Extended range lenses and monovision

You have expressed an interest in selecting a lens that can give distance vision plus some intermediate and reading vision. The lens I use is the Rayner EMV lens. s://rayner.com/en/iol/rayone-emv/

This lens extends the depth of focus without using multifocal technology which can result in haloes. It is an ideal lens if you are keen to extend your range of clear vision but do not want the risk of glare and haloes and do not mind perhaps needing reading spectacles for prolonged close work.

I use the lens in three scenarios:

DD. Aiming for good distance vision in both eyes gives a degree of intermediate vision, ideal for the computer or dashboard, and works for casual reading like menus speedometers and price tags.

DI. In the second scenario I use a distance lens in one eye (Usually the dominant eye although this is not critical) and then give a slightly closer outcome (-0.50/-0.75) for the second eye. This enhances reading vision without sacrificing the distance.

DN. In the third scenario, when someone really wants to be able to read well, I would use a distance lens in the first eye and then aim for around arm’s length vision (-1.00/-1.50) in the other eye. This eye would have enhanced intermediate vision and good reading vision with some distance vision.

I have always been a fan of monovision (Using one eye for distance vision and one eye for near) as it keeps everything simple however, this new lens augments this desire for keeping it simple but extends and blends the two eyes for much better overlap and better stereoscopic vision (Depth perception).

As a retinal surgeon I have tended to use standard lenses with retinal disease as multifocal lenses are not recommended in this scenario however, with the EMV, I am happy to discuss using this lens dependent on your expectations and hopes- retinal disease will reduce your vision and is rarely back to normal following surgery.

It should be remembered that as in all surgery for cataract, the choice of the lens is based on calculations and assumptions based on the measurement of the eye and the position the new lens sits at I the bag. In the vast majority of cases, we get close to what we have aimed for (70% within 0.50D and 93% within 1D) however this is not an exact science and so I will aim a little more on the short-sighted side with each lens. It is possible to have refractive laser to refine any residual refractive error and this is available locally although I do not perform laser refractive surgery myself.

A toric version of the lens due for release soon for people with higher degrees of astigmatism but until then you will need to have low levels of astigmatism (Less than 1D)

Lash 6/22