearly started. Scientists are beginning to ask about bra usage, something considered ridiculous in the past, and still considered ridiculous by the ACS, NCI, and other defendants of the bras and of the cut, burn, and poison cancer industry.

This raises the important question. If there is so much institutional resistance to allowing the bra-cancer link to be addressed scientifically, then why is the issue still advancing?

The answer is that many women who have heard about the bra-cancer link have decided to stop wearing bras, and their breast health improved dramatically, and within a relatively short period of time. Once the constriction from the bra ends, women report that their pain and cysts disappear within days, if not weeks. They also report that their breasts lift and tone, a surprising side effect of being bra-free. That's because the artificial support from the bra makes the natural suspensory ligaments in the breasts weaken and atrophy from nonuse. This makes the breasts droopier than they would be naturally. Also, the bra congests the breasts with lymph fluid, making the breasts heavier. When the bra is gone, all this changes.

Women also say they can breathe easier without a bra strapped around their chest. And they say that their self-esteem improves once they no longer feel inadequate in public without a bra. They also say they feel more liberated in other aspects of their lives, too.

Getting rid of the bra got a lot off of their chests.

This ability for women to see for themselves that bras have been harming their breasts has helped propel this issue forward. Truth has a way of doing that, so long as there is not complete censorship, as the cancer industry would like there to be.

It is only a matter of time until other studies begin to ask about bra usage. Eventually, all prior studies which ignored the link will be re-examined and criticized for excluding this important variable. This means that lots of old information thought true may be discovered false once the bra issue is addressed.

The bra-cancer link opens a Pandora's box of questions that have to be answered. The cancer industry wants to delay their comeuppance.

The drug companies won't like it. Breast cancer detection and treatment revenue will fall, as will lingerie sales. There will be class-action lawsuits as more studies show the link. It will change the way we think about women, breasts, bras, and breast cancer research.

The revolution has begun. Change is happening. The end of the breast cancer epidemic is nearer than ever. All we have to do is somehow get the multi-billion dollar breast cancer industry more interested in ending this disease than fearful in ending their careers.

### SOME STUDIES THAT SUPPORT THE BRA-CANCER LINK

- 1991 Harvard study (CC Hsieh, D Trichopoulos (1991). Breast size, handedness and breast cancer risk. European Journal of Cancer and Clinical Oncology 27(2):131-135.). This study found that, "Premenopausal women who do not wear bras had half the risk of breast cancer compared with bra users..."
- 1991-93 U.S. Bra and Breast Cancer Study by Singer and Grismaijer, published in Dressed To Kill: The Link Between Breast Cancer and Bras (Second Edition, Square One Publishers, 2018). Found that bra-free women have about the same incidence of breast cancer as men. 24/7 bra wearing increases incidence over 100 times that of a bra-free woman.
- Singer and Grismaijer did a follow-up study in Fiji, published in Get It Off! (ISCD Press, 2000). Found 24 case histories of breast cancer in a culture where half the women are bra-free. The women getting breast cancer were all wearing bras. Given women with the same genetics and diet and living in the same village, the ones getting breast disease were the ones wearing bras for work.
- A 2009 Chinese study (Zhang AQ, Xia JH, Wang Q, Li WP, Xu J, Chen ZY, Yang JM (2009). [Risk factors of breast cancer in women in Guangdong and the countermeasures]. In Chinese. Nan Fang Yi Ke Da Xue Xue Bao. 2009 Jul;29(7):1451-3.) found that NOT sleeping in a bra was protective against breast cancer, lowering the risk 60%.
- 2011 a study was published, in Spanish, confirming that bras are causing breast disease and cancer. It found that underwired and push-up bras are the

most harmful, but any bra that leaves red marks or indentations may cause disease.

- 2014 Lymphedema and subclinical lymphostasis (microlymphedema) facilitate cutaneous infection, inflammatory dermatoses, and neoplasia: A locus minoris resistentiae. Clin Dermatol. 2014 Sep-Oct;32(5):599-615.
- 2015 Comparative study of breast cancer risk factors at Kenyatta National Hospital and the Nairobi Hospital J. Afr. Cancer (2015) 7:41-46. This study found a significant bra-cancer link in pre-and post-menopausal women.
- 2016 Wearing a Tight Bra for Many Hours a Day is Associated with Increased Risk of Breast Cancer Adv Oncol Res Treat 1: 105. This is the first epidemiological study to look at bra tightness and time worn, and found a significant bra-cancer link.
- 2016 Brassiere wearing and breast cancer risk: A systematic review and meta-analysis World J Meta-Anal. Aug 26, 2015; 3(4): 193-205 Shows a statistically significant findings to support the association between brassiere wearing during sleep and breast cancer risk.
- 2016 Lymphatic Vessels, Inflammation, and Immunity in Skin Cancer Cancer Discov. 2016 Jan; 6(1): 22–35. This helps explain how lymphatic impairment leads to cancer.
- 2017 Surgical damage to the lymphatic system promotes tumor growth via impaired adaptive immune response Journal of Dermatological Science April 2018 Volume 90, Issue 1, Pages 46–51 "These results strongly indicate that surgical damage of the lymphatic system may promote tumor progression via impaired adaptive immune response."
- 2018 Lymph stasis promotes tumor growth Journal of Dermatological Science "(t)hese findings come as no surprise to us who for a long time have been aware that alterations in regional lymphatic flow may produce dysregulation in skin immune function and consequent oncogenesis. In fact, since 2002, our team has held the view that lymphedematous areas are immunologically vulnerable sites for the development of neoplasms as well as infections and immune-mediated diseases. In recent years, increasing evidence has confirmed this assumption."
- 2018 How Bras Cause Lymph Stasis and Breast Cancer Academic.edu "Recent studies are showing that lymph stasis causes cancer by reducing immune function. This article draws on these studies to further explain how constriction from tight bras results in lymphatic impairment in the breasts and an increased incidence of breast cancer."

