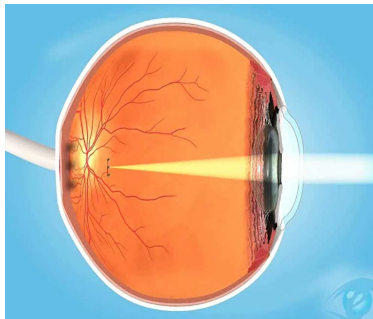


CHOOSING SPECTACLES IF YOU ARE SHORTSIGHTED

Q What is short-sightedness?

A Short-sightedness affects almost a third of the population. It occurs when either the eye ball is too long from front to back or when the cornea (the clear part of the front of the eye) is too steeply curved. The result is that there is a mismatch between the length of the eye and the focusing power of the cornea and lens. As a result the light comes to a focus before reaching the retina.



The main symptom of short-sightedness is difficulty seeing objects in the distance - near objects can usually be seen clearly. Other symptoms can include headache and eyestrain.

Q What spectacles should I choose?

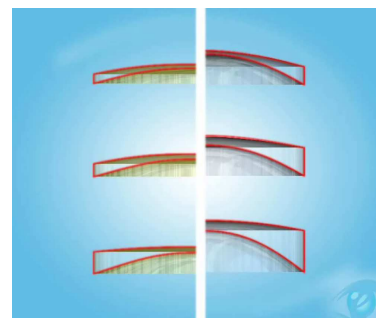
A Short-sightedness can usually be corrected with spectacles. The lenses used to correct short-sightedness are thicker at the edges than at the centre which bends the light entering the eye so that the focus is pushed back onto the retina.

If you are only slightly short-sighted, there is no restriction on the size and shape of the spectacles and standard lenses will be adequate. If you are more short-sighted, there are a number of things that you can do to improve the appearance of your spectacles and your vision through them.

Choose a reasonably small frame. The lenses to correct short-sightedness are always thicker at the outside than the centre. Therefore, the larger the lenses are, the thicker and heavier they will be. Also be careful when choosing the shape of spectacles – some may be small in one direction but wide in another resulting in a thick edge.

Choose high-index lenses. If your prescription is above a certain value, your optician may recommend high index lenses. These lenses are made from materials that bend the light more than standard glass or plastic lenses. This means that the lenses do not have to be so curved in order to give the same power which in turn means that the lenses will be thinner and usually lighter. High index glass and plastic lenses are available and your optician will be able to advise on the best type for your eyes.

Use aspheric lenses. In some cases your optician may recommend aspheric lenses. These lenses are specially designed to reduce the thickness of the edges by gradually becoming less curved towards the edge of the lens.



Add an anti-reflection coating.

An anti-reflection coating is a very thin layer which is applied to the front and back surface of the lenses. The coating reduces the brightness of the reflections from the lens which makes them clearer to look through and less conspicuous to look at. A coating greatly improves the appearance of higher prescription lenses and is particularly important if you have high index lenses. The coating also tends to provide some resistance to scratching.

Q What are the alternatives to spectacles?

A In most cases, short-sightedness can be corrected with contact lenses. These are almost completely invisible and are more convenient for sports and other activities. Short-sighted people can often see rather better with contact lenses than spectacles because the image is bigger at the back of the eye. Your optometrist will be able to advise on your suitability for contact lenses.

It may also be possible to have your short-sightedness reduced or cured by refractive surgery. There are two main ways of achieving this: firstly by changing the shape of the cornea (the clear window at the front of the eye), or secondly by replacing the lens inside the eye with a plastic lens of a different power (clear lens extraction). Clear lens extraction is the preferred option for very high degrees of short-sightedness or where the cornea is unsuitable for surgery. However, this procedure is rather more invasive and the techniques involving reshaping the cornea using a laser are generally preferred. Your optometrist will be able to advise you on your suitability for refractive surgery.

