

Long term night shifts linked to doubling of breast cancer risk

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Shift work has been suggested as a risk factor for breast cancer, but there has been some doubt about the strength of the findings, largely because of issues around the assessment of exposure and the failure to capture the diversity of shift work patterns. Several previous studies have also been confined to nurses rather than the general population.

In this study, the researchers assessed whether [night shifts](#) were linked to an increased risk of breast cancer among 1134 women with breast cancer and 1179 women without the disease, but of the same age, in Vancouver, British Columbia, and Kingston, Ontario.

The women, who had done various different jobs, were asked about their shift work patterns over their entire work history; hospital records were used to determine tumour type.

This may be important, say the authors, because risk factors vary according to hormone sensitivity, and the sleep [hormone melatonin](#), disruption to which has been implicated in higher breast cancer risk among [night shift workers](#), may boost oestrogen production.

Around one in three women in both groups had worked night shifts. There was no evidence that those who had worked nights for up to 14 years or between 15 and 29 years had any increased risk of developing breast cancer.

But those who had worked nights for 30 or more years were twice as

likely to have developed the disease, after taking account of potentially influential factors, although the numbers in this group were comparatively small.

The associations were similar among those who worked in healthcare and those who did not. Risk was also higher among those whose tumours were sensitive to oestrogen and progesterone.

The suggested link between breast cancer and shift work has been put down to melatonin, but sleep disturbances, upset body rhythms, vitamin D or lifestyle differences may also play their part, say the authors.

"As shift work is necessary for many occupations, understanding which specific shift patterns increase [breast cancer risk](#), and how night [shift work](#) influences the pathway to [breast cancer](#), is needed for the development of healthy workplace policy," conclude the authors.

More information: [www.oem.bmj.com/lookup/doi/10. ...
36/oemed-2013-101482](http://www.oem.bmj.com/lookup/doi/10.1136/oemed-2013-101482)

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