Surgeons put a contact lens INSIDE my eyeball

MYOPIA, or short-sightedness, affects a quarter of adults in Britain. While laser treatment can correct vision, it's not suitable for everyone. Jessie Hosti, 35, a strategist for an investment bank who lives in Bromley, Kent, underwent a new procedure. Here, she tells ANGELA EPSTEIN about her experience, and her surgeon explains the technique.

Picture: STEVE POOLE

Jessie Hosti: Delighted with her lenses and her perfect vision

ME AND MY OPERATION

IMPLANTABLE CONTACT LENSES

THE PATIENT

MY EYESIGHT started to go downhill from the age of 11. By my early 20s the world, without glasses, was a blur. If I took my glasses off to get changed, I couldn't see them to put them on again.

I've never liked wearing glasses — partly out of vanity, but also because my nose has a flat bridge so glasses would constantly slip off. Contact lenses were a problem, too. I spend hours in front of a computer and the dust generated by the machine would dry them out, making my eyes feel scratchy and tired.

I wanted to do something to correct my vision permanently, but the consultant told me my very strong prescription (-7.5 in one eye and -7.75 in the other) made me too high-risk to have laser treatment.

He then explained there was a new technique which involved implanting corrective contact lenses. The one-off procedure (the lenses don't need replacing) involves cutting into the eye and placing a false lens on top of my natural one.

The thought of cutting into my eye sounded absolutely terrifying, so I told the consultant I would have to think about it. Some of my friends and family thought I was crazy even to consider it, but my husband was encouraging — even though it was a very expensive procedure — since he knew how much I hated being so short-sighted.

And as I played with my children, Isla, three, and Noe, 18 months, it occurred to me how much easier it could be to do things such as swim with them if my vision was better.

What's more, I learned that the surgeon himself, Dr Goran Helgason, had undergone the procedure. What better validation could there be?

As a safeguard against the remote chance of infection or complications, only one eye would be done at a time. The lenses were ordered and I was booked to have the first operation, on my right eye, in January this year.

I was given valium to calm me down, then Mr Helgason applied drops to dilate my pupil and anaesthetise the eye. They tingled a little and made my blurred right eye even blurrier.

HALF an hour later, lying on a special bed, a plastic cover with one eye hole in it was placed over my face and chest. I couldn't see anything other than a few indistinct shapes and dull light. When Mr Helgason started the procedure and cut into my eye, I just lay there and tried to keep my eye as still as possible.

Within ten minutes the whole thing was done. Afterwards, as I'd been warned, everything was very blurred, mainly because my pupil had been dilated.

I went home and had a sleep — then, when I woke up, I covered my left eye and looked around the room. It was incredible how much I could see — from the details on the walls to the title of the book on my husband's side of the bed.

The following day, at work, I could not believe how clear everything looked.

Two weeks later, I had the procedure on the other eye.

The implantable contact lenses (ICLs) have made a huge difference to my life. I no longer have to hunt for my glasses when I want to do anything, and I can play tennis and swim with the children without worrying that I can't see.

ICLs may sound like a drastic solution, but this has opened the world up for me.

THE SURGEON

Dr GORAN HELGASON, a cataract and refractive surgeon at Advance VisionCare in Harley Street, London, says:

JESSIE came to see me after learning, to her disappointment, that she couldn't have laser treatment to correct her vision. Unfortunately, though laser is an excellent way to resolve myopia, it also involves removing tissue from the cornea — the transparent cover of the front of the eye.

The stronger a person's prescription, the more tissue has to be cut away. In Jessie's case, too much tissue would have to be removed, which was too risky for her overall sight.

Fortunately, ICLs don't pose this kind of problem since nothing is taken away from the eye. Also, the procedure is reversible if the patient changes their mind: we simply remove the lens.

AT JESSIE'S initial consultation, I carried out a range of tests to be certain she should go ahead with the treatment. A patient needs to have had the same prescription for at least two years, so the eyes are not being treated while they are in a state of change.

I also needed to be sure that there was enough space in the anterior chamber — the space between the cornea and the natural lens — to insert the ICL.

A machine known as an orbscan provided a 3D map of the eye and confirmed that Jessie's eyes were suitable. There is no problem with one lens sitting on another since her natural lens can't focus on distance. The implanted lens works like a pair of glasses, correcting the vision, and they don't need replacing.

The lenses we use for ICLs are made of a soft, flexible plastic that contains a small amount of collagen. As collagen is a natural substance made from pigs' eyeballs, it prevents the body from rejecting the lens.

The lens itself has a round central point with two plates on each side, so it looks like a curvy oblong and is 6mm in height and 12.5 mm in length.

To begin the operation, drops are used to dilate the pupil — the opening in the centre of the eye — from 5mm to around 8mm, as the ICL has to be inserted through this space into the back of the eye. I also placed anaesthetic drops in the eye. I began the procedure by using a specialist devise to hold back the eyelids to prevent blinking. Then, using a tiny knife, I made a 3mm incision on the edge of the cornea. Such a small cut doesn't require stitching afterwards.

I then injected more anaesthetic into the anterior chamber before injecting 2mls of a transparent solution known as viscoelastic. This helps expand the space where the lens is going to sit, making the lens easier to fit.

Using tiny surgical instruments, the lens is then placed into a cartridge inside a syringe with forceps in the tip.

I inject the folded lens into the anterior chamber, where it unfolds naturally and sits behind the pupil and on top of the natural lens. I then used my instruments to manipulate it into place in the way a finger would when putting a regular contact lens in the eye.

The implantable lens stays in place because it is slightly longer than the space it occupies.

I then flushed out the viscoelastic using a saline solution and applied drops to constrict the pupil back to its natural size. This takes a little time, which is why vision is initially blurry after the operation.

I'm delighted that Jessie is so pleased with her new perfect vision. Having had this procedure myself, I know exactly how she feels.

■ *THIS operation is available only privately. It costs around £2,390 per eye.*

Juice Doctor

HEALTHY HEART: Juice 400g (14oz) tomatoes, 200g (7oz) hulled strawberries and a few basil leaves. Serve over ice cubes. Tomatoes and strawberries boost your cardiovascular system. They're also full of lycopene, which has anti-cancer properties.

DIY DOCTOR WARTS

THESE are contagious cauliflower-shaped growths on the skin, caused by a virus

STEP ONE
WRAP duct tape around the wart. This irritates it, causing an immune system reaction that attacks the growths.

STEP TWO
REMOVE after six days and soak the affected area in water for a few minutes.

STEP THREE
USE an emery board or pumice stone to gently scrape the spot.

STEP FOUR
REAPPLY the tape the following morning, and continue the regime until the wart disappears.