

Myths and truths about Blue Light



IRIS TECHNOLOGIES

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Introduction of technology

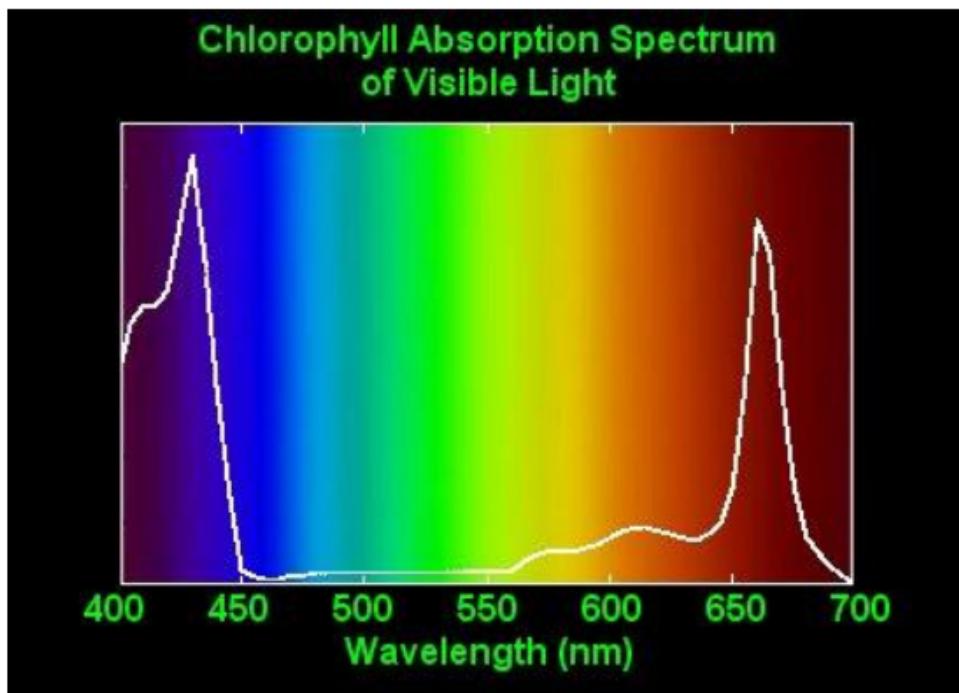
There are improved facts about blue light, in our everyday lives, another concern about our health was raised.

Precisely - **blue light**.

But as with everything that is new and unexplored yet, conspiracy theories start to lurk around every corner.

BLUE LIGHT EXPOSED

Blue light is a range of the visible light spectrum with wavelengths 400-450 nm, which makes it a type of high-energy visible light.



Where does the problem come from then and what should you know about blue light?

We are diving right into it!



Myths and truths

We have collected some of the most important facts about blue light that you should be familiar with in order to deal with it in the right way.



Blue light is not natural - MYTH

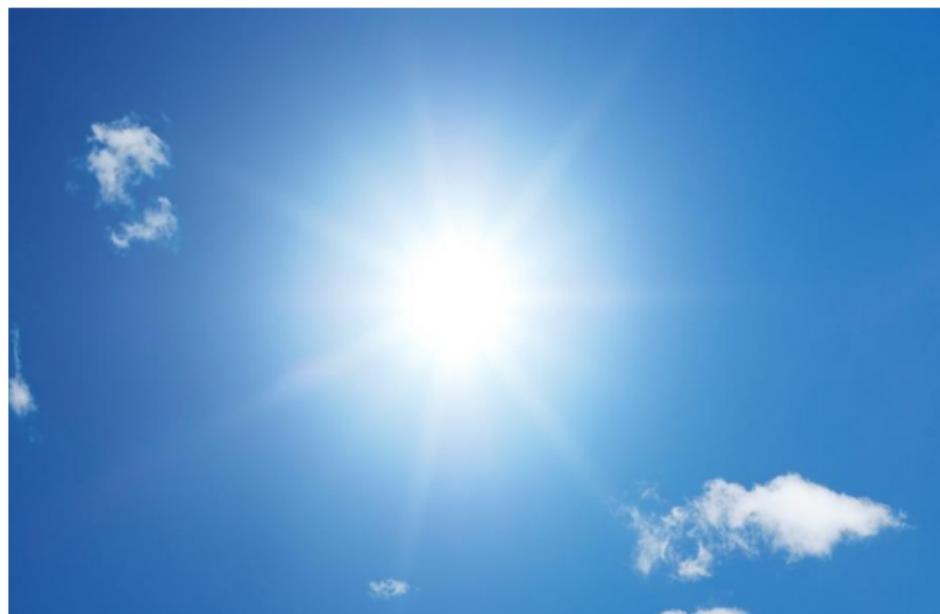
The main source of blue light is actually... the sun itself!

Sunlight contains red, orange, yellow, green and blue rays and a lot of shades of these colors.



What is more interesting, blue light is the reason why we see the sky blue.

Walking outside during the day, you are exposed to blue light.



In fact, a certain number of daylight hours can be absorbed by the human body.

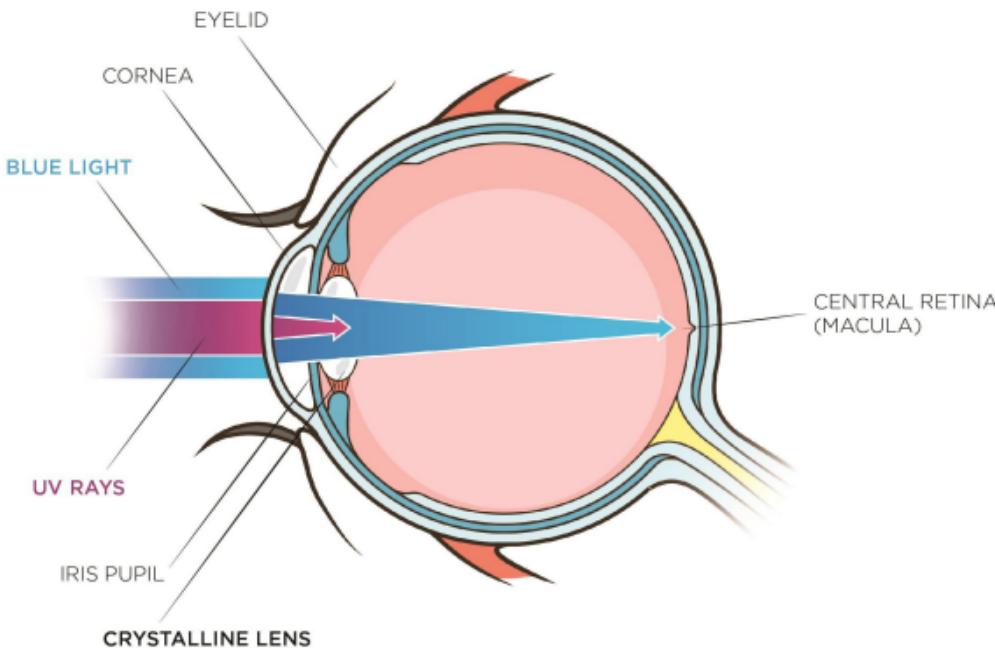
It becomes a problem when we introduce blue light at night as well - this way we disrupt our biological clock which can lead to health problems (including poor sleep, poor eye health, etc.).



Our eyes can't block blue light - TRUTH

Our eyes can successfully block UV rays from reaching the retina.

It is proven that less than 1 percent of UV radiation from the sun reaches the retina, even if you have not put your sunglasses on.



Nevertheless, it is advisable to always wear sunglasses with 100 percent UV protection since they are essential for eye health!



In contrary though, blue light can penetrate the inner structure of our eyes.

According to studies almost 100 percent of the blue light that we are exposed to, reaches our retina.



All blue light is harmful

- MYTH

You may be confused by this one but it is actually true that not all blue light is harmful.



Thanks to blue light, our bodies know when we should be awake and when we should go to sleep.



Therefore we are messing up with our circadian rhythm if we are exposed to blue light in the evening.

Try reading a paper book before bed instead of your e-reader and switch off your devices at least an hour before sleep.



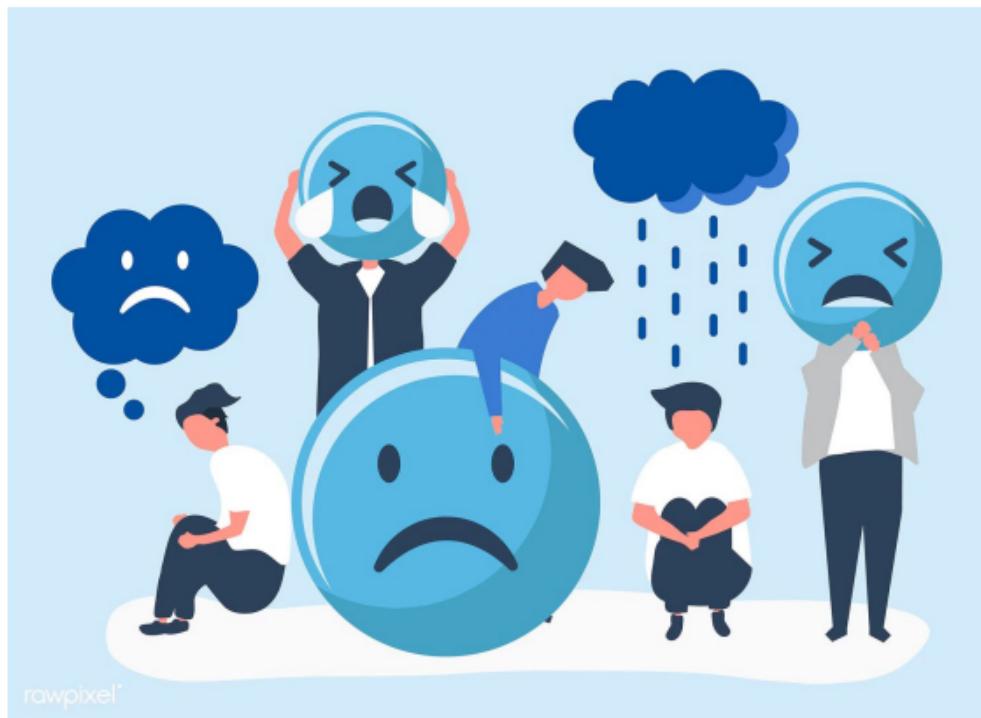
Yet, some studies have shown that certain types of blue light can have a positive impact on our bodies.



High-energy visible light boosts vigilance, helps memory and cognitive function and improves mood.

A light therapy is used to treat seasonal affective disorder (SAD) which is a type of depression related to changes in seasons.

With the right amount of blue light, the symptoms of SAD can be alleviated.



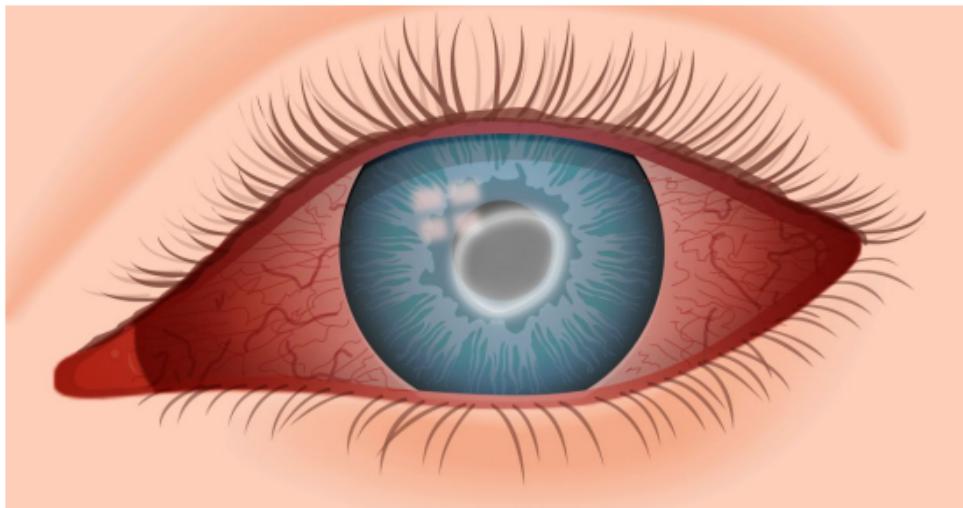
Blue light contributes to digital eye strain - TRUTH

It's been made clear that not all blue light is bad for you but too much of it can really be.

Especially for your eyes.



Your eyes can not block the blue light, therefore they become irritated when we expose them to it for a long period of time.



The symptoms may include red, dry or sore eyes, as well as headaches and blurred vision.

However, digital eye strain can be prevented with a number of precautions.



Flicker-less



Blue Light Filter



ComfyView

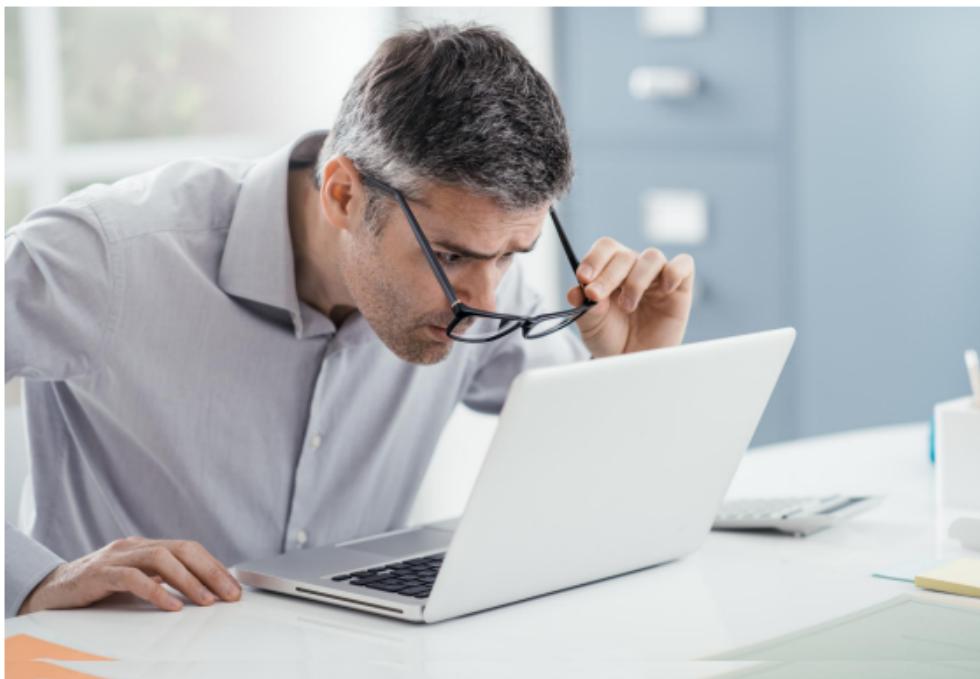


Low Dimming

Lowering the brightness of your device is enough

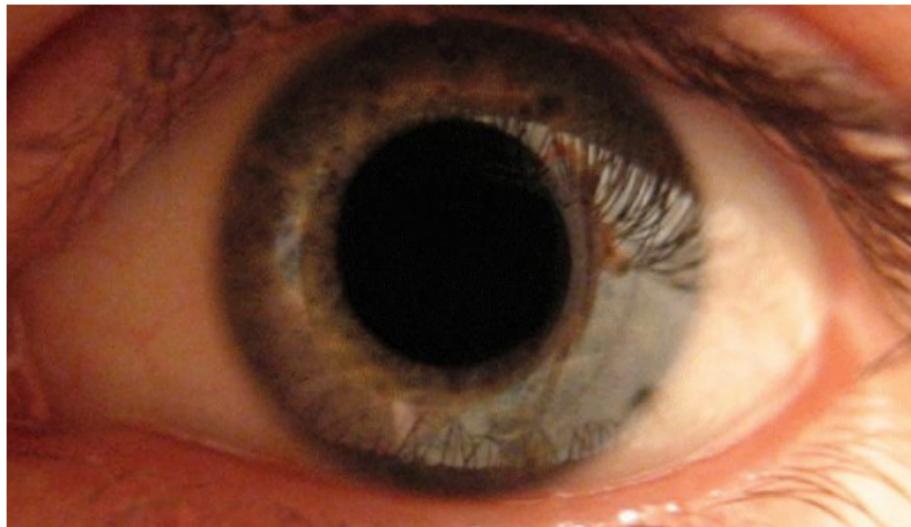
- MYTH

In fact, the low brightness of the screen
is not a safeguard!



It actually has a very small impact since apart from blue light there are a lot of other things that are harmful to your eyes.

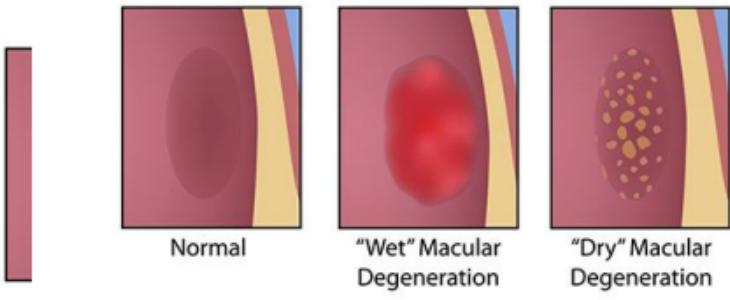
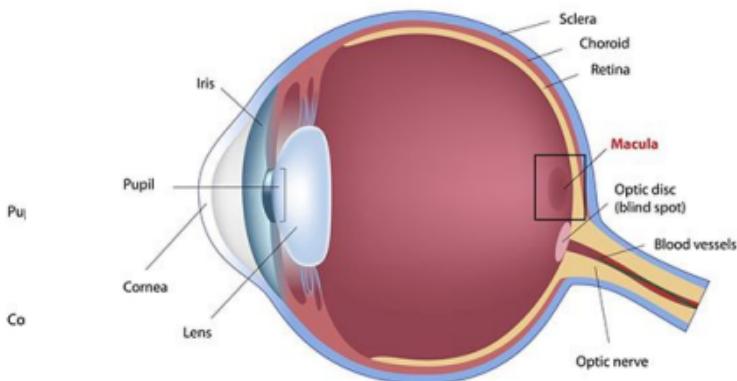
Such are flickering, small fonts and so on.



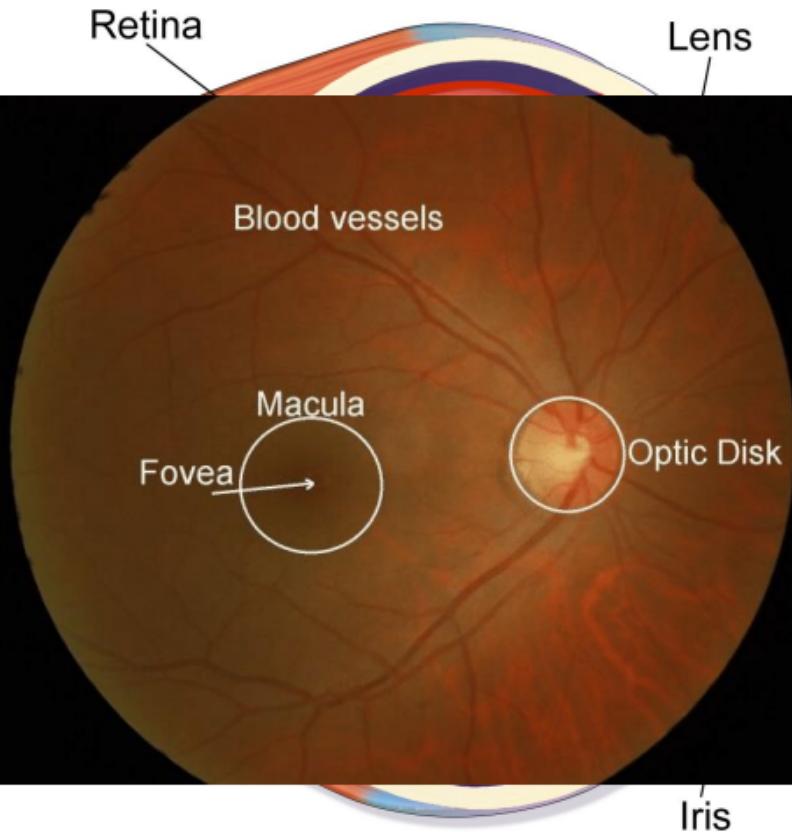
Blue light can cause macular degeneration - TRUTH

Macular degeneration is the condition which causes deterioration of the macula

Macular Degeneration

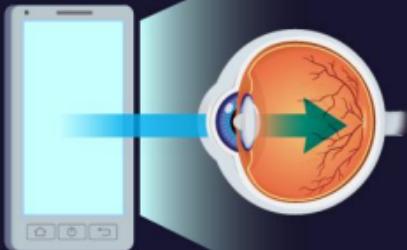


Macula - the small central area of the retina, controlling the visual acuity.

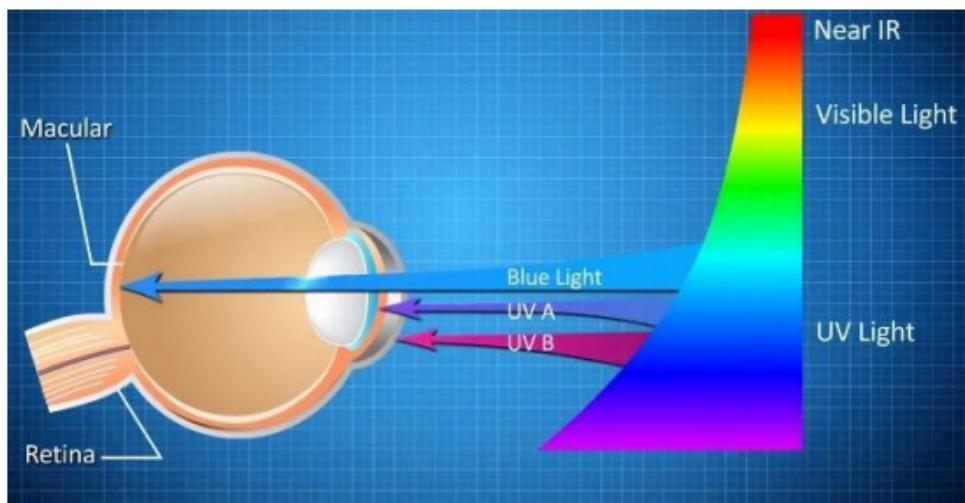


Eye Anatomy

The ability to complete any visual task requiring us to see detail depends on the health of the macula - reading, recognizing faces, driving, watching TV, using the computer, etc.

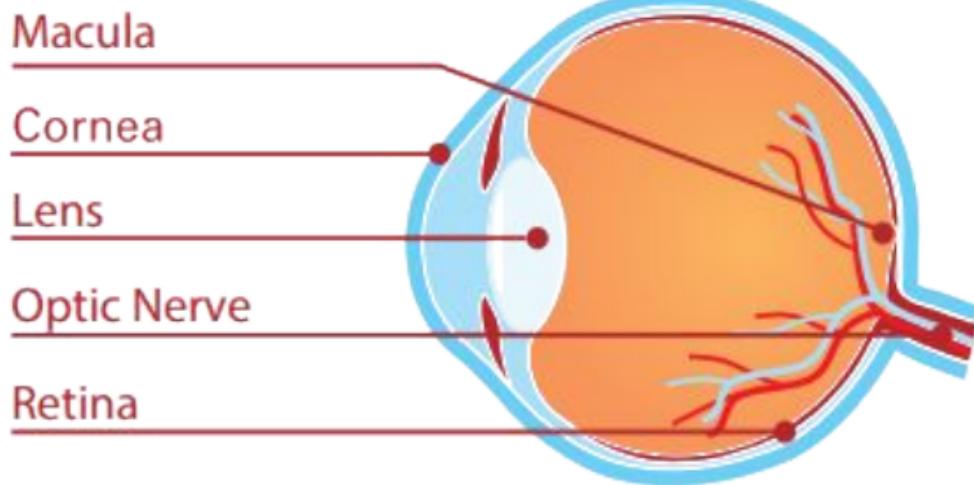


Unfortunately, macular degeneration can lead to permanent sight loss.

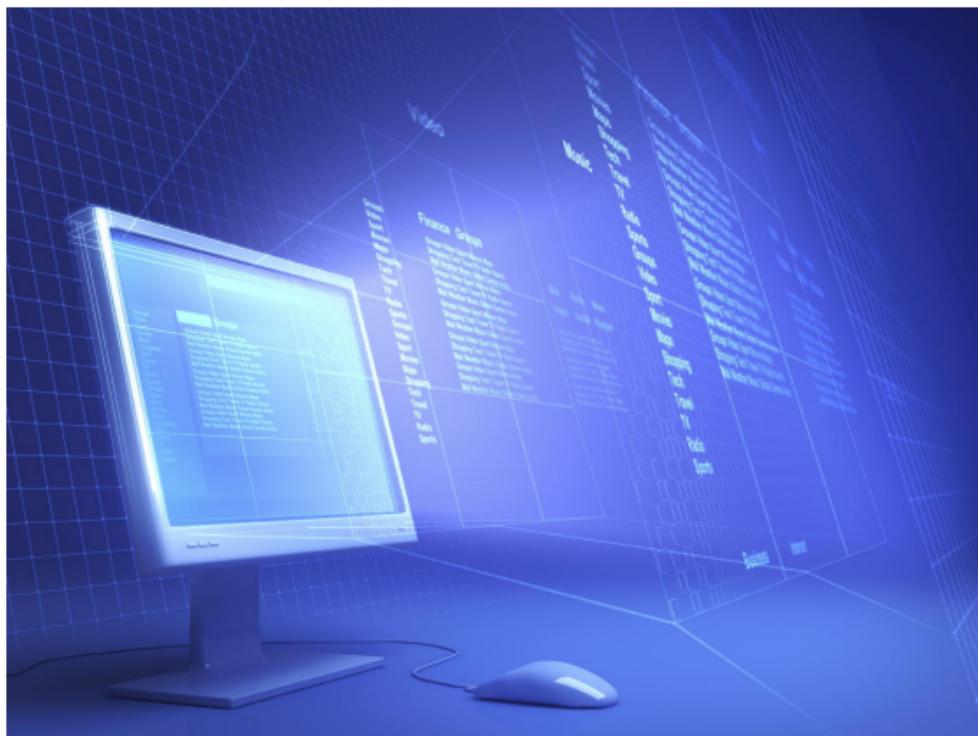


Blue light is related to macular degeneration because our eyes can not block the blue light and it penetrates all the way to the inner of the eye.

Consequently too much blue light can cause damage to the light-sensitive cells in the retina.



However, more research is needed in order to define how much is too much and the potential long-term effects of constant digital eye strain.



How to reduce the blue light exposure?

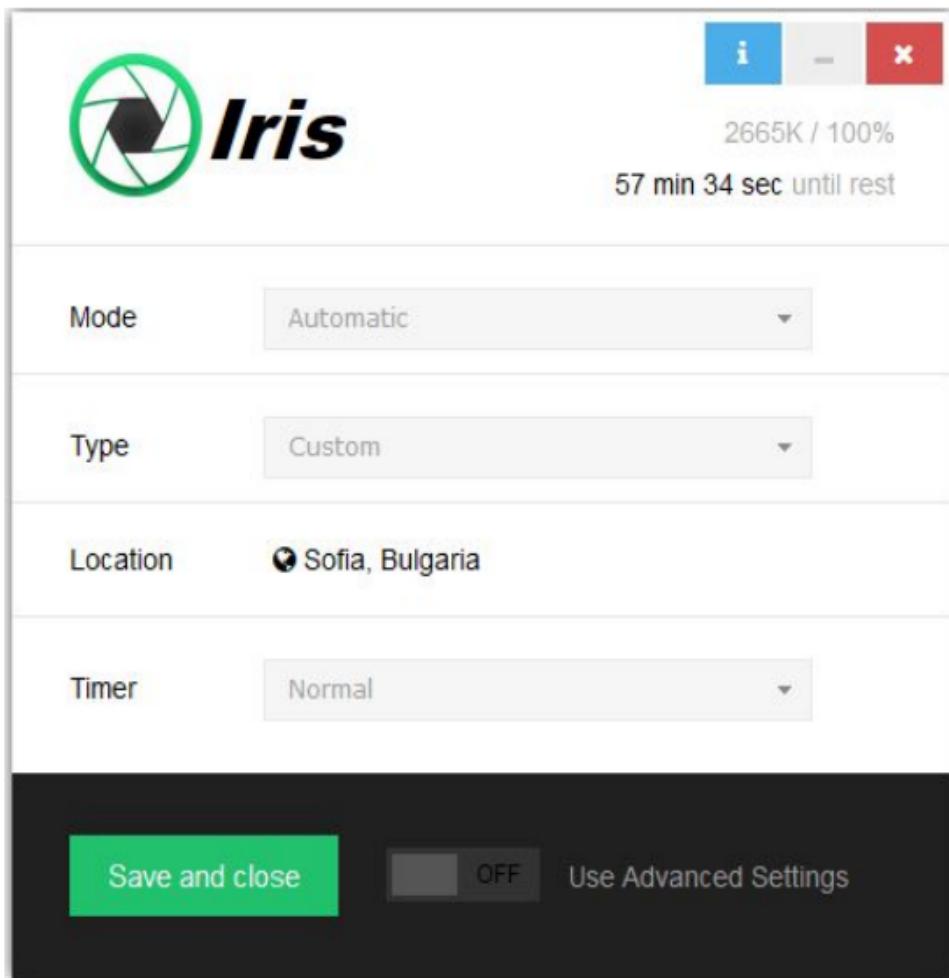
If you are a bit concerned about your health after going through the myths and truths about blue light, we are happy to inform you that you can successfully reduce your blue light exposure!



You can do that by using software like ours - Iris will reduce the blue light emitted from your computer or laptop screen.



It has a few different modes and detects automatically whether it is day or night.



The image shows a screenshot of the Iris camera settings interface. At the top right are three buttons: a blue 'i' button, a grey minus button, and a red 'x' button. Below them is the text '2665K / 100%'. Further down is the text '57 min 34 sec until rest'. On the left side, there are four settings with dropdown menus: 'Mode' set to 'Automatic', 'Type' set to 'Custom', 'Location' set to 'Sofia, Bulgaria', and 'Timer' set to 'Normal'. At the bottom left is a green 'Save and close' button. To its right is a grey 'OFF' button, and further right is a link 'Use Advanced Settings'.

Iris

2665K / 100%

57 min 34 sec until rest

Mode: Automatic

Type: Custom

Location: Sofia, Bulgaria

Timer: Normal

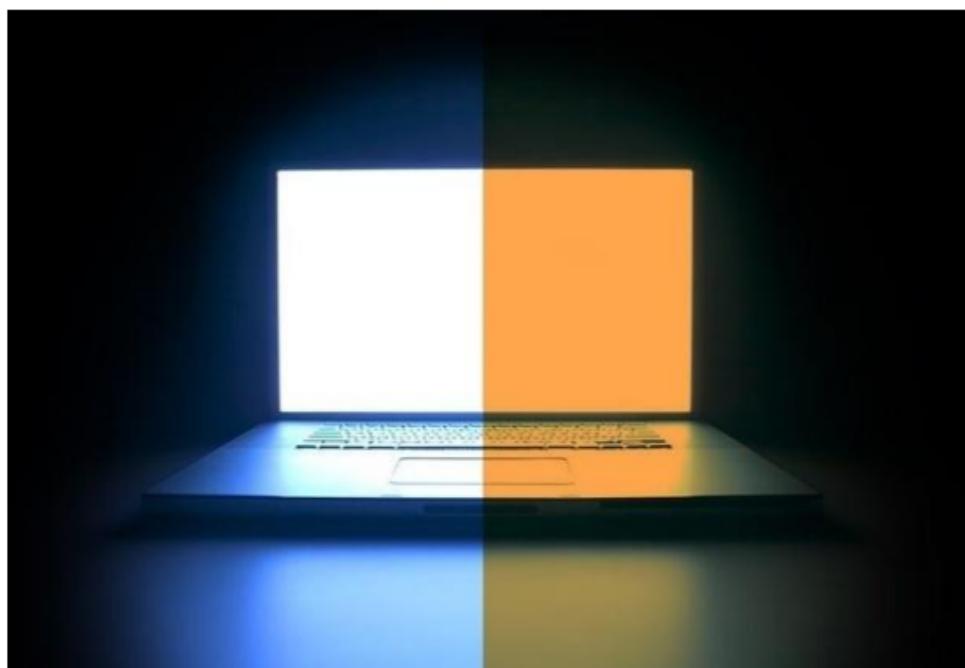
Save and close

OFF

Use Advanced Settings

Thereupon Iris will change the color temperature and the brightness of your screen.

This way you will be able to use your device for longer without having a tired eye afterward.



Take a break

The aim is to move around every hour for at least 5 minutes or simply follow the 20-20-20 rule:

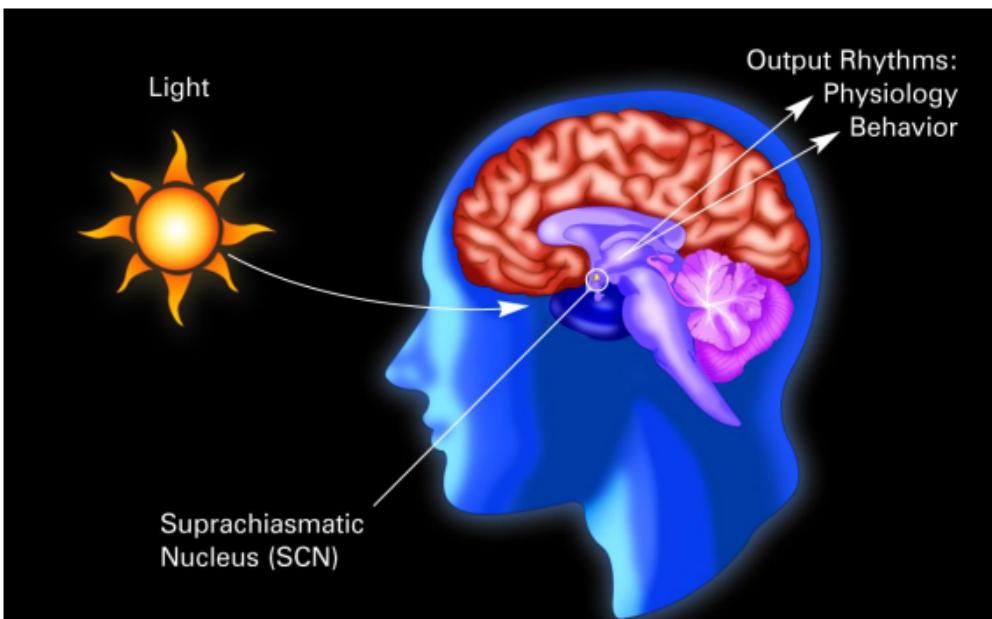
Every 20 minutes look at an object 20 feet away from you for 20 seconds.



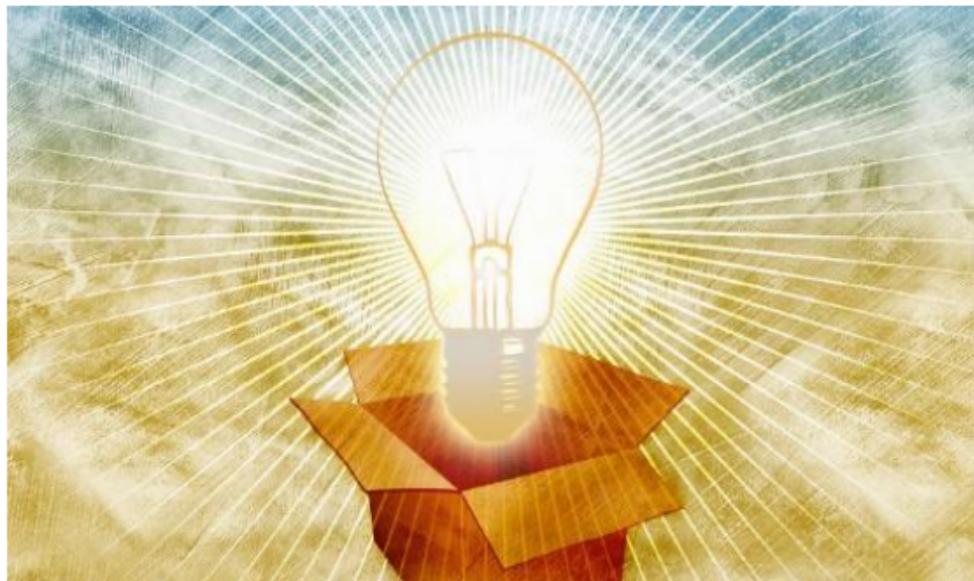
Conclusion

Blue light is naturally emitted by the sun and is needed by our bodies in order to regulate our biological clocks.

Too much of it though may cause worse sleep quality, eye strain and other health problems.

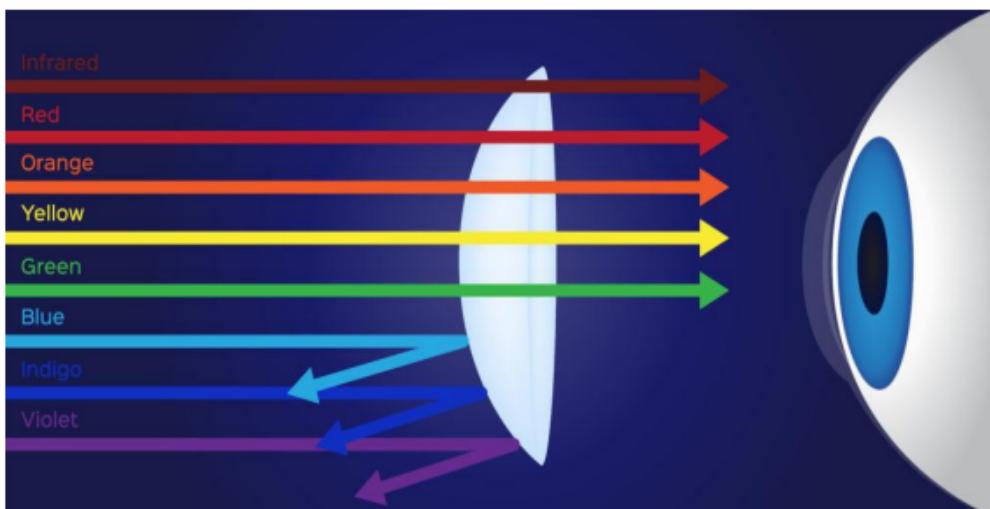


However, blue light therapy is used to treat people suffering from seasonal affective disorder (SAD) - it improves their sleep patterns and elevates mood.



Download Iris

In our everyday lives, we can deal with excessive blue light exposure by downloading software like Iris.



It reduces the blue light emitted from the screen or by minimizing the time spent in front of a device in the evenings.

TEST TRIAL

The image shows the Iris app interface on a mobile device. At the top, there is a green button labeled "TEST TRIAL". Below it is the Iris logo, which consists of a stylized camera lens icon followed by the word "Iris" in a bold, italicized font. To the right of the logo are three small icons: a blue "i" for info, a grey minus sign for settings, and a red "X" for exit. The main area of the screen displays five settings options, each with an icon and a label: "Blue light" (monitor icon), "Brightness" (monitor icon), "Location" (location pin icon), "Transition" (circle with a dot icon), and "Moon" (moon icon). At the bottom of the screen, there is a black footer bar containing three buttons: a green "Save and close" button on the left, a grey "ON" button with a switch icon in the middle, and a "Use Advanced Settings" button on the right.

Blue light

Brightness

Location

Transition

Moon

Save and close

ON

Use Advanced Settings