- Lighting / Bed time

Moonlight, phone screens, and standby LEDs can hinder sleep or cause a disturbing effect on restful sleep

DARK BEDROOM

Is your bedroom too bright?



A new study found that even as little light as from a phone screen at low brightness during sleep is linked to potentially harmful changes in the heart's structure and function.

Light pollution during night sleep - as little as moonlight or light coming through a door gap - takes a toll on human hearts, according to a new study published in the European Heart Journal.

"Exposure to higher levels of light at nighttime is linked to cardiac remodelling," Lu Qi from Tulane University, New Orleans, USA, who led the research, said in a press release. "This is where the structure and function of the heart changes and we typically see it in response to chronic stress or injury to the heart."

While that's how the human body adapts to that stress, "ultimately it weakens the heart and can lead to heart failure," he said.

Therefore, keeping bedrooms as dark as possible "should be considered as one of the potential strategies for preventing heart disease by clinicians and policy makers," Qi said.

The study included 11,071 people who were exposed to different levels of light overnight for a week, from near total darkness to varying levels of light up to light equivalent to a phone screen at low brightness on light coming through a cracked door.

Three years later, participants were given a cardiovascular magnetic resonance scan to examine any potential changes to the structure and function of their hearts.

The results showed that participants who were exposed to the highest levels of nighttime light saw the walls of the left chamber of their heart thicken, reducing the space inside the ventricle. There were also signs that the heart's ability to flex during a heartbeat was reduced - an early indication of heart dysfunction.

"Darkness deserves recognition as a vital sign, as essential to cardiovascular health as blood pressure control and clean air," an accompanying editorial professor, Thomas Münzel, from University Medical Center Mainz, Germany and colleagues said.

They turned to clinicians, urging them to ask about sleep environment: "how dark the bedroom is, whether the patient works night shifts, and how much screen use occurs after sunset," they said, advising using blackout curtains, warm-coloured bedside lighting, and covering the small standby LEDs on household electronics.

Municipalities also have a role to play, with light pollution being "one of the few environmental hazards that cities can control directly and affordably," they said, listing shielded fixtures, warm-spectrum bulbs, and dimming or motion-activated streetlights as "energy-efficient, and climate-friendly" ways to reduce light exposure.

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