

Our town

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Say goodnight to blue light

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IN AN effort to encourage Toowoomba locals to get a decent night's shut-eye, one engineering and technology expert is urging device users to tone down their blue light to significantly up their melatonin levels.

Senior lecturer in the School of Mechanical and Electrical Engineering at the University of Southern Queensland, Dr Andrew Maxwell said there was an ever increasing number of children and adults failing to get a decent night's sleep and the answer was literally in the palm of their hands.

"Research shows the blue light from our computer displays, phones and television screens play a big role in affecting our circadian rhythm and melatonin production, which is essential for deep, effective sleep cycles," he said.

"There are special cells in the eyes called "intrinsically photosensitive retinal ganglion cells (ipRGCs)", which link directly to the part of the brain responsible for our internal "clock".

"These cells are very sensitive to blue light, and when triggered cause the production of melatonin, a substance that decreases the production of sleep-inducing melatonin in the brain, and makes it so much harder to get to sleep.

"That's why staying up at night and watching streaming services, or videos on the internet can make you feel slow and sluggish the next day, where the blue light from the screen delays melatonin production by an hour, to an hour and half and this in turn upsets your entire sleep pattern.

"This tiredness could also affect and increase blood pressure, creating additional

stress and anxiety, and even suppress immune function."

Dr Maxwell said there was an easy way to reduce the impacts of tech-derived blue light.

"If you want a proper night's sleep, decide what time you want to go to bed, and then an hour and a half beforehand, switch off those electronic displays, put down those devices and where possible have a more amber coloured light around you.

"This will give your body enough time to produce the melatonin it needs to get into a good night's sleep."

"If you really must watch something, or answer emails, or do something on a device, I recommend switching the display settings to a 'night shift' or 'night mode', which reduces the amount of blue light produced by the display and changes the on-screen colours to a much warmer, amber tone."



FEELING BLUE: Dr Andrew Maxwell from USQ has a solution to your sleeping woes.