

# Heart Disease Can Make Breast Cancer Worse!

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red heart-shaped balloons in the sky

Many breast cancer survivors have a higher risk of developing diseases that affect the heart (heart attack and strokes) after receiving treatment for their cancer. This is because some chemotherapy agents damage the muscles of the heart, inhibit blood vessel formation, and can cause blood clots. While this is known, Kathryn Moore, Ph.D., of New York University's Grossman School of Medicine wanted to find out if the opposite was true - do cardiovascular (heart and blood vessel) events affect cancer outcomes in breast cancer survivors.

Researchers tracked 1,700 women with breast cancer for an average of 12 years. They found that breast cancer survivors who suffered heart attacks, strokes, arrhythmia (irregular heartbeat), and other cardiovascular events had a 59% higher risk of their breast cancer coming back. It was also found that they had a 60% higher chance of dying compared to survivors who did not experience cardiovascular events. Researchers also saw this same trend in laboratory mice. They studied two groups of mice with breast cancer: one in which heart attacks were surgically induced and another in which they were not. They found that the breast cancer tumors were almost as twice as big in the group of mice that heart attacks. The team discovered that this was caused by a lack of helpful immune cells and an increase in suppressor immune cells (cells that prevent cancer-killing cells from attacking the tumor).

This study highlights the important of minimizing cardiovascular disease risk in breast cancer survivors. Exercising regularly and maintaining a healthy diet could reduce the occurrence of diabetes, obesity, and high blood pressure. These strategies will reduce risk and improve patient outcomes for women with breast cancer.

Source

<https://www.cancer.gov/news-events/cancer-currents-blog/2020/heart-attack-breast-cancer>

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