

OrCam MyEye – innovative sight assistance (Part 2)

Following on from the previous issue, we will cover the remaining features, pricing and support of the OrCam MyEye.

Facial and person identification

The MyEye Pro can be taught to recognise up to 150 individuals (or 75 if you train each person with and without a facemask). The process to teach recognition is easy to follow and takes less than a minute per person and concludes with the user speaking the name of the newly trained person. In testing, I trained several members of my family, including children. The on-demand (or constant) facial recognition worked very well and known individuals were announced reliably by name. When the recognition feature is constantly enabled there is a timeout, so the device does not keep repeating the name of the same person coming in and out of view. This mode works well but does drain the battery if set to continually recognise and announce names.

If the MyEye Pro has not been taught to recognise an individual it will provide a basic description. The unit will announce the presence of a man, woman or child, when in the scene, even if they are not recognised by name. For those with significant sight impairment, this may be a useful feature.

Product, barcode and colour recognition

Much like with reading text, the unit can identify barcodes, either on button tap or constantly. Many barcodes are included with the device, so some will already be known. Other barcodes will be unfamiliar, but these can easily be taught, much like faces. I tested the unit with several kitchen items and toiletries. A few of the cleaning products were automatically recognised, and others could be easily taught. In most cases the text on the packaging was easier for the unit to read, rather than having to locate (and possibly train) a barcode. The device is also able to recognise colours. A user can point to an area of colour (for instance on an article of clothing) and trigger the device. As long as there is no distracting text, the unit will report the colour of the area. There is some variation in results depending on the background lighting, but the feature worked reasonably well in testing.

Battery life, charging, updates and warranty

Much like a smartphone, battery life is very dependent on usage. The manufacturers report a two-hour battery life if the unit is used constantly, which is consistent with my testing. Realistic usage is typically not constant, so battery life may well be longer.

This may be a limitation of the device in frequent day to day use.

The process of connecting the charger has been adapted well for the sight impaired. A magnetic coupling is present in the micro-USB charging port of the device. This allows the provided charging cable to connect without fuss when brought into proximity to the charging port.

The device does not maintain a connection to the internet to function, but it will connect to WiFi for device updates. I understand these updates tend to be two to three times per year and improve the feature's functionality. The update process can be triggered by presenting a QR code to the device when it is on charge.

The OrCam devices described come with a two-year warranty, and extended warranties can be purchased. Trade in programmes are also available to existing users, when a new model is released.

New user support

The creators recognise that sight impaired users would not be able to study a detailed user guide to get to grips with the product. For this reason, no obligation home visits are offered, along with video training sessions. Although I am not the target audience, I did find the provided video training call very helpful and can imagine it would be of great benefit to those with sight impairment.

Pricing

The unit reviewed in this article is the OrCam MyEye Pro, which retails in the UK for £3700+VAT. The lower specification OrCam MyEye sells for £2700+VAT. In the UK, blind users are exempt from VAT. Unlike in some countries (such as Germany) this type of device cannot be prescribed or issued by the NHS. There are some options available in the UK to support the purchase of this type of technology:

Access To Work (ATW)

This is a government scheme, available to those in employment. Following an assessment, this type of technology could be provided freely by the scheme to facilitate ongoing employment.

Disabled Student Allowance (DSA)

This is a similar scheme to the ATW but is only suitable for those in education. The scheme again requires an assessment to determine if such a device would be suitable.



Clinical trials and publications

The previous version of the MyEye has been included in a few trials and publications. The two of most interest were an interventional study of glaucoma patients (<https://clinicaltrials.gov/ct2/show/results/NCT02526680>) and a small pilot study (12 blind patients) published in *Jama Ophthalmology* (<https://jamanetwork.com/journals/jamaophthalmology/fullarticle/2520689>). Both studies highlight benefits of the use of such devices, though numbers were small. In the glaucoma group 74% (of 27 patients) were found to have an improvement in a quality-of-life visual function questionnaire (after one month of use).

Comparable products

The Orcam MyEye is a niche device, with few direct competitors. Several devices exist that offer text recognition for the sight impaired, but few are wearable. The 'Envision Glasses' are the most similar product (letsevision.com). Our intention is to make reviews of sight impairment technology a regular feature in this column, which will include a future review of the Envision Glasses and other products.

Conclusion

The OrCam MyEye is an impressive, though expensive, piece of sight impairment technology. In review, I found it easy to use and as accurate as I felt one could expect from such a device. All aspects appear to have been considered and refined by the manufacturers, including updates, charging, training and battery life.



SECTION EDITOR

David Haider,
Consultant Ophthalmologist
and Chief Clinical
Information Officer, Bolton
Foundation Trust, UK.
E: david.haider@nhs.net
Twitter: [@drdavidhaider](https://twitter.com/drdavidhaider)

The author has no proprietary or financial interests in the products discussed.