

# The Telegraph

## Energy saving light bulbs 'could trigger breast cancer'

Energy saving light bulbs could result in higher breast cancer rates if used late at night, an academic has claimed.



Energy saving light bulbs cast a bluer light than filament bulbs, mimicing daylight more closely



By [Stephen Adams](http://www.telegraph.co.uk/journalists/stephen-adams/) (<http://www.telegraph.co.uk/journalists/stephen-adams/>), Medical Correspondent

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Abraham Haim, a professor of biology at Haifa University in Israel, said that the bluer light that compact flourescent lamps (CFLs) emitted closely mimiced daylight, disrupting the body's production of the hormone melatonin more than older-style filament bulbs, which cast a yellower light.

Melatonin, thought to protect against some breast and prostate cancers, is produced and secreted by the brain's pineal gland around the clock.

Highest secretion levels are at night but light depresses production, even if one's eyes are shut.

A possible link between night time light exposure and breast cancer risk has been known for over a decade, since a study was published showing female shift workers were more likely to develop the disease.

Prof Haim explained that a recent study by himself and fellow colleagues had found a much stronger association than previous research between night-time bedroom light levels and breast cancer rates.

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[Night lights 'could cause depression' \(http://www.telegraph.co.uk/health/healthnews/8102204/Night-lights-could-cause-depression.html\)](http://www.telegraph.co.uk/health/healthnews/8102204/Night-lights-could-cause-depression.html)

[iPads 'bad for sleep' \(http://www.telegraph.co.uk/technology/news/7731807/Using-laptops-or-iPads-just-before-bed-increases-risk-of-insomnia.html\)](http://www.telegraph.co.uk/technology/news/7731807/Using-laptops-or-iPads-just-before-bed-increases-risk-of-insomnia.html)

[EU light bulbs offer dim future \(http://www.telegraph.co.uk/news/worldnews/europe/eu/6110547/Energy-saving-light-bulbs-offer-dim-future.html\)](http://www.telegraph.co.uk/news/worldnews/europe/eu/6110547/Energy-saving-light-bulbs-offer-dim-future.html)

[Inquiry into artificial light's link to cancer \(http://www.telegraph.co.uk/news/uknews/1572769/Inquiry-into-artificial-lights-link-to-cancer.html\)](http://www.telegraph.co.uk/news/uknews/1572769/Inquiry-into-artificial-lights-link-to-cancer.html)

['Green' light bulbs could damage the environment if dumped in landfill \(http://www.telegraph.co.uk/earth/earthnews/7545176/Green-light-bulbs-could-damage-the-environment-if-dumped-in-landfill.html\)](http://www.telegraph.co.uk/earth/earthnews/7545176/Green-light-bulbs-could-damage-the-environment-if-dumped-in-landfill.html)

[Free eco-light bulbs 'cost £45' \(http://www.telegraph.co.uk/finance/personalfinance/consumertips/household-bills/7511375/Free-energy-saving-bulbs-cost-45.html\)](http://www.telegraph.co.uk/finance/personalfinance/consumertips/household-bills/7511375/Free-energy-saving-bulbs-cost-45.html)

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[Their study \(http://www.international-light-association.org/pdf/CBI-Urban-Light.pdf\)](http://www.international-light-association.org/pdf/CBI-Urban-Light.pdf), published in the journal *Chronobiology International*, found breast cancer rates were up to 22 per cent higher in women who slept with a light on, compared to those who slept in total darkness.

They thought one of the reasons for this stronger link could be that people had switched to using energy saving lightbulbs.

They wrote: "In the past decade, light bulbs emitting bluer light waves (~460 nm) have been widely introduced to save energy consumption and reduce CO2 emission."

They quoted another study which showed that exposure to bluer, shorter wavelength light for two hours in the late evening suppressed melatonin production more than the same exposure to yellower light (~550nm), which is more typical of filament bulbs.

The bluer light also made people more alert and increased their body temperature and heart rate.

Prof Haim thought this was because the bluer light from eco-lightbulbs mimiced the stronger light of midday closer than filament bulbs did.

Speaking to *The Daily Telegraph*, he said he had subsequently removed eco-friendly lightbulbs from his house, as he thought they caused "light pollution".

He said: "Around the world the advice is to change the lights to 'green' bulbs - but they are not really green. They pollute much more light."

Because people thought they were so cheap to run, they were turning on more lights at home, he explained.

He emphasised that the study did not prove that using eco-friendly light bulbs late at night or overnight resulted in higher breast cancer rates than using filament bulbs, and that it remained an unproven theory.

British cancer charities echoed that point.

Jessica Harris, senior health information officer at Cancer Research UK, said: "As this study didn't investigate low energy 'eco' light bulbs and there isn't any other evidence that they have an effect on breast cancer risk we can't draw any conclusions about the risk of breast cancer from low energy light bulbs.

"Although it's far from settled, the evidence that light at night – from any source - could affect breast cancer risk is strengthening and the World Health Organisation classify shift working as a 'probable' cause of cancer."

Dr Sarah Rawlings, head of policy at Breakthrough Breast Cancer, said the link was "purely speculative".

"We know there are a number of lifestyle, genetic and environmental risk factors associated with breast cancer, which require more research," she said.

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