

Researchers shed new light on cancer risks associated with night work

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Night work can increase cancer risk in men, according to a new study published in the *American Journal of Epidemiology* by a research team from Centre INRS–Institut Armand-Frappier and Centre de recherche du Centre hospitalier de l'Université de Montréal. The study is one of the first in the world to provide evidence among men of a possible association between night work and the risk of prostate, colon, lung, bladder, rectal, and pancreatic cancer and non-Hodgkin's lymphoma.

"Exposure to light at night can lead to a reduced production of the sleep [hormone melatonin](#), inducing physiological changes that may provoke the development of tumours. This hormone, habitually released in the middle of the night in response to absence of light, plays a pivotal role in hormonal functions and in the immune system", explained Professor Marie-Élise Parent of Centre INRS–Institut Armand-Frappier, the study's lead investigator.

Despite finding that night work increases the risk of a number of cancers, the researchers are intrigued by the absence of a relationship between duration of night work and [cancer risk](#) found in the study. In theory, an increasing duration in the period of night work would be expected to be accompanied by an increase in the risk of cancer, but the results obtained did not confirm such a tendency. As well as opening up new research avenues, this finding raises questions about the factors that might influence people's adaptation to night work. Other more targeted research, including Dr. Parent's current research on [prostate cancer](#), will also allow for a more detailed study of the consequences of night work

on health.

For this research, Dr. Parent and her team analyzed data from a study on [occupational exposure](#) and cancer that was conducted between 1970 and 1985, involving 3,137 men aged 35 to 70 years who had been diagnosed with a cancer at 18 hospitals in the Montreal metropolitan area, compared to a control group of 512 cancer-free individuals from the general population.

The epidemiological study by Marie-Élise Parent, Mariam El-Zein, and Marie-Claude Rousseau of Centre INRS–Institut Armand-Frappier and Javier Pintos and Jack Siemiatycki of Centre de recherche du Centre hospitalier de l'Université de Montréal and Université de Montréal was funded by Health Canada, the National Cancer Institute of Canada , Quebec's Institut de recherche Robert-Sauvé en santé et sécurité au travail, and Fonds de recherche du Québec - Santé (FRQS).

More information: The article is available at [aje.oxfordjournals.org/content ... /aje.kws318.abstract](https://aje.oxfordjournals.org/content/178/10/1518.full)

Provided by INRS

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