

**Eye  
diseases  
you need  
to look out  
for when  
using your  
PC**



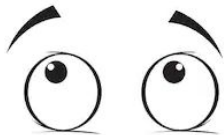
**Iris Technologies**

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# Introduction



We use our eyes all the time while we're awake.

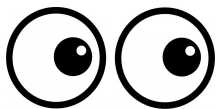
Some would say that's our most important sense.

However, like anything else there are eye diseases and disorders that can cause deteriorating health of the different parts in your eyes.

They can be caused by genetics, environmental issues, accidents, age and exposure to bright and harmful light.

In this book we're going to explore a few eye diseases caused by prolonged use of digital devices and LED lights.

As we know in the 21st century we all can't go a few hours without checking our messages, emails, binge watching our favourite show or look through spreadsheets all day.



However, our computers and phones emit harmful radiation in the form of blue light.

Check out our article about [Blue light effects](#).

Which is why we must learn how to protect our eyes and do our best to prevent the following common diseases.

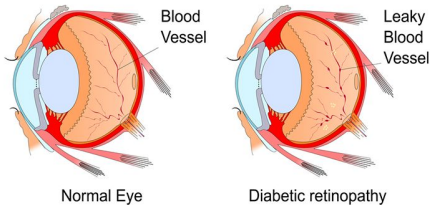


# Retinopathy

Retinopathy refers to a few diseases and conditions caused by deformation in the retina.

It can be caused by diabetes, high blood pressure and mutations.

## Diabetic Retinopathy



Damaged or misplaced nerves in the retina can cause blurry vision.

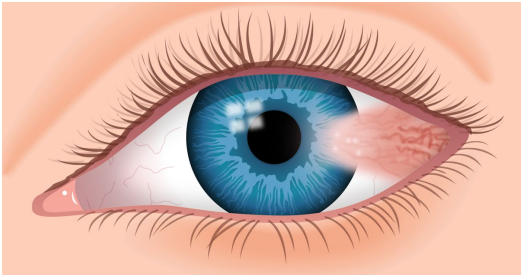
Blood vessels can also enlarge and cause eye pain and shadows on the vision.

Retinal disorders often are a result from other eye diseases like cataract and myopia.



# Pterygium

A pterygium (from the greek word meaning 'wing') is a membrane that grows on the eyes, skin, neck or knees due to exposure to ultraviolet light.



Very common in countries where there is a lot of sunlight and outdoor activities are popular.

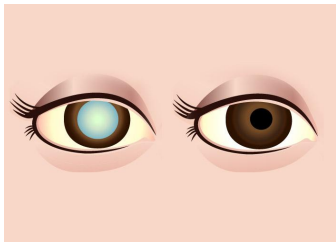
The pterygium can grow and as it does it pulls the cornea and distorts it.

It can also tear the lens film in the eye.

It can distort vision, cause physical pain and strain, blurriness, discomfort and reduced eyesight.

# Cataract

Cataracts are small cloud-like zones that appear in the eye lens.



They're usually caused by a thinning of the lens.

This thinning can be a product of prolonged exposure to radiation.

X-rays and UV rays can cause damaging changes in the lens cells.

Blue light is also a very high energetic light wave like UV light.

It's been proven that staring at blue light emitting screens for long periods of time can cause cataracts.

To prevent cataracts you can wear sunglasses, computer glasses or get a blue light filter like Iris for your digital device.

# Macular degeneration

Macular degeneration is one of the leading diseases that cause blindness. It happens when the small central region of the retina, called the macula, starts deteriorating.



This can lead to severe vision issues and distortions.

It's also a condition that gets worse with age and is often referred to as age-related macular degeneration (AMD).

While aging and genetics are indeed a factor in developing macular degeneration, there are additional causes like high blood pressure, high cholesterol, smoking and obesity.

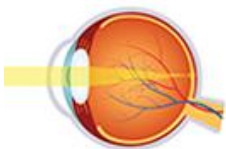
One very preventable additional cause is exposure to UV and blue light from the Sun and artificial light from LED lights - read more about the [Flicker](#).

Prevention here suggests wearing protective eyewear and limiting LED lights in your home.

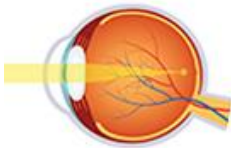
Unfortunately all modern screens are made from tiny LED lights, which is why there are ways to limit harmful exposure and reduce the flickering effects of the screens.

# Myopia

Myopia, also known as near-sightedness, is a very common eye disorder where light focuses before it reaches the retina. It can be caused by many factors like age, glaucoma, cataracts, retinal detachment and lens degeneration.



Normal vision



Myopia



In recent times myopia is usually developed during the adolescent years where young people spend a lot of time staring at objects near them (in particular digital devices) and not taking breaks to look at distant object and exercise their vision.

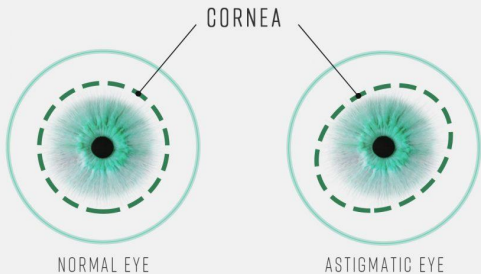
We here at Iris recommend the 20-20-20 rule - every 20 minutes for 20 seconds look at an object 20 feet away (approx. 7 meters).

This will help you prevent near-sightedness and get your eye health back on track.

# Astigmatism

Astigmatism is an error in refraction where the light can't focus properly on the retina.

That's caused when your eye isn't a perfect round shape.



Actually, most people have a certain type of astigmatism, because barely anyone has perfectly round eyes.

However if your eye starts looking like an american football, there's a big problem.

Astigmatism is usually an additional condition to far or near-sightedness.

It can cause blurry vision, double vision, eye pain, fatigue and headaches.

# Nyctalopia

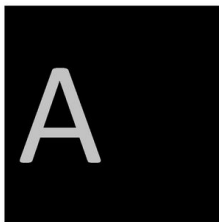
Nyctalopia, or night-blindness is a condition in which you can't see clearly in fairly low light.

It's often described as the inability to adapt to darkness.

Normal



Nyctalopia



It's usually a result from a different ocular disease like glaucoma, cataract or retinitis.

It can also cause loss of peripheral vision.

A roman by the name of Aulus in 30AD suggested that washing your eyes with liver juice and eating liver can cure night-blindness.

We suggest you stop listening to romans from centuries ago and instead **try Iris** to properly adjust your screen brightness and deal with these preventable diseases.



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**Protect your Eyes. Be Healthy. Achieve more**



**<https://iristech.co>**

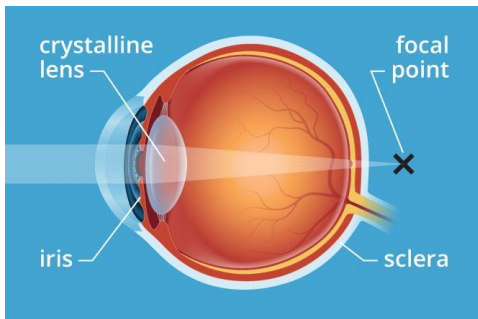
**TRY IRIS**

# Presbyopia

Presbyopia, from the greek *presbus* - meaning old, is also called the aging eye condition.

You know your aunt Grace who squints and holds the newspaper really far away from her face so she can read it.

Yes, that's presbyopia.



It's caused by progressing age of course. It includes the inability to read small text and focus on small print.

Which is why older people when using digital devices often put their glasses on and hold the phone really close to their face.

Also if you're wondering why the zoom on the wikipedia page your mom is reading is 240%, now you know why.

In Iris we have created a menu to help with magnification that can easily reduce the eye strain and headaches caused by presbyopia.



# Photophobia

As you can probably guess from the name photophobia is the fear of light. It's more often explained as discomfort in the eyes and body when exposed to really bright light.



Photophobia is usually present in people who've experienced other eye related issues and diseases or gone through a surgery of some kind.

Artificial light can also cause great pain and discomfort to people with photophobia which is why dimming of the brightness and the colors is recommended in these cases.

# Conclusion



These are only some of the common eye diseases that can be seen in frequent users of digital devices in our day and age.

We should always do our research and learn how to protect our eyesight and our health.