



## Health

### How technology use messes with your sleep and what you can do about it

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#### **In the habit of playing games on your phone or checking social media as the last thing you do before bed?**

Even if you don't think you have a sleep problem, your night-time habits might be reducing your quality of life more than you think, experts say.

Research has shown a clear link between technology use before bed and compromised sleep that affects our health and wellbeing.

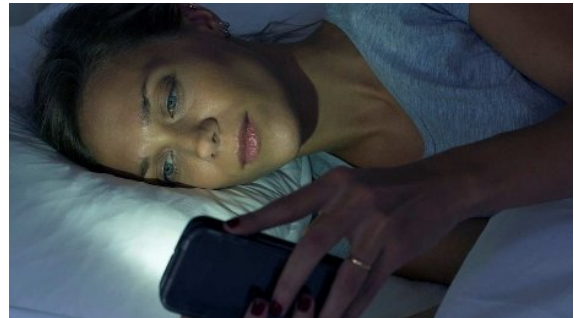
While effects can vary from person to person, it may be as subtle as your thinking not being as sharp as it could be, your energy a bit sluggish, your vigilance a bit down, your mood a bit less stable.

As [South Australian sleep researcher Dr Sarah Blunden puts it](#): "Sleep is the foundation of all physical and mental health essentially. That sounds very radical but it's true."

As well as making us feel below par, poor sleep has been linked with an increased risk of developing anxiety, depression, weight gain, reduced immunity, and some studies have found there's a relationship between sleep deprivation and high blood pressure or heart disease.

But when we asked you recently to tell us about your snooze habits by filling out our Sleep Snapshot questionnaire, [it was clear the no tech before bed rule was being widely ignored.](#)

Our phones were revealed as especially irresistible, with more than half of respondents using smartphones



[Blue light suppresses production of brain chemicals that make us sleepy.](#) (Istockphoto: PhotoAlto/Frederic Cirou)

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### The dark side of blue light

- Light from screens shining into your eyes sends signals to your brain that interfere with the production of melatonin, a chemical needed for sleep.
- Although all wavelengths of light have this effect, blue light is particularly problematic. Blue light is so good at helping us feel awake, it's used in places like factories to help night workers stay alert.
- Repeated use of a bright screen in the evening over five nights can delay the body clock by 1.5 hours, the Sleep Health Foundation says. This means you want

in the hour before bed and 35 per cent actually taking them to bed with them.

Given this, it's important to understand some key facts about how night-time tech use might be keeping you from functioning at your best and what you might be able to do about it.

## How technology use affects sleep

Technology use in the evenings may make it harder to drop off to sleep and can also reduce the quality of sleep and make you feel sleepier the next day.

Using a screen for 1.5 hours or more seems to be when problems start, although not everyone is affected the same way.

The impacts on sleep are related to both the stimulating effects of interacting with a device and the effects of light from the screen.

Passive activities like reading an e-book or watching a movie are thought to be less disruptive than interactive ones like playing a video game, making posts, or messaging.

## Tech particularly bad for teen sleep

The risk from intense light is especially significant for teenagers.

This is because teenagers need more sleep (8-10 hours vs 7-8 for most adults) and also because changes in the brain mean teens already have a delayed sleep-wake pattern.

Teenagers also love to be engaged with other teens, and are especially fearful of "missing out" on well, pretty much anything. This creates something of a perfect storm for a sleep problem to develop.

**Says sleep physician Dr Chris Seton:** "The screens not only take away sleep because they take up time, but they make kids more wakeful, and the more wakeful they are, the more activity they do, so it's a vicious cycle."

And the evidence is this problem's getting worse.

Between 2010 and 2016 there's been a significant increase in complaints of inadequate sleep among 18-24 year-olds, with 60 per cent of this age group now affected, Professor David Hillman, chair of Australia's Sleep Health Foundation said.

There is also emerging evidence this is resulting in an increased risk of behavioural disorders in young people.

## Reducing the impact of screens on sleep

to go to bed later and sleep in longer, which is a problem when work or study schedules call for an early start.

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## Digital detoxing in the real world



## How can we manage our technology so we're not slaves to our phones?

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So are there any sneaky tricks and measures that can get around the alerting problems of screens?

Here are some that respondents found helpful and offered to share with others when they filled out the Sleep Snapshot questionnaire:

- "I recently discovered I can red-shift my iPhone light to take out the blue light and it's set to do this between 9pm and 7am."
- "Put electronic devices in another room (my phone goes on charge in the kitchen). If you must sleep with a phone in your room (eg: on call), turn off notifications."
- "Use the do not disturb function on your phone so urgent calls can come through but no noisy notifications."
- "Have a technology-free period before bed and read an actual book."

Clearly, some of you are onto something because there's overlap with recommendations from experts at The Sleep Health Foundation:

- Dim the screen on devices as much as possible at night
- Reverse the setting on e-readers so that the type is white on a black background, rather than the other way round.
- Consider using a free software program for PCs and laptops called f.lux which decreases the amount of blue light from screens.
- Try the different apps, screen protectors and in some cases, inbuilt night settings that reduce blue light on phone screens.
- Try to restrict technology use, especially the most stimulating kind, to earlier in the evening.

If you're feeling particularly exploratory (and indifferent to perhaps looking a little goofy), you could also try wearing orange-tinted glasses (which block blue light). There's some [limited evidence](#) they work.

## A radical rethink

But experts like Professor Hillman believe it's worth going further than these measures and asking yourself a more fundamental question that some might consider radical: Are you simply doing too much?

Sure, technology can entertain, engage and enthrall us, but that doesn't mean we shouldn't have times where we decide to simply turn it off, he argues.

"We've got all these tools. We don't have dark and silence anymore. We have light and activity. And we can have that any time we want. Some of us continue to partition that off from our sleep time but a lot of us don't," he said.

The result is a brain that is "full on and tries to switch off. But it can't, because it's just overloaded.

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"Sleep is under pressure. It's that bit of life people feel is dispensable. Unfortunately, the physiological facts are that it's not," he said.

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