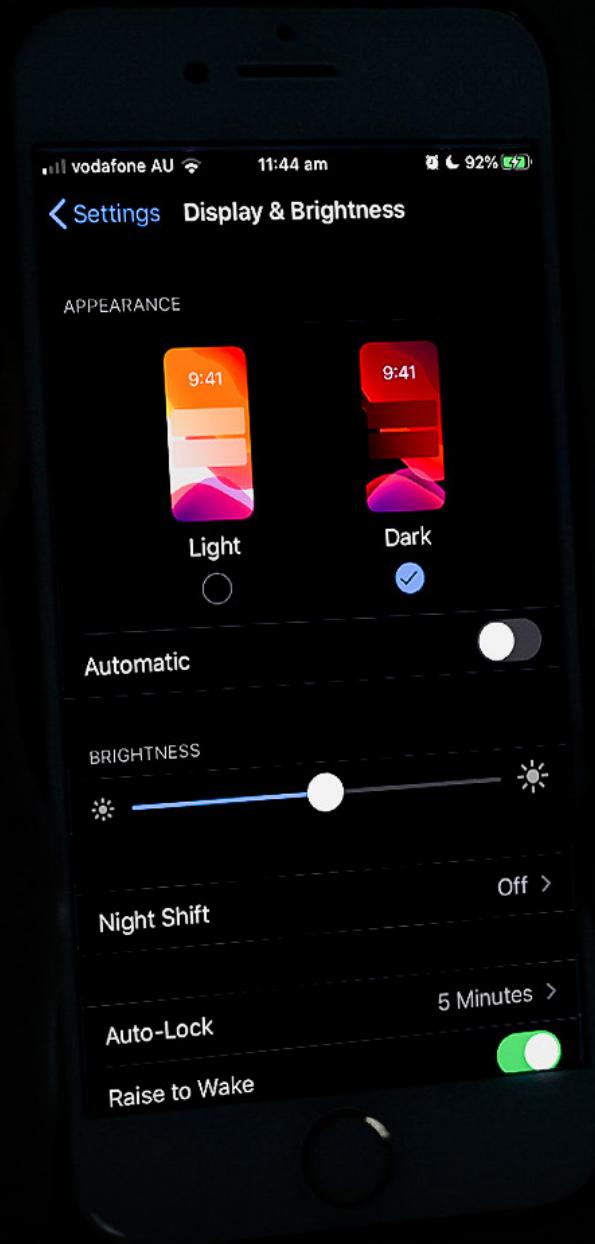*Abigail Chin*

Hello Darkness, My Old Friend

Is iPhone's dark mode better for your health?

The Dark Mode

Abigail Chin

In September 2018, Apple released the dark mode for macOS Mojave and it went beyond visual aesthetics, stating that it is easier on the eyes in low light environments. In September 2019, Apple released the dark mode for iPhone's iOS 13 and has been the conversation topic by many on the internet recently. However, there's been controversy about the dark mode being better or worse for the user's health.

Apple claims "It's thoughtfully designed to make every element on the screen easier on your eyes," on their announcement of the new feature. The dark mode can be a better experience for users with vision impairments or disorders, allowing them to use technology in ways they weren't able to before. Photophobia and keratinous are examples of disorders users may have, who experience high sensitivity to light.

With Apple's dark mode, it is less distracting to others as it does not produce as much like compared to the original light mode. Applications like Spotify have a dark display as they want the outside world to fall away so the user can spend more time on the application.

The dark mode is more beneficial for battery life, however this mainly is directed towards devices with OLED (organic light-emitting diode) displays. This is because the pixels that display pure black are turned off, thus not drawing any power which saves battery life. Apple devices that have an OLED display include iPhone XS, iPhone XS Max and the MacBook Pro Touch Bar.

Overall, the dark mode is beneficial for users who experience disorders relating to high light sensitivity and is better for the eyes in low light environments.
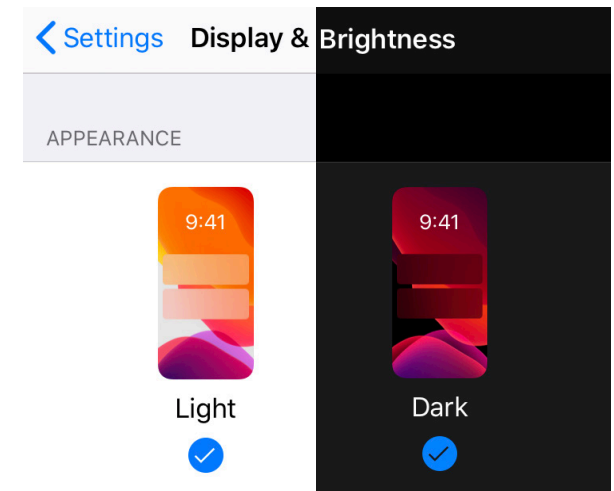
Although the dark mode is helpful for people who experience photophobia and keratinous, dark mode can worsen their eyes for people born with astigmatisms, causing blurry, fuzzy or distorted vision. For people who experience astigmatism, white text on dark background makes it harder to read as the light rays make it difficult to meet the main eye focus due to the irregular shape of the cornea. People with certain kinds of colour blindness may also find the dark mode harder to use.

When the user is using their device in a low light environment, the dark mode is a better option to use as it helps protects the eyes from traditional blinding whiteness of computer and phone screens. But during bright environments, light mode is easier on the eyes and can make you more productive. According to Adam Engst, "Light mode provides better performance in focusing of the eye, identifying letters, transcribing letters, text comprehension, reading speed, and proofreading performance."

Overall, the dark text on a light background provides a beneficial performance as it is easier on the eye when identifying letters and faster reading speed. Some old studies show that the light mode causes less visual fatigue and better visual comfort.

So is dark mode better for your health? Yes and no. Both dark and light modes have their pros and cons, and it depends on the user which display they prefer as everyone has different healths, whether that is astigmatism, photophobia or not at all. That's why Apple has both modes as an option, so the user can choose which one suits them the most. Either way, it doesn't help reduce eyestrain after spending a whole day looking at the screen. So which side are you on?

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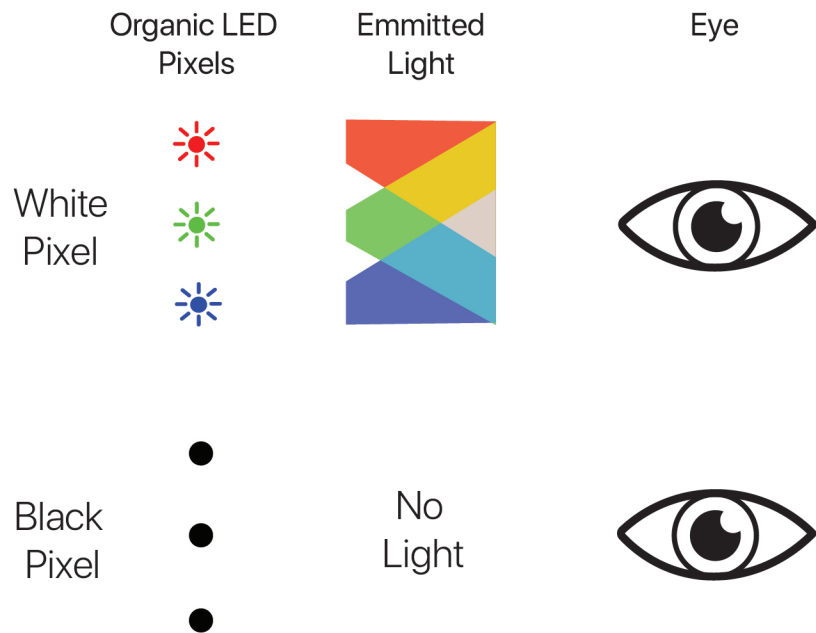
Light Mode

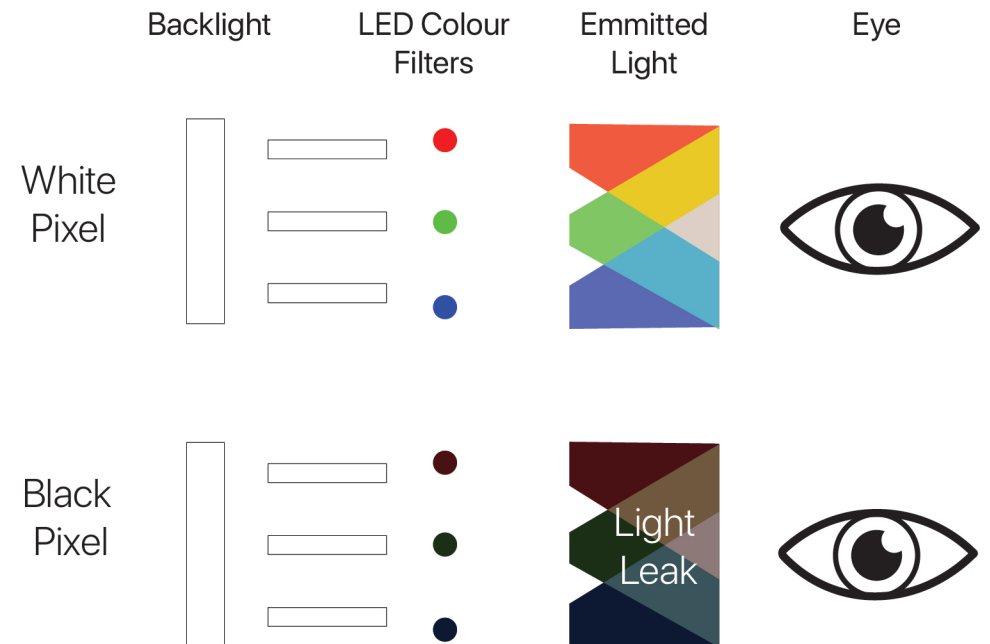| Advantages	Disadvantages
- Faster readability - "Light mode provides better performance in focusing of the eye, identifying letters, transcribing letters, text comprehension, reading speed, and proofreading performance." - Adam ww - Easier on the eyes in a bright environment and can make you more productive	- May be harder to see in low light environments - Can distract others due to brightness

Dark Mode

Advantages	Disadvantages
- Easier in low light environments - Can be a better experience for users with vision impairments or disorders such as Photophobia Keratinous - Less distracting - Good for battery life if device is an OLED display - Helps protects eyes from traditional blinding whiteness of screens	- Can be difficult to read as the iris needs to open up to get more light - Can worsen their eyes for people born with astigmatism - Doesn't help reduce eyestrain after spending a whole day looking at the screen - People with certain kinds of colour blindness may find it harder to use - May be harder to see in dimly lit environments

How OLED and LED Screen Displays Work

How to Enable Dark Mode