

LASER EYE SURGERY

ASLA/PRK

Advanced surface laser ablation (ASLA), also known as photorefractive keratectomy (PRK), was first performed in Australia in 1991. Although the majority of vision correction procedures performed are now either LASIK or SMILE, ASLA/PRK still plays an important role. LASIK, SMILE and ASLA/PRK procedures have different uses and suitability for different patients.

The ASLA/PRK procedure only involves one laser – a cool-temperature, ultraviolet excimer laser.

Who is it used for?

ASLA/PRK can be used to treat short-sightedness (myopia), long-sightedness (hyperopia) and astigmatism (an imperfection in the eye's curvature that results in distorted vision).

ASLA/PRK may be recommended if you have a thin or unusually shaped cornea or certain dry eye conditions. This represents around 10% of people who are interested in having laser eye surgery.

What does the procedure involve?

After being given anaesthetic eye drops and a sedative, you will be escorted into the laser suite and asked to lie down on the surgical bed.

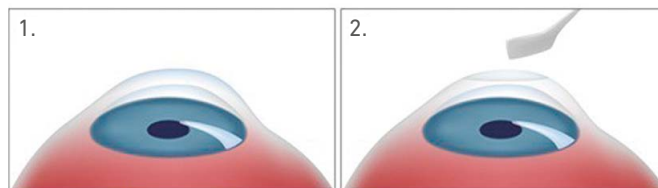
A plastic clamp is placed on your eye, so you can 'blink' without actually closing the eye. This isn't painful or uncomfortable.

Your surgeon will place a few drops of dilute alcohol solution on the surface of the cornea to soften the epithelial cells (1), before gently removing them (2). This will expose the smooth regular surface of the cornea underneath. Because your eyes have been numbed beforehand, you won't feel any pain.

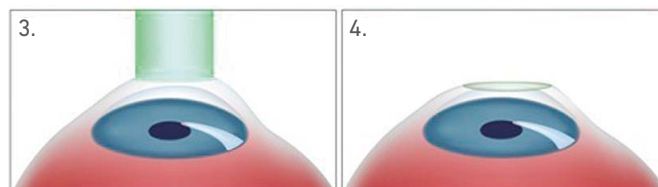
The excimer laser is then used to re-shape the cornea and correct your vision (3). You will need to look at a fixation light, which is simply a spot that allows you to keep focus.

Finally, a therapeutic 'bandage' contact lens will be placed on your eyes. You will need to keep this in place for around four to five days, to give your epithelial cells time to regenerate and grow back (4).

Softening and removal of epithelial cells



Re-shaping with an excimer laser to create a flatter cornea



How long does recovery take?

Patients should note there is some level of discomfort after the surgery and a slower visual recovery (usually a few weeks) compared to LASIK or SMILE. This is because the outermost layer of the cornea is disturbed and takes longer to smooth.

It is recommended that you rest for a few days after surgery. You will be given eye drops to use at home and your eyes will be checked the following day at your post-operative appointment.

Your vision will fluctuate for at least 6 weeks. However, once the corneal cells regenerate, you can expect the same visual benefits as would be achieved with LASIK or SMILE.