

Myopia

Myopia, or short-sightedness, is where the eye can see up close but not in the distance.

It is measured in units called dioptres. On your glasses prescription the minus (-) sign denotes short-sightedness and the larger the number the more short-sighted you are.

People who are short-sighted often have eyes that are oval in shape which is called astigmatism. Laser vision correction procedures are well suited to correcting up to -8.00 dioptres, including any astigmatism present.

Three types of laser vision correction can be considered with the characteristics of your eye and your lifestyle needs combining to determine which procedure suits you best.

SMILE® is a newer procedure where a small lens shaped section of cornea, termed a lenticule, is removed in one piece. This is performed by a Femtosecond laser as seen in this animation. SMILE® is minimally invasive, dry eye friendly and biomechanically strong, so you can return to normal activities quickly. It is well suited to people with active lifestyles. SMILE® is not so well suited to people with small corrections or higher astigmatism and where the cornea has any pre-existing weakness.

LASIK has a strong track record and has been performed for over 25 years. Two lasers are used, the first, a Femtosecond laser that creates a very thin flap and the second an Excimer laser, to reshape the cornea as this video demonstrates. By preserving the smooth surface cells of the eye, LASIK has very rapid visual recovery. LASIK can treat a wider range of short-sightedness and astigmatism compared to SMILE®. It can also perform customised treatments when required. It is important to care for the flap in the first week after LASIK so some restriction in activities is required.

The third treatment option is PRK. This treatment has been available for 30 years and performs a treatment similar to LASIK but without the laser flap. Since the surface cells of the eye are removed in a broad area it takes longer to recover when compared to LASIK and SMILE®. Nowadays, PRK is used when the cornea is thin or when customised correction is required. PRK gives excellent results but has a longer initial recovery time.

All three procedures have similar predictability and safety profiles. The choice of procedure comes down to the detailed characteristics of you and your eye.

Many people who are short-sighted are able to read without glasses. Once you reach 40 years of age you start to lose the ability adjust your focus between near and far. Termed presbyopia, this is an inevitable fact of life but has important implications for laser vision correction in short-sighted people as you will likely give up some reading ability to gain better distance vision.

A strategy used with laser vision correction to minimise the effects of presbyopia is to create blended vision where one eye is left slightly short-sighted to give near vision and the other is corrected for the distance. This can be very satisfactory for many people but it is not suitable for everybody. There are pre-treatment tests that can help you decide whether this approach would be suitable for you.

For a comparison of these procedures please see the chart provided to help you see which might suit you best or alternatively have a look at the pages dedicated to these technologies on our website.

For further assistance, or to take the next step in your visual journey, please don't hesitate to book a Pre-assessment Tele-Consultation or In-House Appointment during which we can further assess your individual eye health and refine your options.

We're here to help you see the possibilities.