

Detecting the effects of blue light on kids' vision

A screen may be a child's distraction, but to young eyes it can be a disturbance. Children begin carrying digital devices from the moment their dimpled fingers can carry them – 72 percent of kids aged eight and younger had used tablets or smartphones by 2013, and more than one third of them were under the age of two.¹

While the experience may make them tech-savvy and dexterous, the effects of blue light emanating from the screens of video games, cell phones, tablets, computers and televisions can affect kids' vision and their overall health, research shows.

That does not mean children have to completely power down, though. Parents can manage digital exposure with a few changes of habit, and protection.

WHY SO BLUE?

Blue light, part of a light spectrum that is visible to the human eye, provides basic illumination and can also enhance feelings of well-being.² This may explain why children are so easily drawn to the glow of their handheld devices.

But the effects of blue light on vision can be wide ranging and potentially damaging, depending on the length of a kid's screen time. This is because their maturing eyes haven't yet developed the protective pigments to help filter out some of the harmful blue light that comes from all that time in front of the screen.³

Among the leading risks of blue light exposure is that it suppresses the release of melatonin, the hormone that tells us when it is time to sleep. An extended lack of deep sleep can in turn contribute to behavioral issues and weight gain due to overeating.⁴



ONE HOUR
Amount of time
doctors recommend
between screen
time and bedtime⁴

PROTECT KIDS' EYES

One of the easiest way to protect a child's eyes from the effects of blue light is to call time out on their electronic devices. Put at least an hour between screen time and bedtime, some doctors suggest.⁴ In the interim, you could encourage the child to read a book.

You also can dim the screens of all devices, which should limit the amount of blue light coming through.

Lastly, you can opt for eye protection. Yellow polycarbonate lenses or goggles are reported to offer defense from blue light in many cases.⁵ Similarly, ask your eye doctor if he or she could recommend a blue-filtering lens.

Standing between a child and his or her device won't always be easy, but by developing some of these practices early the child will adjust. And who knows? Maybe he or she will be just as happy reading a book.

SEE THE GOOD STUFF

For more articles to keep your vision healthy and sharp, visit eyesiteonwellness.com

¹"More Than 33 Percent of Kids Under Two Use Tablets So Prepare for an Army of Robot Babies," by Noah Rayman, Time, Oct. 28, 2013 <http://newsfeed.time.com/2013/10/28/more-than-33-percent-of-kids-under-two-are-using-tablets-so-prepare-for-an-army-of-robot-babies/>

²"Effects of Blue Light Exposure on Your Eyes," by Troy Bedinghaus, OD, <https://www.verywellhealth.com/blue-light-exposure-3421985>. Accessed December 2019.

³"Ultraviolet A, Blue Light and Children," by Elaine Kitchel, Low Vision Research Associate, <https://www.tsbvi.edu/seehear/fall99/ultraviolet.htm>

⁴"Why Electronics May Stimulate You Before Bed," National Sleep Foundation, <https://www.sleepfoundation.org/articles/why-electronics-may-stimulate-you-bed>. Accessed December 2019.

⁵"Ultraviolet A, Blue Light and Children," by Elaine Kitchel, Low Vision Research Associate, <https://www.tsbvi.edu/seehear/fall99/ultraviolet.htm>

