

Macular Oedema

What is the macula?

The macula is part of the retina at the back of the eye. It is only about 5mm across but is responsible for all of our central vision, most of our colour vision and the fine detail we see. A healthy macula is about 250 microns (one quarter of a millimetre) thick.

What is macular oedema?

Macular oedema is swelling of the retina at the back of the eye in the macular area usually due to fluid build-up from leakage of damaged or abnormal blood vessels at the back of the eye. Macular oedema can occur in common retinal diseases such as wet macular degeneration, diabetic retinopathy, retinal vein occlusion, retinal arterial occlusion and also in rare conditions such as retinal dystrophies. It can also occur as a result of inflammation following eye surgery; trauma or inflammatory conditions of the retina.

What are the symptoms of macular oedema?

Macular oedema usually causes blurring of the central vision blurring or distortion of vision. Fine visual tasks such as reading are most noticeably affected by macular oedema. Sometimes there is very little or no blurring when the macular oedema is very mild or if it does not involve the most central part of the macula.

How is macular oedema diagnosed?

Macular oedema can be detected or suspected by an optometrist or ophthalmologist by from an internal examination of the eye using eye drops to dilate the pupil and a machine called a slit lamp to look at the back of the eye. It is then confirmed using an OCT scan which can show up the swollen area of the macula at the back of the eye and can

also provide a measurement of how abnormally thickened the macula is.. Macular oedema can cause the macula to swell up to over 500 microns in thickness.

How is macular oedema treated?

The treatment of macular oedema usually involves regular but quite painless injections of drugs into the inside of the eye ball. The drug that is used depends on which underlying condition is causing it.

Macular oedema due to diabetic retinopathy

This type of oedema is called Diabetic Macular Oedema or DMO. When the oedema measures more than 400 microns in thickness on the OCT scan, injections are usually commenced using either Lucentis® (medical name ranibizumab) or Eylea® (medical name aflibercept). Ozurdex® and Iluvien® are intravitreal steroid implants which have also been licensed for treatment of DMO in patients who have not responded to Lucentis or Eylea injections.

Macular oedema due to retinal vein occlusion (RVO)

Drugs that have been licensed for macular oedema due to RVO are Lucentis® (medical name ranibizumab), Eylea® (medical name aflibercept) and Ozurdex®.

Macular oedema due to inflammation

Ozurdex has been licensed for treatment of posterior uveitis or severe inflammation at the back of the eye. Sometimes it is used to treat macular oedema due to inflammation following cataract surgery.

Other causes of macular oedema

Macular oedema associated with inherited retinal diseases such as retinitis pigmentosa or optic disc pit can be treated with Dorzolamide eye drops such as or Acetazolamide tablets.