

# Light at Night

Light at night is exposure to light during hours when it is normally dark. Exposure to outdoor and indoor light at night at home or in the workplace can increase breast cancer risk.

## Science Summary

Studies have shown an increased incidence of breast cancer in those exposed to artificial light at night and those working night shifts. The International Agency for Research on Cancer (IARC) considers night-shift work a probable human carcinogen.

Light at night may affect breast cancer risk through circadian rhythm disruption and/or reduced production of melatonin, a hormone that plays a role in our sleep.

A study based on a large Sister Study cohort (women whose sisters had breast cancer) also showed an association between leaving the lights or television on while sleeping and a higher risk for ER+ breast cancer.

A study of

**164 Countries** 



found that those with the highest  
**light at night** had a

**30-50%** higher risk of  
breast cancer.

A nationwide study in the  
United States showed a

**14%**

increase in the risk of breast cancer in  
areas identified as having the highest  
level of **outdoor light at night**.



Recent data suggest that exposure to smartphones and computer screens in the evening, before heading to sleep, may also be an impacting source of light at night.

## What can I do for my own body and health?

There are actions you can take to reduce your breast cancer risk from light at night, which include:



Sleep in as dark a room as possible by using blackout curtains, a sleep mask, or other means to block out light.



Get outside during the day. The more daytime sunlight you get, the more you can offset the impact of exposure to light at night.



Turn off screens (TV, smartphones, tablets, etc.) at least two hours before bedtime.



Take advantage of “night shift” display options on devices, and if buying new devices, check to see if this option exists before purchasing. If you need to use lights at night, consider using red light bulbs.



If possible, maintain a regular schedule of activity and rest, going to sleep and waking up at the same time each day.

## How can I navigate and get support with any systemic barriers to my health?

Considerable light pollution exists where people live in high concentration. Streetlights, highways, office buildings, stores, and other facilities are significant sources of ambient light. In some areas, facilities that run all night often have bright lights shining outdoors.

Shift work plays an important role in our society and economy, and many professions and jobs require working during nighttime hours. One example is the expected growth of agricultural work at night as climate change leads to elevated daytime temperatures.

## What can I do to support the health of my family and friends, and my community?

People are often surprised to hear that light at night increases breast cancer risk. Talk with your family, friends, and communities about the connection between light at night and breast cancer, and ways they can protect themselves.

If you work in a job or workplace that includes night shift work, educate your coworkers about the risk and how to mitigate it, such as getting outdoors during daylight hours.

## How can I help advocate for and support systemic change to remove barriers to health?

All of these sources of light can be mitigated through implementing best practices and/or changing city and county ordinances for lighting.

As we increase our understanding of how to mitigate the impact of shift work as it relates to breast cancer, we can develop policies and schedules that protect workers, while also getting the job done.

Here are some ways to get involved with systems-level action to reduce breast cancer risk:



Work with your city council and zoning board to implement policies that minimize light pollution in your community without sacrificing safety.



Educate night shift workers who are exposed to night-time light about the benefits of exposure to daylight and encourage them to get regular exposure to daylight.



Work with city leaders and businesses to provide free blackout curtains, sleep masks, and information on other strategies to reduce residents' exposure to nighttime light near facilities with bright outside lighting.



Reduce outdoor night-time light by using strategies such as lighting only necessary areas, minimizing glare, reducing brightness, and using motion sensors.



Ask local leaders to adopt city- or county-wide lighting ordinances, which set standards that reduce light pollution.



Identify and implement best practices to mitigate workplace night-time light exposures while maintaining a safe work environment.



Learn more and get involved.

**TOGETHER, WE CAN  
MAKE CHANGE!**

**Breast Cancer Prevention Partners (BCPP)** is the leading science-based advocacy organization working to prevent breast cancer by eliminating our exposure to toxic chemicals and other environmental exposures linked to the disease.



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