

# Can Taking More Breaks From Sitting Help Breast Cancer Survivors Lessen Their Diabetes Risk?

Research shows that women taking selective estrogen receptor modulators may benefit from movement breaks throughout the day.

April 9, 2026 By University of Colorado Cancer Center and Greg Glasgow

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Medicines that control the level of estrogen in the body are essential for women who have been treated for certain types of [breast cancer](#), as they help keep the cancer from returning.

These medicines come with a significant caveat, however: They increase the risk of developing type 2 diabetes.

[University of Colorado Anschutz Cancer Center](#) members [Heather Leach](#), PhD, and [Rebecca Scalzo](#), PhD, recently [published research](#) investigating how activity behaviors can reduce that risk, specifically looking at how the relationship between activity and diabetes risk might differ among breast cancer survivors being treated with two types of estrogen-blocking medications — selective estrogen receptor modulators (SERMs), such as tamoxifen, typically prescribed for menopausal women, and aromatase inhibitors (AIs), such as anastrozole, typically prescribed for post-menopausal women.

“We were looking at the relationship between diabetes risk and a variety of activities including sitting, light movement, and exercise, while accounting for fitness and body composition,” says Leach, who directs the [Physical Activity for Treatment and Prevention Laboratory](#) at Colorado State University in Fort Collins.

## Mixed results

Leach, Scalzo, and their co-researchers tracked participants’ activity, big and small, over a two-week period and measured glucose and insulin numbers to examine associations between those activities and diabetes risk.

“We found that for women taking selective estrogen receptor modulators (SERMs), breaking up their periods of sitting during the day — standing up more often — was linked to better blood sugar control and healthier insulin levels,” Leach says. “But we did not see the same association

for women receiving aromatase inhibitors.”

Leach says the difference is likely attributable to the way the medications work: “Both drugs lower estrogen’s effect in breast tissue, which helps prevent cancer occurrence, but they do it in different ways. The selective estrogen receptor modulators block estrogen at the breast tissue but still allow estrogen to act in other tissues, including skeletal muscle, where estrogen activity appears to help with blood sugar regulation. Aromatase inhibitors, on the other hand, reduce the body’s overall estrogen production more broadly, which means skeletal muscle doesn’t receive the same benefits.”

### Next steps

Leach says the results don’t mean that exercise isn’t beneficial for women on aromatase inhibitors, but it might mean they need a different type of activity — perhaps more intense exercise, such as resistance strength training — to see metabolic improvements. Going forward, she is focusing her research on women taking SERMs, looking to understand more about how movement breaks improve metabolic health and also how to help women taking SERMs incorporate more sitting breaks into their daily routine.

“If we know that breaking up periods of sitting is impactful for metabolic health for women receiving selective estrogen receptor modulators, the next question is, from a behavioral standpoint, how do we get them to do that?” she says. “We also want to go back to mechanistic models of understanding how these drugs work on glucose uptake in the muscle and the tissue level. We can go back to the laboratory to investigate the mechanisms for this, which could inform how medications work or if there’s something else these women can do that could lessen any negative impacts of these important cancer-treating drugs.”

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