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THE EFFECT ON SLEEP

Not getting your full eight hours? Taking your phone to bed could be the problem.

Neurologists have known for years that staring at screens late in the evening can disrupt sleep. Yet more and more of us are taking mobiles and tablets into the bedroom, where we hold them right in front of our eyes for extended periods of time before we try to nod off.

Browsing Facebook on your tablet disrupts your body's circadian rhythm - its ability to "do the right thing at the right time" - says Mariana Figueiro of Rensselaer Polytechnic Institute's Lighting Research Center. Playing our favourite game not only makes us feel alert when we should be winding down, but also fires blue light at our retinas. Shorter in wavelength than the white light produced by lamps, it stops our bodies from producing the sleep hormone melatonin. The pineal gland would normally start to release melatonin into the bloodstream a couple of hours before our typical bedtimes, signalling "lights out" to our body.

Not noticed this effect? Figueiro's research shows that some people are more sensitive to light than others. Data from her lab suggests that melatonin is suppressed to a greater extent in teenagers than in university students, for example.

And the knock-on effects of delayed and disrupted sleep may stretch far beyond making it hard to get up in the morning. "Long-term suppression of melatonin has been linked to sleep disorders, which in turn have been linked to diabetes and obesity," Figueiro adds. "In animal models, prolonged suppression of melatonin and disruption of circadian rhythms has also been linked to an increased risk of cancer."