

Sight Matters

FAQ Sheets

Loss of Near Focusing - Presbyopia

Presbyopia is a condition where there is a gradual loss of the natural focussing ability of the eye. This is usually first noticed between 40 and 45 when people start experiencing blurred vision while reading, or needing to hold things further away.

The Cause

These changes are entirely normal and are caused by an age-related hardening of the natural lens inside the eye. Contrary to what some people believe, this is not a muscle weakness and it cannot be fixed with eye exercises.

Unlike other vision conditions, presbyopia is not related to the shape of the eye. It is simply a loss of flexibility of the lens inside the eye, causing it to be harder and less able to change when the muscles pull as the person tries to focus up close.

This natural phenomenon occurs gradually from birth to around 60 years of age, but it's just that the changes are not usually noticed until they start to affect the distance at which the person reads or does some other near task - like sewing or a delicate hobby.

The human lens will also continue to change as the person grows older, so the prescription will need to become stronger over time. Again contrary to some popular beliefs, these changes do not occur because the person has been wearing spectacles (or not wearing them either) - they are related to the fact that the person is continuing to age.

Incidence

Everybody over 40 will be affected by presbyopia. Even people who are short-sighted will lose their focussing ability and start to need to remove their spectacles when they want to read.

Symptoms and Signs

The most comment from people with presbyopia is that there "arms aren't long enough". They need to hold things like newspapers and menus further away when trying to focus and they also notice near blur, eyestrain and headaches after prolonged concentration.

Treatment with Spectacles

Presbyopia is typically treated with spectacles or contact lenses that replace the focussing ability that has been lost. In spectacles there are 4 main options:

1 Reading Glasses:

Reading glasses are the simplest way to correct presbyopia. They are simply worn when a person is doing near work and removed at other times. There is a single focus at the near working distance, so things are blurred if the person leaves them on and looks up into the long distance.



Reading glasses are only for near tasks

The constant need to take the glasses on and off can be inconvenient, but they are useful for simple tasks like reading in bed.



Clearer up close but blurred in the long distance

2 Look-Over Reading Glasses:

An improvement to simple reading glasses is to have them made in a look-over or half-eye frame. The lens is exactly the same, but the frame allows the wearer to look up over the top of the frame when looking into the long distance.

3 Bifocals:

Bifocal means "two focuses" and they offer the advantage of clear distance vision through the top of the lens and the reading prescription in the lower portion. This is positioned for when the



Two focuses

person looks down to read and the two lens areas are separated by a visible line. Bifocals are now generally an older style of lens.

4 Progressives:

Progressive lenses are also known as multifocals, graduated lenses or PAL's (progressive addition lenses). They are similar to bifocals, but there is no line and the change of focus is more gradual so that there is also an area that is clear for intermediate tasks at arms length.

This lens option provides the closest thing to natural vision at all distances for those people affected by presbyopia. They are worn by hundreds of millions of people around the world and are now the most normally recommended alternative.



A focus for all distances



No blur in the long distance

Treatment with Contact Lenses

Contact lenses are also used to replace the lost focussing ability caused by presbyopia. Here there are 3 options:

1 Monovision:

An option for presbyopia in contact lenses is a technique called monovision. This involves one eye being mainly focussed for long distance and the other eye being mainly focussed for near tasks. The brain learns to concentrate on one image or the other, depending on the task.

Not everybody is able to adapt to this change to the optical system, so a trial is always undertaken before deciding to proceed. Approximately 70% can adapt but the remainder are troubled by the image confusion and the reduction in depth perception created when only one eye is being used at a time.

2 Multifocals:

Multifocal contact lenses to provide a focus for long distance and a focus for reading all in the one lens design. While there is often some compromise in the vision when compared to progressive spectacles, most of these patients find them quite adequate, especially for social occasions.

3 Combined Reading Glasses & Contact Lenses:

For those who are wearing contact lenses for long distance vision, they can also put on a simple pair of reading glasses or look-overs over the top of their contact lenses when they want to read.