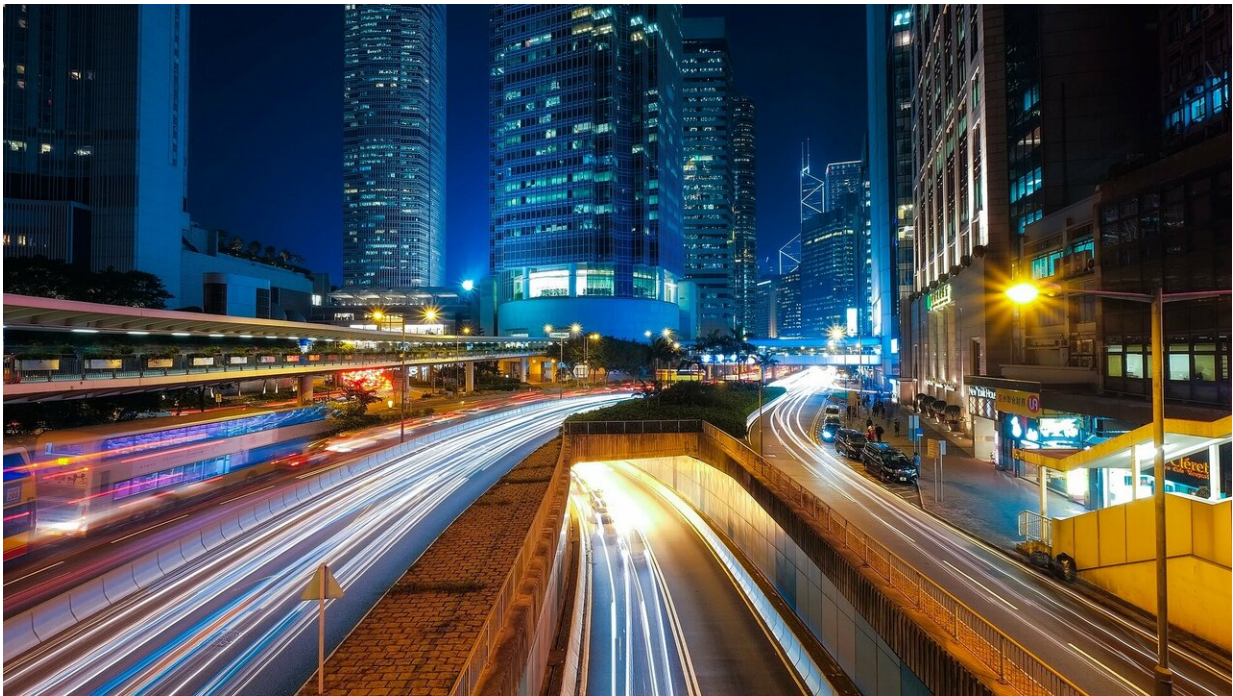


Largest ever study on light exposure proves its impact on mental health

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The world's largest study on light exposure and its impact on mental health, with almost 87,000 participants, has found that increased exposure to light at night increases a person's risk for psychiatric disorders such as anxiety, bipolar and PTSD severity as well as self-harm. Importantly, the study also found that increasing exposure to daytime light can act like a non-pharmacological means for reducing

psychosis risk.

In those exposed to high amounts of light at night, the risk of depression increased by 30%—while those who were exposed to high amounts of light during the day reduced their risk of depression by 20%. Similar patterns of results were seen for self-harm behavior, psychosis, [bipolar disorder](#), Generalized Anxiety Disorder, and PTSD. These findings indicate that the simple practice of avoiding light at night and seeking brighter light during the day could be an effective, non-pharmacological means of reducing serious [mental health](#) issues.

The study, led by Associate Professor Sean Cain, from the Monash School of Psychological Sciences and the Turner Institute for Brain and Mental Health in Melbourne, Australia, is published today in the journal, *Nature Mental Health*.

"Our findings will have a potentially huge societal impact," said Associate Professor Cain. "Once people understand that their [light exposure](#) patterns have a powerful influence on their mental health, they can take some simple steps to optimize their well-being. It's about getting bright light in the day and darkness at night."

The study's 86,772 participants were all from the UK Biobank, and were examined for their exposure to light, sleep, physical activity and mental health. Associate Professor Cain said the impact of night light exposure was also independent of demographic, physical activity, season and employment.

"And our findings were consistent when accounting for shiftwork, sleep, urban versus rural living and cardio-metabolic health," he said.

Humans in modern, industrialized times have literally turned our biological systems upside down. According to Associate Professor Cain,

our brains evolved to work best with [bright light](#) in the day and then with almost no light at night.

"Humans today challenge this biology, spending around 90% of the day indoors under [electric lighting](#) which is too dim during the day and too bright at night compared to natural light and dark cycles. It is confusing our bodies and making us unwell," he said.

More information: Angus C. Burns et al, Day and night light exposure are associated with psychiatric disorders: an objective light study in >85,000 people, *Nature Mental Health* (2023). [DOI: 10.1038/s44220-023-00135-8](#)

Provided by Monash University

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