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## Blue Light: The Eye-Opening Truth

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### Article

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**RED BANK, New Jersey** (Achieve3000, February 24, 2021). There's no getting away from it. It's coming right at you, right now. In fact, it's beaming from the screen displaying these very words. Relax. Blue light is all around, all day long, but there's no need to panic.

Blue light has gotten lots of attention lately. One reason is that people spend a lot of time eyeballing screens, which are rumored to deliver dangerous doses of it. But you might be wondering—what *is* blue light? How does it affect our vision and health? The illuminating answers to these questions will help you learn the truth and protect your precious peepers.

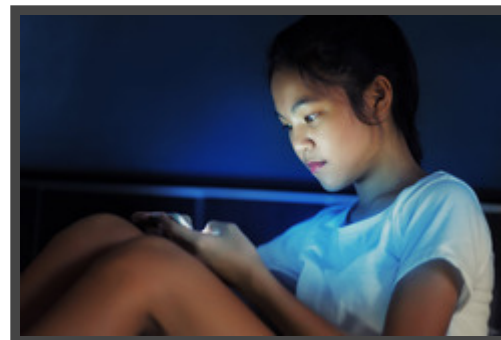


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*The screens of phones give off a lot of blue light.*

### What Is Blue Light?

Blue light comes from natural and artificial sources. It's emitted by the sun and indoor lighting, as well as the screens of TVs, computers, smartphones, and tablets. People are exposed to blue light whenever they check their phones, switch on a lamp, or take a morning stroll outdoors.

That's because blue light is just one of the many different colors of visible light that make up sunlight and the light from a screen. In fact, visible light shines in red, orange, yellow, green, blue, indigo, and violet. Screens of electronic devices give off a lot of blue light, but the sun is the main source of the blue light our eyes take in. A screen doesn't give off nearly as much blue light as you'll encounter being outside on a bright day.

### The Effects of Blue Light

Good news! Research shows that blue light helps people think clearly and feel more alert. Getting plenty of natural blue light during the day can regulate your circadian rhythm, helping you snooze soundly through the night.

But blue light may have a dark side, too. Being exposed to too much blue light at night can throw off a person's circadian rhythm. And the lengthy hours people spend gazing at screens has raised concerns about other possible adverse effects. Scientists are studying whether blue light from screens might cause long-term eye damage. However, the American Academy of Ophthalmology (AAO) says so far there's no evidence of that.

### Protect Yourself

Blue light might not be as harmful as some people fear, but that doesn't mean spending umpteen hours glued to a screen is good for people's eyes. Prolonged screen usage can lead to Digital Eyestrain (DES). Troublesome symptoms of DES include sore eyes, dry eyes, headaches, and blurry vision. While some people blame DES on blue-light overload, the AAO cites a different cause. These experts explain that when people stare at a screen, they blink only about half as often as usual.

To prevent DES and give yourself a better chance of a good night's sleep, doctors recommend trying these tips.

- **Take Breaks**

Follow the "20-20-20" rule. Look away every 20 minutes. Focus on something 20 feet (6 meters) away for at least 20 seconds.

- **Don't Get too Close**

Keep about an arm's length's distance between your eyes and the screen.

- **Block the Blue**

If you can't forego using screens at night, try special glasses or screen filters that block blue light, or use the nighttime screen settings many devices feature.

In today's world, we can't escape screens...and most people wouldn't want to. They help us learn, work, and communicate. They entertain us, too. Keep your eyes in good shape to take it all in. Prioritize protecting your eyes!

## Dictionary

**circadian rhythm** (*noun*) the brain's cycle of controlling sleep, wakefulness, and hunger

**forego** (*verb*) to give something up or do without it

**illuminating** (*adjective*) informative

**prioritize** (*verb*) to place a high level of importance on something

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## Activity

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### PART 1

#### Question 1

The Article primarily discusses \_\_\_\_\_.

- Ⓐ the research on how to reduce the dangerous effects of blue light on people
- Ⓑ the nature of blue light from the sun and screens and how it may affect people
- Ⓒ the ways that people use their electronic screens to help them learn, work, and communicate
- Ⓓ the condition of Digital Eyestrain that gives people dry eyes, headaches, and blurry vision

#### Question 2

In what way does the Article contrast blue light exposure during the day with blue light exposure at night?

- Ⓐ Blue light exposure during the day helps people stay alert, while blue light exposure at night causes eye damage.
- Ⓑ Blue light exposure during the day keeps people wide awake, while blue light exposure at night can help improve sleep.
- Ⓒ Blue light exposure during the day can help people think clearly, while blue light exposure at night affects sleep cycles.
- Ⓓ Blue light exposure during the day gives people headaches and dry eyes, while blue light exposure at night causes blurry vision.

#### Question 3

Which of these statements is **contrary** to the ideas presented in this Article?

- Ⓐ Blue light is light that's emitted solely by electronic devices with bright screens.
- Ⓑ Ophthalmologists are studying whether blue light from screens causes long-term eye damage.
- Ⓒ Exposure to too much blue light at night can throw off a person's sleep cycles.
- Ⓓ When people stare at a bright electronic screen, they blink only about half as often as usual.

#### Question 4

Which passage from the Article best supports the idea that staring at screens all day may be unhealthy?

- Ⓐ Prolonged screen usage can lead to Digital Eyestrain (DES). Troublesome symptoms of DES include sore eyes, dry eyes, headaches, and blurry vision.
- Ⓑ There's no getting away from it. It's coming right at you, right now. In fact, it's beaming from the screen displaying these very words.
- Ⓒ People are exposed to blue light whenever they check their phones, switch on a lamp, or take a morning stroll outdoors.
- Ⓓ Screens of electronic devices give off a lot of blue light, but the sun is the main source of the blue light our eyes take in.

#### Question 5

Which is the closest **synonym** for the word *illuminating*?

- (A) relenting
- (B) discounting
- (C) revealing
- (D) displeasing

Question 6

According to the Article, what is one benefit of using a screen filter?

- (A) It gives people a better chance of a good night's sleep by blocking the blue light coming from a screen.
- (B) It ensures that people blink more often when staring at a screen for a prolonged amount of time.
- (C) It forces people to look away from the screen occasionally to rest and relax their eyes.
- (D) It requires that people keep an arm's length's distance from the screen to reduce the effects of blue light.

Question 7

Read this passage from the Article:

**Screens of electronic devices give off a lot of blue light, but the sun is the main source of the blue light our eyes take in. A screen doesn't give off nearly as much blue light as you'll encounter being outside on a bright day.**

In this passage, the word *encounter* means \_\_\_\_\_.

- (A) to confront
- (B) to plunder
- (C) to fathom
- (D) to summon

Question 8

Which of these is a statement of opinion?

- (A) Blue light is just one of the many different colors of visible light that make up sunlight.
- (B) Screens give off blue light, but the sun is the main source of blue light people experience.
- (C) Being exposed to too much blue light at night can throw off a person's sleep cycle.
- (D) Special glasses are a perfect way for people to limit blue light from entering their eyes.