**Dear Sisters—**

To help you keep up with the latest Sister Study news, we plan to send you periodic flyers with our latest updates. You will also find the latest news on our Sister Study website sisterstudy.niehs.nih.gov/English/new.htm and on our Sister Study Facebook group page. To join our Facebook group, search for “NIEHS Sister Study” on Facebook, scroll to the right of the top bar, click “Groups”, and ask to join our private group. You may also follow this direct link www.facebook.com/groups/niehssisterstudy. Thank you for helping our researchers continue to advance breast cancer research!

**Remember when we asked you to send us your toenail samples?**

We used them to measure your exposure to metals, which can come from your food and water and the air that you breathe. Some of these metals have health effects, but their effects on breast cancer are not well-understood. We studied women diagnosed with breast cancer before age 50 and their sisters. None of the metals we looked at – arsenic, cadmium, cobalt, chromium, copper, mercury, molybdenum, lead, tin, or vanadium – were associated with young-onset breast cancer.


**Sister Study researchers found that women who ate breakfast every morning were less likely to be or become obese, compared to women who irregularly ate breakfast (3-4 days a week).** On the other hand, women who never ate breakfast were also less likely to be obese than those who irregularly ate breakfast. The bottom line is that having a consistent meal pattern seems to be important for maintaining a healthy weight.


**Sister Study participants reported artificial light exposure.**

Many Sister Study participants reported exposure to artificial light while sleeping, including having a small nightlight or light from clock radios on in the room (40%), light from outside the room (31%) or a light or television on inside the room (12%). Exposure to any of these was associated with being overweight or obese upon study enrollment, with stronger associations seen for those reporting lights or television on in the room while sleeping. Women who had exposure to artificial light while sleeping were also more likely to gain weight after baseline. Though we cannot confirm that the relationship is causal, our findings provide evidence that lowering exposure to light while sleeping may be a useful intervention for obesity prevention.


[https://jamanetwork.com/journals/jamainternalmedicine/article-abstract/2735446](https://jamanetwork.com/journals/jamainternalmedicine/article-abstract/2735446)

As always, please contact us at the Sister Study helpdesk toll-free at 877-4SISTER (877-474-7837) or email us at update@sisterstudy.org if you have issues or questions.