

Breast cancer and stress

[Health & Medicine](#), [Cancer](#)



Everyone has been touched by cancer; through family members, friends, or coworkers. Cancer does not discriminate; it affects people of all races, genders and classes. It is caused by a DNA glitch. DNA is a part of the cell that directs cell reproduction and growth. Instead of allowing for the normal, slow growth of new cells, the impaired DNA causes quick cell growth and reproduction, which takes a toll on the body. Breast cancer is a disease that mainly affects women and it is the leading type of cancer by sex and site for women, and the second leading cause of death by sex and site for women, after lung cancer. (1) In 2011, it is estimated that 23, 400 Canadian women will be diagnosed with breast cancer and 5, 100 will die from it; approximately 64 Canadian women will be diagnosed with breast cancer on a daily basis; approximately 14 Canadian women will die of breast cancer on a daily basis; 1 in 9 women is expected to develop breast cancer during her lifetime (until age 90) and 1 in 28 will die from it; 190 men will be diagnosed with it and 55 will die from it. The good news is that breast cancer death rates have declined in all ages combined and in every age group since the mid-1990s. (2) Different lifestyle factors and genetics can have an impact on the incidence of breast cancer. (3) But what about stress; how does stress affect breast cancer incidence and treatment? The idea of stress having an impact on cancer development is not a new one. Many observations were made in the 18th and 19th centuries by physicians who studied cancer patients and found that many of them suffered from precursory problems of a serious form prior to cancer diagnosis. Whether these stressors had caused the cancer was the main question, and if the stress had to be long term or short term. (4) A study by Jacobs et al., 2000, examined the effect of chronic

and early stress on breast cancer. They reviewed the role of parental death and chronic depression as a risk for developing this disease. 1, 213 women were interviewed and followed over a period of twenty years. 29 of the women were hospitalized for breast cancer and 10 died of it. It was found that for these 29 women, maternal death in childhood and chronic depression with severe episodes that occurred at least twenty years before hospitalization increased the risk of breast cancer. More recent life events, depression or anxiety issues did not appear to have an effect on the increased risk of breast cancer. (5) A study by Priestman et al., 1985, analyzed if short term stress produced an increased risk of breast cancer. 100 women already diagnosed with breast cancer, as well as 100 women with benign breast lumps and 100 healthy women were all given a questionnaire documenting stressful life events that they had experienced during the last three years. They also filled out a personality profile. It was found that there was no difference between the amount of stressful life events for the women with malignant breast lumps when compared to the women with benign breast lumps. There was also no difference in the types and severity of stressful life events that they encountered, and their personality profiles were similar. The healthy control group appeared to have the highest levels of stress accounts, more than the breast cancer group and the benign lump group. The researchers could not find a link between recent stress and malignant breast lump formation, but they admitted that some of the lumps could have possibly grown previous to the three years involved in the study, and could possibly be caused by earlier exposure to stress. (6) Stress can have a profound impact on the immune system of a breast cancer

patient. Chronic stress can cause the immune system to malfunction, which can make it more difficult for the body to fight the disease. Depression, which can be caused by stress, can weaken the immune system, reduce natural killer (NK) activity, and reduce T cell reproduction. NK cells and T cells help fight breast cancer. (7) Researchers in India, Chintamani et al., 2011, studied the relationship between anxiety and depression levels with response to neoadjuvant chemotherapy in women with breast cancer. 84 breast cancer patients receiving chemotherapy treatment were interviewed using the Hospital Anxiety and Depression Scale (HAD) to determine depression and anxiety levels. Also, tumour reduction was measured and had to have at least a 50% reduction in size after three chemotherapy sessions in order for the breast cancer patients to be counted as physically responsive to treatment. The researchers discovered that non-responders (patients who had no physical response to the treatment) had higher levels of depression when compared to responders. This study demonstrates that high levels of stress, anxiety and depression can weaken the body's ability to fight breast cancer. (8) Factors such as culture, support, socio-economic status and body image can all determine how breast cancer patients handle stress. Researchers in Istanbul, Turkey, DaÅŸtan et al., 2011, studied depression and anxiety levels in breast cancer patients and their related factors. They used the Hospital Anxiety and Depression Scale (HAD) to determine depression and anxiety levels. It was found that depression scores were higher in women with a family history of cancer. Depression levels were also higher in patients who underwent a mastectomy, versus those patients who had breast conserving surgery. Low income was found to be an

important risk factor for depression in breast cancer patients as well. (9) In the study by Chintamani et al., 2011, the women examined in India with low literacy levels, low education, unemployment and low family support suffered more anxiety and did not respond to chemotherapy as well as the women with higher socio-economic status. Interestingly, when compared to women of developed countries, the Indian women suffered lower levels of depression and anxiety, possibly due to their more limited education and therefore more limited knowledge of cancer, leading to a more relaxed attitude towards it. Family support is also higher in the Indian culture, where many extended family members live together in one household, creating more access to caregivers. (10) A study by Michael et al., 2009, examined the role of stress, social support and breast cancer incidence in postmenopausal women. The data was collected from participants of the Women's Health Initiative observational study, who were breast cancer free at the start of the study and gave information regarding stressful life events, social support and breast cancer risk factors. The participants were followed for an average of 7.6 years. It was found that of the participants who developed breast cancer, risk was increased with one stressful life event, but risk decreased after each additional stressful life event. However, stressful events alone or in the presence of low social support were not consistently associated with an increased risk of developing breast cancer. (11) Because of the effect that depression and anxiety can have on the health of the breast cancer patient, psychological screening should be performed early on in the diagnosis process. The lack of a proper psychiatric diagnosis and follow-up in cancer patients can lead them to poor life quality, longer

hospitalization times and poor adjustment to the treatment plan, as well as poor adherence to treatment and therapy. (12) A psychiatrist can help a breast cancer patient work through different emotions, discuss treatment options, and explore body and self-image issues. Another important aspect is working with the family of the breast cancer patient to discuss fears, family role changes and caregiver duties. If the patient is suffering from depression and anxiety, then medication can be prescribed, like antidepressants.

Managing symptoms of anxiety and depression can promote adherence to treatment. The psychiatrist can also help the patient deal with everyday issues, such as career priorities, time away from family and the financial concerns that come with missing work. (13) Breast cancer patients also help to manage anxiety and depression through different relaxation techniques, such as yoga, meditation and physical activity, which can also help in the management of side effects of treatments, such as chemotherapy. (14) In India, where medical resources are limited, stress management is usually given by traditional healers, religious workers and family members. (15)

Breast cancer is a very deadly disease, and researchers are working hard towards a cure. Although chronic stress may be associated with an increased risk of developing breast cancer, it is not yet proven. The effect of stress on patients already going through breast cancer treatment is evident, in that stress can lower the immune system and make it more difficult to combat the disease. Stress management and psychiatric diagnosis and treatment are critical in improving the mental health and quality of life of the breast cancer patient. References 1. Taylor, S, Sirois, F. (2009). Health Psychology. Canada: McGraw-Hill Ryerson, 405-406. 2. Canadian Cancer Society/ National

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