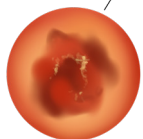
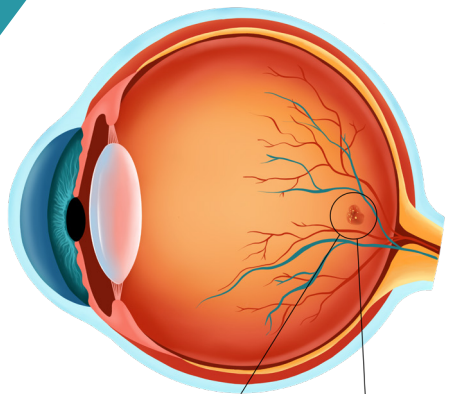


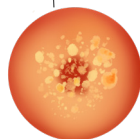


# MACULAR DEGENERATION

Age-related macular degeneration (AMD) occurs when the centre of the retina is damaged.



"WET" MACULAR DEGENERATION



"DRY" MACULAR DEGENERATION

## MACULAR DEGENERATION

Macular degeneration is a common cause of visual impairment in adult New Zealanders. It is also known as age-related macular degeneration (AMD), as the changes are often related to ageing. Over 30% of people aged over 75 will have early stages of AMD.

Its symptoms relate to degenerative processes that occur in the macula and can affect both eyes. If AMD proceeds to its late stages, severe central vision impairment can result.

### THE MACULA

The macula is the central part of the retina, the layer inside the eye on which light is focused by the cornea and lens. The retina responds to light and transmits signals to the brain, thus enabling us to see.

Different parts of the retina perform different tasks. The macula is responsible for central vision. It is also best positioned to pick up colour and perceive fine detail. In macular degeneration, degenerative processes occur in the macula, often as a result of age. This impedes central vision.

### SYMPTOMS

- Loss of ability to see objects clearly.
- Straight lines appear to be wavy or distorted.
- A grey or white spot appears in the centre of your vision.
- Loss of clear or correct colour vision.
- Print appears washed out when reading.
- A dark area blocks vision in the centre of your eye.

### TYPES OF MACULAR DEGENERATION

Macular degeneration is usually divided into two forms: wet and dry.

**Dry AMD** is common. Many people have dry AMD without visual symptoms. In the same way our skin gets blotchy and pigmented as we get older so does the macula. Dots called drusen can develop and with time may affect the central vision causing distortion. Dry AMD generally progresses very slowly. In some people the retina slowly thins and becomes atrophic causing gradual visual loss. There is no current treatment for dry AMD but most people maintain sufficient vision for their day to day tasks but lose some reading ability or the ability for fine detail vision.

**Wet AMD** is less common but may be more severe. This occurs when abnormal blood vessels grow at the macula and leak or bleed causing scar tissue to develop. There are now a number of treatments, called Anti-VEGF drugs, which can reduce vision loss and in some cases improve vision in wet AMD. The key to effective treatment for AMD is early detection.

A retinal scan called an OCT is used to help distinguish wet and dry AMD. If wet AMD is found, then treatment is instigated to prevent further vision loss.



This illustration is a guide only; individual symptoms may vary.

### NORMAL VISION

### MACULAR DEGENERATION VISION

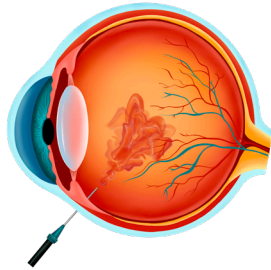


## TREATMENT

At present there is no treatment for dry AMD although there are many experimental drugs being investigated but there is nothing proven to be effective yet. Auckland Eye is involved with some of these trials.

For wet AMD the treatment is an injection of Anti-VEGF drugs into the eye. The most commonly used drug is called avastin. The eye is numbed with drops and the injection is performed in the clinic. For most people there is minimal discomfort. The drugs are very effective and stop progression of visual loss in 90% of patients and improve vision in 60% of patients. The injections do not mean the wet AMD entirely resolves and ongoing treatments and monitoring is required. Most people need at least 3 injections a month apart and then ongoing monitoring and treatment with an increase of the interval between injections up to about 3 months depending on each person's response.

Intravitreal injection

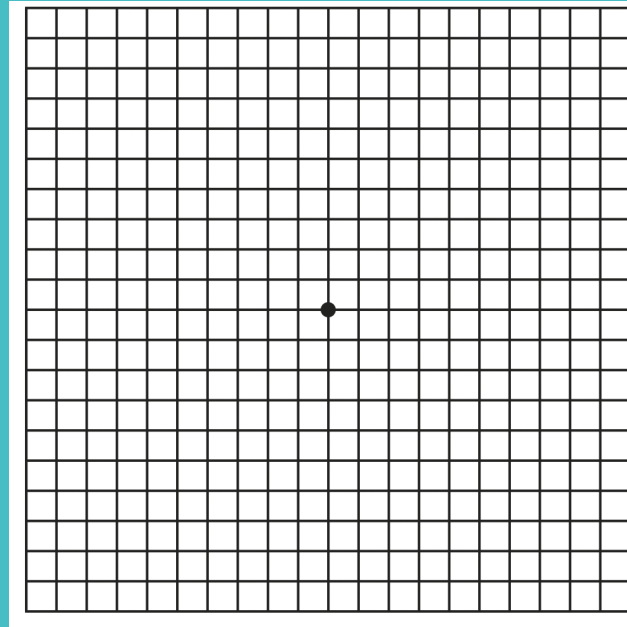


## PREVENTION

Living a healthy lifestyle can help reduce the risk of AMD. Lower blood pressure, low cholesterol and no smoking can help reduce the risk of vision loss associated with AMD. Some people may benefit from particular vitamin supplements to help reduce the risk of progression of AMD. Your ophthalmologist can tell you if it is worth your while to take vitamin supplements or not.

The treatments for wet AMD work best if it is detected early and so regular checks with your optometrist or ophthalmologist is important. Testing to detect distortion is also useful. An Amsler grid can help you with this.

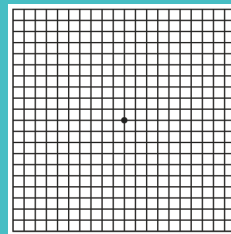
## AMSLER GRID EYE EXAM



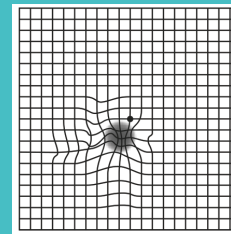
### DIRECTIONS:

1. Wear your reading glasses or contact lenses that you would normally use for reading.
2. Sit or stand approximately 33cm (13in) from the grid in a well-lit room.
3. Cover one eye with your hand and focus on the centre dot with your uncovered eye.
4. If any grid lines appear irregular, wavy, broken or distorted, or if any part of the grid is blurred or missing, please contact your eye care provider immediately, as you may be displaying symptoms of macular degeneration.
5. Repeat with the other eye.

NORMAL VISION



ABNORMAL VISION



8 St Marks Rd, Remuera



Oasis Surgical & Dry Eye Clinic,  
2 MacMurray Rd, Remuera



3 Fred Thomas Dr, Takapuna



Ormiston Medical Clinic, 211 Ormiston Rd



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