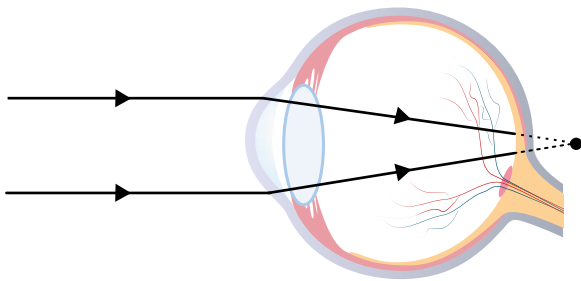


Refractive error

Refractive error is where the eyes are the wrong shape or size, and you can't see some things clearly without glasses, or you need to focus more than is normal to see clearly. There are three main types: long sight, short sight and astigmatism.

Long sight (hyperopia)

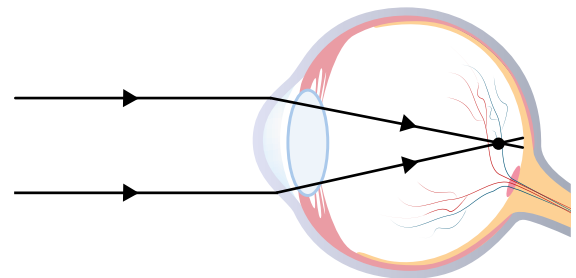


Long sight is when your eyeball is either too short, or the cornea at the front of your eye is not curved steeply enough. When you look at a distant object with your eyes relaxed, the light coming from the object is focused behind your retina at the back of your eye. This means that things look more blurry the closer they are to you.

If you are long-sighted you have to focus more to see things clearly than you would if you were perfect-sighted. It affects your vision of things that are far away as well as things that are close to you, but is more noticeable for things that are close to you. This focussing is called accommodation. When you are young, and have lots of accommodation, you can use this to overcome your long sight, so you may not need glasses. However, as you get older your accommodation naturally reduces and so you will need to wear glasses more to see clearly.

Whether you need to wear glasses will depend on how long-sighted you are, how old you are, and whether you are having problems with your sight. Most children are born long-sighted. This is quite normal and does not mean they need glasses as they have lots of accommodation to allow them to see clearly and comfortably. As the child gets older the eye grows and the amount of long sight reduces. If the eye grows too much, or the child is not born long-sighted enough, they develop short sight and have problems seeing things that are far away.

Short sight (myopia)

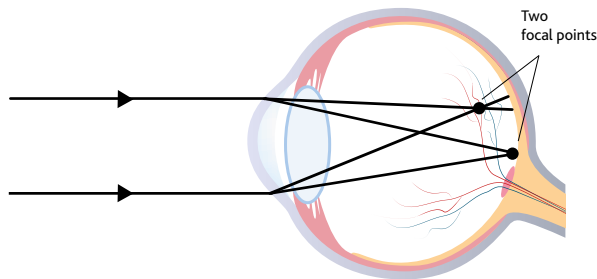


Short sight is when your eyeball is either too long, or the cornea at the front of your eye is too steeply curved. This means that when you look at a distant object the light coming from it is focused in front of your retina at the back of your eye and the object appears blurred (without your glasses). The closer the object gets to you, the clearer it becomes.

Short sight is very common. It usually starts during primary school years and tends to get worse until the eye is fully grown. It can also develop in very young children. Wearing your glasses will not make your eyes worse, so wear them when you feel they help.

Any child can become short-sighted, but children with short-sighted parents are at increased risk. We do not know exactly why, but scientific studies have shown that children who spend time outdoors are less likely to become short-sighted.

Astigmatism



Astigmatism is where the cornea (the window at the front of the eye) or the lens inside your eye is shaped a bit like a rugby ball rather than a football. This means that without glasses everything looks blurred whether it is far away or close up. It may be combined with long sight or short sight. If it is combined with short sight, things look more blurry the further away they are from you. If it is combined with long sight, things will look more blurry the closer they are to you.

Astigmatism is very common and is easily corrected with toric lenses in your glasses, which take account of the rugby ball shape. If you want to wear contact lenses, you may need to have special toric ones.



Short-sight is very common and often gets worse while your eyes are growing. Wearing your spectacles will not make your eyes worse, so wear them when you feel they help.

Wearing your glasses will not make your eyes worse (or better), so wear them when you feel they help. If your astigmatism changes, you may notice that your vision in new glasses appears distorted or you feel disorientated when you wear them. This is very common and is caused by your brain getting used to seeing things clearly with your new prescription. The more you wear your new glasses the more quickly you will get used to this, but it can take a few weeks for you to see comfortably with your new glasses. If your vision is clear with your new glasses, even if it feels odd or distorted, the prescription will be right for you, and your brain just needs to get used to the new prescription. However, if your vision is blurry you should go back to your optometrist.

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