

## Minimally invasive glaucoma surgery (Xen implant)

Written by Administrator

Friday, 18 September 2015 16:50 - Last Updated Monday, 21 September 2015 21:12

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 Minimally invasive glaucoma surgery - "MIGS" - introducing the Xen Gel Stent implant surgery in Yorkshire

Simpler techniques for glaucoma surgery hold increasing promise for patients at risk of progressive disease. These newer micro-invasive operations are collectively known as "MIGS" and the "Xen implant" is one of these. Benefits include making traditional surgery simpler, with a **single injection** instead of several cuts and stitches, which makes the surgery faster to perform, quicker to recover from and safer. The implant itself is very small, only 6mm long, with an inside opening only 45 microns wide: in other words, that's around 1/10th of 1/2 a mm! (that is about the width of a human hair). The Xen design has improved on itself over the last few years with various iterations, down to this small diameter, which can be implanted in only a few seconds. In fact the actual surgery takes a few minutes longer than that, as mitomycin anti-scarring treatment (around 1 millilitre of 0.2mg/mL) is typically given in addition, to minimise the amount of surface tissue scarring.

 Approximate size of Xen implant shown in yellow on a 3D model eye

The Xen implant is a soft material made from collagen (it is an animal-derived product), which is inert (non-reactive) and well-tolerated by the human body. To strengthen it, and make it more durable, the material is cross-linked synthetically (with glutaraldehyde) during its manufacture. Very occasionally (<1%), an implant may later need to be removed if a significant reaction develops. Post-operatively, after Xen implant surgery, some patients may need to revert back to some of their former drops again. Some studies show that at around 1 year after surgery, about 40-50% of patients do not need to use glaucoma medications at all. The Xen implant is recommended for standard primary open angle glaucoma, however studies are underway to look at its effectiveness in more advanced / refractory types of glaucoma (Clinicaltrials.gov, AqueSys Xen 45 Glaucoma implant in Refractory Glaucoma). One advantage of the Xen implant is that it preserves the surface conjunctival tissue, therefore keeping it in reserve should other surgeries be required at a later stage. The Xen gel stent has a CE mark, and is approved for use in the EU. Patients are advised to consult their glaucoma specialist with regard to their individual suitability for the Xen implant.

More information is available on the manufacturer's website: <http://aquesys.com/>

All surgeons on this site are trained in this procedure and please contact their secretary directly for more information, should you be interested in having this treatment yourself.

 Xen inserter - treatment for glaucoma (xen)

Xen surgeon 01

 Xen implant for glaucoma

Xen surgeon 02