



THE
eye clinic
WELLINGTON

ADVANCED SPECIALIST TREATMENTS | COMMITTED PERSONALISED CARE

WHAT YOU NEED TO KNOW

Macular Degeneration

Understanding age-related macular degeneration (AMD)
and protecting your vision



WHAT IS AGE-RELATED MACULAR DEGENERATION?

THE RETINA IS THE LIGHT-SENSITIVE LAYER AT THE BACK OF THE EYE. AT ITS CENTRE IS A SMALL SPECIALISED AREA CALLED THE MACULA.

UNDERSTANDING AMD

Age-related macular degeneration (AMD) is a common eye condition that affects the macula, the central part of the retina responsible for sharp, detailed vision.

The macula allows us to read, recognise faces, drive and see fine detail. AMD mainly affects central vision, while side vision is usually preserved.

HOW DOES AMD HAPPEN?

As we age, the cells that support the macula become less efficient at clearing waste and coping with everyday cellular stress.

In eyes with AMD, small yellow deposits called drusen can build up beneath the retina. Over time, these changes may damage the supporting retinal cells and the light-sensitive cells responsible for central vision.

AMD develops gradually through a combination of ageing, genetics, and lifestyle factors like diet, exercise and smoking. **It is a disease, not a normal part of ageing.**

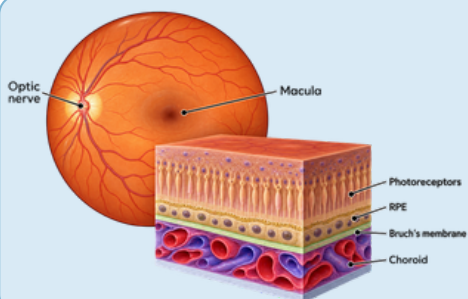


Image: Simulation of how AMD may affect central vision

DRY AND WET

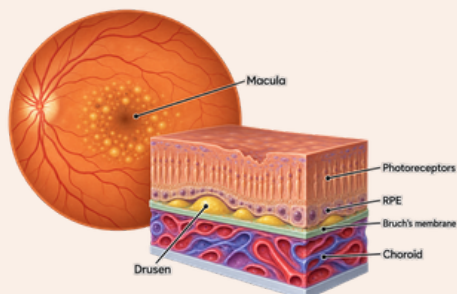
AMD

AMD CAN AFFECT THE MACULA IN DIFFERENT WAYS.
THE TWO MAIN FORMS ARE DRY AMD AND WET AMD.



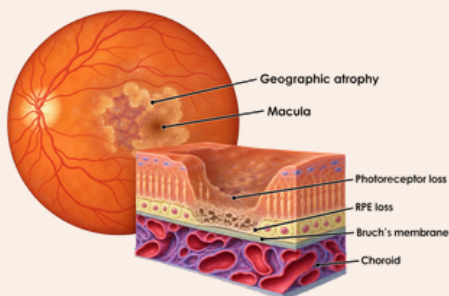
NORMAL MACULA

A healthy macula has an even retinal structure and supports clear, detailed central vision.



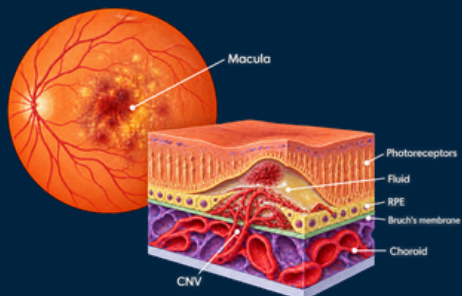
DRY AMD

Drusen and other age-related changes build up beneath the retina. Vision may remain good in the early stages but can slowly deteriorate over time.



GEOGRAPHIC ATROPHY

An advanced form of dry AMD. Areas of retinal cells become permanently damaged or lost, creating patches of reduced or missing central vision.

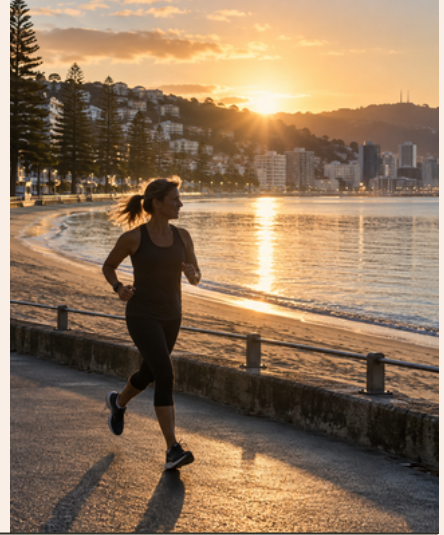


WET AMD

Abnormal blood vessels grow beneath the retina and bleed or leak. This can cause a more sudden change in central vision and usually requires prompt treatment to preserve vision.

WHAT CAN I DO?

ALTHOUGH WE CANNOT CHANGE OUR AGE OR GENETICS, SEVERAL STEPS CAN HELP REDUCE THE RISK OF AMD PROGRESSING.



1

HAVE REGULAR EYE EXAMINATIONS

Your eye care professional may monitor your macula with a dilated retinal examination, retinal photography, optical coherence tomography (OCT) scans and visual acuity testing. OCT provides a detailed cross-sectional view of the retina and can detect very small changes over time.

2

EAT WELL AND STAY ACTIVE

A healthy diet rich in green leafy vegetables, colourful fruit and vegetables, fish, nuts and whole foods is recommended. Regular physical activity may also help reduce the risk of AMD progression.

Avoid smoking: Smoking is one of the most important modifiable risk factors for AMD.

3

AREDS2 SUPPLEMENTS

For people with intermediate AMD, or advanced AMD in one eye, an Age-Related Eye Disease Study 2 (AREDS2) supplement may help reduce the risk of further progression. These supplements do **not** reverse existing damage or improve vision, and it is not recommended for people with no AMD or only very early changes. Ask us whether AREDS2 supplements are suitable for you.

MANAGING DRY AMD MORE THAN SIMPLY "WATCHING AND WAITING"

THERE IS CURRENTLY NO CURE FOR DRY AMD, BUT NEW PROACTIVE TREATMENT OPTIONS ARE CONTINUING TO EMERGE, AND SOME ARE NOW AVAILABLE HERE IN NZ.

A PERSONALISED APPROACH

Our approach is personalised according to :



Your
stage of
AMD



OCT and
retinal
findings



Your vision
and
symptoms



Risk factors
for
progression



Other
eye
conditions

DRY AMD TREATMENTS AVAILABLE AT OUR CLINIC

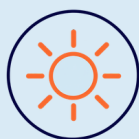


PHOTO-
BIOMODULATION
(PBM)



SUBTHRESHOLD
LASER



MICROCURRENT
THERAPY

Although these treatments cannot cure AMD or guarantee absolute stability, they may provide meaningful support for suitable patients. Your ophthalmologist will assess your scans and discuss which option may be appropriate for you.

NEW TREATMENT OPTIONS FOR DRY AMD



PHOTOBIMODULATION THERAPY (PBM)

Supporting retinal cells with light

PBM uses low-level light in selected wavelengths. It is thought to support mitochondrial function, helping retinal cells manage energy production, oxidative stress and inflammation better. A light-emitting facial mask is positioned over the eyes. Treatment is non-invasive and painless, taking 12 minutes per session, with no downtime afterwards.



SUBTHRESHOLD LASER

Stimulating the retinal pigment epithelium

Subthreshold laser uses precisely controlled, low-energy laser pulses to stimulate the retinal pigment epithelium (RPE) without creating a visible burn, aiming to support retinal function. It is an in-clinic procedure, with same-day treatment available for suitable patients. Treatment takes 5–10 minutes per eye. Dilated pupils may cause blurred vision and light sensitivity for several hours, so you cannot drive immediately afterward.



MICROCURRENT THERAPY

Gentle electrical stimulation

Microcurrent therapy uses very low-level electrical stimulation around the closed eyes to support retinal cell activity and energy production. Small electrodes are positioned around the closed eyes while controlled microcurrent is delivered for 32 minutes, with no downtime afterwards.



CHOOSING THE RIGHT TREATMENT FOR YOU

Each dry AMD treatment option varies in method of delivery, visit frequency, cost, and level of supporting clinical evidence. As the field of dry AMD treatment evolves, larger clinical trials are underway to further confirm their effectiveness.

COMPARISON OF TREATMENT OPTIONS

—■— PBM

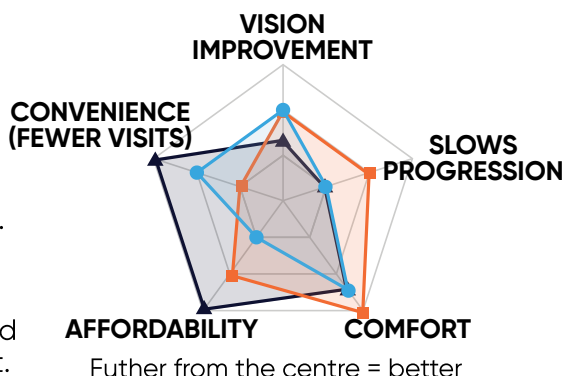
Good vision improvement and great comfort.
Highest number of visits.

—▲— SUBTHRESHOLD LASER

Lowest cost and fewest visits.
Fair vision improvement.

—●— MICROCURRENT THERAPY

Good vision improvement and comfort. Highest upfront cost.



Indicative comparison only. Individual suitability and response vary.

PBM

EVIDENCE

Randomised sham-controlled clinical studies have reported improvements in visual function and retinal outcomes.

TREATMENT PLANS

Initial course :
8 sessions over 4 weeks
Maintenance :
6 sessions over 3 weeks
every 4–6 months

COST

\$2,800 for initial course
\$2,100 for maintenance course

SUBTHRESHOLD LASER

EVIDENCE

Early non-controlled studies report improvements in some measures of retinal function and slowing of progression.

TREATMENT PLANS

Initial course:
1 session
Maintenance:
1 session every 6 months

COST

\$1,186 for one eye
\$1,907 for both eyes

MICROCURRENT THERAPY

EVIDENCE

A randomised sham-controlled study in Canada reported improvements in visual acuity and contrast sensitivity.

TREATMENT PLANS

Initial course:
4 sessions over 10 days
Maintenance:
1 session every 3 months

COST

\$3,500 for initial course
\$875 for maintenance session

All prices are GST inclusive.

Consultation and diagnostic testing fees are charged separately.

WET AMD TREATMENT

ANTI-VEGF INTRAVITREAL INJECTIONS

Wet AMD occurs when abnormal blood vessels grow beneath or within the retina and leak fluid or blood. This can cause sudden central vision changes and may lead to scarring and permanent vision loss if untreated.



HOW DO ANTI-VEGF INJECTIONS WORK?

Vascular endothelial growth factor (VEGF) is a natural protein that promotes blood vessel growth. In wet AMD, excessive VEGF drives the growth of fragile, leaky blood vessels. Anti-VEGF medicines block this signal, helping to reduce leakage and control abnormal vessel growth.



WILL I NEED MORE THAN ONE INJECTION?

Usually, yes. Wet AMD is often a long-term condition requiring life-long regular monitoring and repeated injections.

OCT scans are used to assess and guide the timing of future treatment. Injection intervals may be extended if the macula remains stable.



WHAT DOES TREATMENT INVOLVE?

Treatment is performed in the clinic using sterile technique. Anaesthetic drops are used to numb the eye, and a very small amount of medication is injected into the vitreous jelly inside the eye.

The injection itself takes only a few moments and is usually well tolerated.



WHAT CAN TREATMENT ACHIEVE?

Anti-VEGF treatment can often stabilise vision and prevent permanent central vision loss. Many patients will experience an initial improvement in vision.

Early diagnosis and prompt treatment give the best chance of preserving central vision.

DR LEONG'S TAKE



MY PHILOSOPHY

"Here, at The Eye Clinic, we combine advanced diagnostics and specialist treatments with care tailored to you. My aim is to control disease effectively while avoiding unnecessary treatment and reducing the burden of frequent clinic visits."

LIGHTENING YOUR LOAD

AMD requires life-long care. Where appropriate, I use longer-acting medicines and targeted laser therapies to safely extend treatment intervals, so you can spend less time in the clinic and more time getting on with life.

CHANGING THE NARRATIVE ON DRY AMD

For many years, dry AMD lacked treatment options beyond monitoring. Today, newer therapies such as photobiomodulation (PBM) allow us to take a more proactive approach in selected patients. Our clinical experience, as the first in NZ to offer PBM, has been encouraging. **Our PBM data shows 60% of eyes gain 1-line or more on eye chart tests.**

MANAGING DRY AND WET AMD TOGETHER

Dry and wet AMD can occur in the same eye. Anti-VEGF injections can control leakage from wet AMD, but for many patients, underlying dry AMD may still limit vision.

For this reason, we assess and manage the whole macula, addressing both wet and dry components to give you the best opportunity to improve retinal function and vision.

LET'S TALK.

I'm committed to delivering the best possible advanced specialist care. My team and I will always do our best and we will look after you every step of the way.

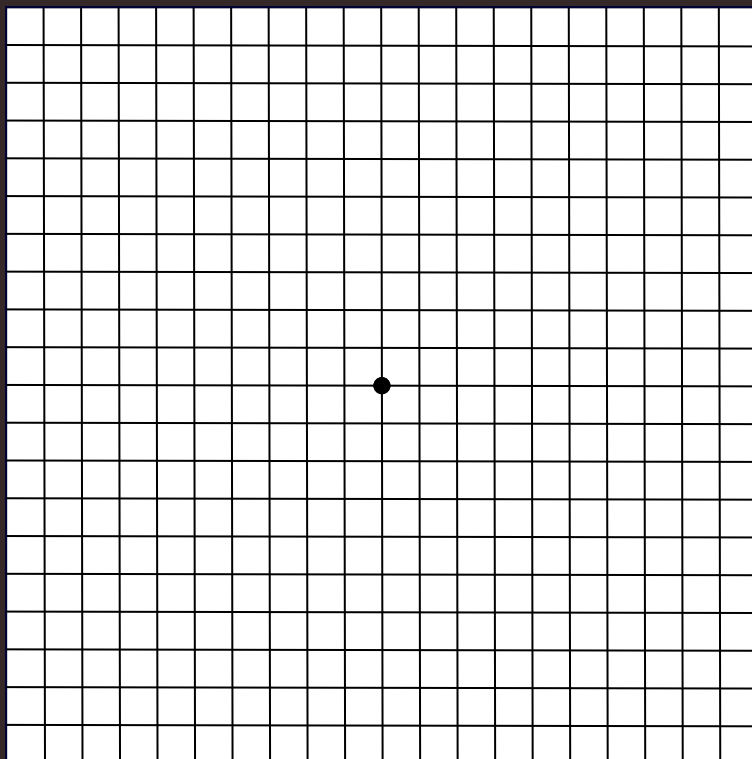
Dr James Leong
Ophthalmologist & Retinal Specialist

LIVING WITH AMD

KNOW WHAT TO WATCH FOR

AMD IS A LONG-TERM CONDITION. REGULAR MONITORING AND NOTICING CHANGES EARLY CAN HELP PROTECT YOUR VISION.

AMSLER GRID



01

Hold this page at your normal reading distance (about 30–33 cm). Wear your reading glasses if needed.

02

Cover one eye at a time and look directly at the centre dot.

03

Check whether the lines look straight and complete.

NEED EXTRA SUPPORT?



AMD information, education and patient support.

0800 622 852
mdnz.org.nz



Low-vision aids, adaptive technology and practical support.

0800 24 33 33
blindlowvision.org.nz



WHEN TO SEEK HELP

If you notice a sudden change in central vision, new distortion, a dark or blank patch, or a rapid drop in vision.

REFERENCES

& FURTHER READING

The information in this booklet is backed by published clinical research. Evidence continues to emerge and evolve, particularly for newer dry AMD treatments.



AMD & AREDS2

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- 3 Jaffe GJ, Boyer D, Hu A, et al. Long-term efficacy and safety of photobiomodulation in dry AMD: LIGHTSITE III 24-month analysis. *Retina*. 2026;46(5):783–795. doi:10.1097/IAE.0000000000004822.

SUBTHRESHOLD LASER

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MICROCURRENT THERAPY

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WET AMD & ANTI-VEGF THERAPY

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FURTHER READING

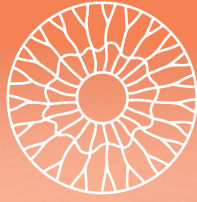
- 8 National Eye Institute. Age-Related Macular Degeneration (AMD). National Institutes of Health.
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- 10 Leong J. Real-world effects of PBM for dry AMD. *NZ Optics*. 6 Apr 2026. Clinical review and early NZ real-world experience with Eye-Light PBM.
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References current as at September 2026.

For the full reading list and article links, scan the QR code or visit eyeclinic.org.nz/blog/amd-references



This booklet provides general information and does not replace individual advice from your ophthalmologist.



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