



Medication-induced Bullseye Maculopathy

The retina is the light-sensitive film at the back of the eye; the most important part of this tissue is the macula. The macula is responsible for our central vision and therefore our ability to resolve very fine detailed tasks.

A number of medications used to treat general body diseases such as systemic lupus erythematosus, rheumatoid arthritis, kidney or liver disease may adversely affect the macula. These medications include plaquenil, gilenya, methotrexate and roacutane.

Assessment procedures for medication-induced Bullseye Maculopathy

Bullseye maculopathy impedes the function of the central photoreceptor cells and thereby makes it increasingly difficult to perform fine detailed tasks such as reading. It is important to note that once vision is lost from bullseye maculopathy it rarely recovers, even after ceasing use of any drugs causing the condition.

The procedures that are conducted to detect signs of bullseye maculopathy at the earliest possible stage include:

- Fundus autofluorescence (FAF) imaging of the macula using the Optos Daytona. This is a particularly sensitive method of detecting disease in the retinal pigment epithelium which nourishes the retinal photoreceptors.
- Ocular coherence tomography (OCT) macular radial scan - this provides a three-dimensional image of all the layers of the retina in cross-section and enables the detection of any retinal thinning.
- Automated perimetry, or measurement of the central visual fields - this helps assess how well the macula is functioning and detects losses in the central field of vision.
- Visual acuity, best corrected - another test of macular functioning, which measures (using the standard letter chart) the level of detail that can be detected by the macula and any decreases from normal.
- Digital retinal photography - a colour image of the retina including the macula is recorded and viewed for typical signs and appearances of bullseye maculopathy.
- Amsler grid testing - you will be asked to view a grid pattern and report any distortion in the grid lines; again this helps detect changes in macular function.
- Colour vision testing.

These tests are performed not only to view the structure and function of the macula at a particular point of time, but just as importantly are also used as a baseline and/or compared to other results obtained at different times.

Fees for maculopathy assessment

The fee for maculopathy assessment following the initial consultation is made up of the following components:

- Fundus autofluorescent imaging **\$54.60** - there is no Medicare rebate for this item
- Ocular coherence tomography **\$80.90** - there is no Medicare rebate for this item
- Automated perimetry **\$80.90** - usually you will receive a Medicare rebate of \$56.40
- If you have been referred by another optometrist or a medical practitioner, the fee for the initial consultation will be bulk billed to Medicare, so will be at no additional cost to you (otherwise the fee will be **\$99.30**, of which you will receive a \$62.45 rebate from Medicare).

Following your consultation

A full report including the results of all the procedures will be forwarded to your relevant healthcare practitioners. We will inform both you and your healthcare practitioners if there are signs of bullseye maculopathy developing.