

# Implant that promises older eyes a return to the vision of youth

First patients given 'zoom lens' in pioneering eye operations

By Sarah Knapton, Science Editor

FOR many people, getting older brings a catalogue of vision problems that make everyday tasks such as reading and driving a serious challenge.

Now a lens implant which mimics the working of a youthful eye is giving sight back to people struggling with cataracts, astigmatism, or long and short-sightedness.

It is the first lens that corrects for all types of vision problems and can be inserted in a simple operation. It works at any distance and in any light conditions, acting more like a camera zoom than other multi-focal lenses which have three distinct points of focus.

Susan Wright, 57, a charity consultant from Macclesfield, Cheshire, is one of the first people in the world to test the new implant.

She had surgery on both eyes six weeks ago and had her final follow-up appointment with Brian Little, an ophthalmic surgeon, at the London Clarendon Clinic last week.

Ms Wright suffered from cataracts and struggled to see objects up close which made driving almost impossible and working at a computer difficult.

"I have never had particularly good eyesight," she said.

"I had cataracts and long-sightedness and I would get a sense that there was a blank space in part of my vision.

"I stopped driving a while ago because

I didn't really feel comfortable with it, particularly finding my way anywhere if it was dark. I work with spreadsheets and it was getting difficult to tell the difference between the numbers on a screen.

"Now my mid and long-range vision is absolutely excellent and I have been told my short range vision will continue to improve. Colours are much brighter and everything is sharper.

"I had planned to do a driving trip across the Pennines to see friends and I have achieved that now. And I can thread

eye. The new implants have tiny circular grooves which change the way light is bent, a little like a series of concentric contact lenses of different strengths, allowing for a relatively seamless change when shifting focus. The new lenses also allow more light to get through so that colours are easier to distinguish.

Jenny Brindley, 58, a speech and language therapist from Camberwell, south London, has also had the implants.

"Before the operation my eyesight had deteriorated a lot. Gradually things were becoming more and more yellow," she said. "I was quite short-sighted and that had got worse and things were quite misty. I like art and visiting galleries and watching foreign films so my eyesight was stopping me doing a lot of things.

"I wore prescription glasses from the age of seven, but I work with children with autism and they grab at them a lot.

"After the first operation it was the first time I could see the end of the bedroom clearly. I noticed for the first time that my husband's jumper was purple. I had always thought it was brown. It's really much better than I expected."

Recent clinical trials of the implant showed that 81 per cent of participants reported 20/20 long-distance vision after surgery; 98 per cent said they never needed glasses for distance vision, 98 per cent for middle distance and 73 per cent for near distance.

The lenses cost around £3,900 per eye and are not yet funded by the NHS.

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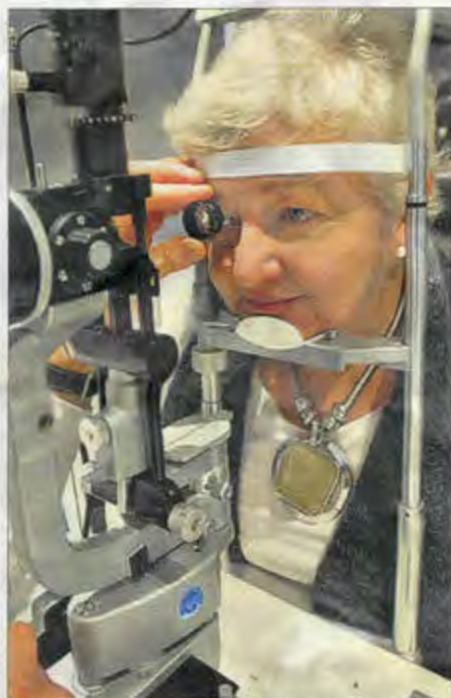
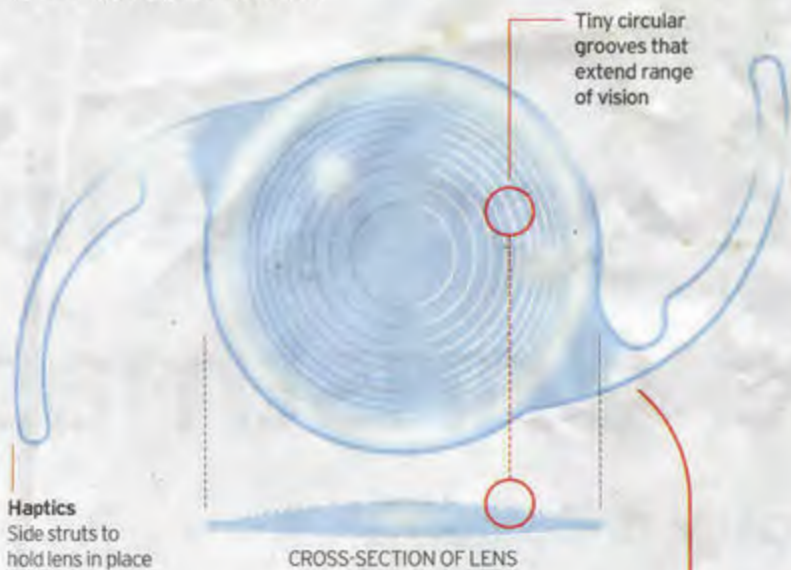
Percentage of patients in clinical trials of the implant who reported having 20/20 long-distance vision after their operation

needles for the first time when I am sewing and read books and newspapers without reading glasses."

The lenses are made of plastic and should never need to be replaced. Users have the added benefits that after cataracts have been removed, they will not develop again.

Previous multi-focal lenses which can correct near and far vision have produced halo bursts and glare and there is a notable jump when switching focus rather than the smooth focus of a natural

## AN ONBOARD 'ZOOM'



Susan Wright has her vision checked, right; she is one of the first people in the world to try out the new lens, seen top right

