



Understanding your genetic risk of Age-related Macular Degeneration (AMD).



What is Age-related Macular Degeneration?

Age-related Macular Degeneration (called 'AMD' in the rest of this document) is an eye condition that affects the macula, the part of the retina needed for sharp, central vision. AMD causes gradual blurring or loss of central vision but does not affect side (peripheral) vision or cause total black blindness. Losing central vision can make it harder to see faces, read and drive. AMD may progress slowly and not affect sight for some people, while in others it can progress faster and cause vision loss in one or both eyes. Early signs of AMD may be present without you noticing.

AMD is a leading cause of vision loss in older Americans. It is responsible for nearly half of all cases of blindness and severe vision loss in the US.

Around 20 million people in the US aged 40 and over have AMD – that's around 1 in 8 people.

Once vision is lost to AMD, it cannot be restored. However, there are steps you can take to keep your macula healthy which could delay onset or slow down disease if detected early.

For more information about AMD and its risk factors, visit the American Macular Degeneration Foundation: macular.org

1 Rein DB, Wittenborn JS, Burke-Conte Z, et al. Prevalence of Age-Related Macular Degeneration in the US in 2019. JAMA Ophthalmol. 2022 Dec 1;140(12):1202-1208.

2 Gehrs KM, Anderson DH, Johnson LV, Hageman GS. Age-related macular degeneration-emerging pathogenetic and therapeutic concepts. Ann Med. 2006;38(7):450-71.

3 Klaver CCW, Wolfs RCW, Assink JJM, et al. Genetic Risk of Age-related Maculopathy Population-Based Familial Aggregation Study. JAMA Ophthalmol. 1998; 116(12):1646-51.



20 million
Americans
have AMD¹



AMD **risk**
increases
with age



1 in 8
Americans
over 40
have AMD¹



20% of patients
with early AMD
will progress to
advanced (late-
stage disease)
within 5 years²



AMD has
a strong
genetic link



1 in 2 first degree
relatives* of someone
with AMD will also
develop AMD³

*parents, siblings and children

What are the main risk factors for AMD?

The risk a person will develop AMD in the future, or that already-diagnosed AMD will get worse, depends on a wide range of factors. These include:

- Risk factors such as increasing age, smoking status, a family history of AMD, or Northern European ancestry.
- Clinical features such as large drusen, pigmentary abnormalities, and drusen volume.
- Variations in genes that influence your risk of AMD.
- Not having regular eye exams. If you're at risk of AMD, it's important to have regular eye exams including a check of your macula. Early AMD doesn't have symptoms, so don't wait for your vision to change.

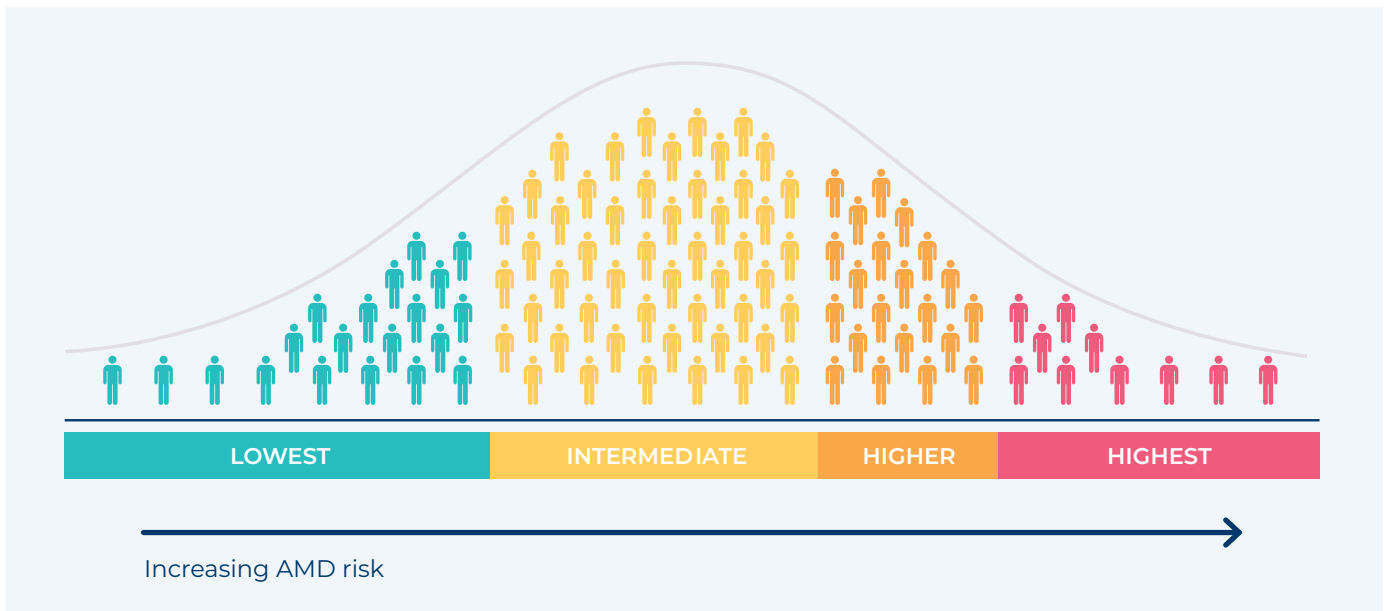
What is a Polygenic Risk Score?

Humans share the same genetic code apart from some differences, called genetic variants, that make each of us unique.

Some of these variants are known to increase the risk of developing certain health conditions, while others reduce the risk.

It is possible to combine the risks from many of these genetic variants to estimate the overall risk of a person developing a particular health condition, such as AMD. This overall risk is known as a polygenic risk score. In some cases, a polygenic risk score (PRS) may also be linked to the potential severity of the health condition and the way it might develop over time.





What is SightScore-AMD?

SightScore-AMD is a saliva test that looks at 70 genetic variants in your genome to create a personalized polygenic risk score for AMD. It estimates your genetic risk of developing AMD in future or, if you already have AMD, the risk your AMD might get worse, relative to others in the community with similar ancestry.

The spread of possible SightScore-AMD results is shown as a 'bell curve', with more people near the middle, and fewer people at the upper and lower risk ends.

Some people's SightScore-AMD will fall into the lowest risk group (■ green in the picture), meaning they have a lower risk than most others in the community. Others will fall into the intermediate risk group (■ yellow), meaning they have a fairly normal risk, while others will fall into the higher (■ orange) or highest (■ red) risk groups, meaning they have a higher risk than most others.

Who is SightScore-AMD for?

- ✓ People with no known risk factors for AMD.
- ✓ Relatives of people with AMD, who do not have signs of AMD currently.
- ✓ People with signs of AMD, but who have not yet been diagnosed.
- ✓ People diagnosed with AMD.



How might my doctor use SightScore-AMD?

Depending on your medical history and eye examination, your doctor may use SightScore-AMD to consider:

- When you should first be checked for AMD.
- How often you should be checked for AMD.
- How to manage your care if you have AMD, including lifestyle modifications and some treatment decisions.
- Whether your close blood relatives (e.g. parents, siblings, adult children) should be checked for AMD.

SightScore-AMD may also be used to help you understand your personal genetic risk. This will allow you to be proactive in your healthcare in regard to any recommendations about follow-up appointments and lifestyle changes that might be worthwhile.

Can SightScore-AMD guarantee I will or will not develop AMD, or have my AMD get worse?

SightScore tells you about your future risk. It is not your destiny.

A high SightScore-AMD does not mean you will definitely develop AMD in future or, if you already have AMD, that it will definitely get worse. Equally, a low risk score does not rule out the possibility of developing AMD or that existing AMD will not get worse in future.

How does SightScore-AMD relate to my family history?

Blood relatives (e.g. parents, brothers / sisters, children) share parts of their genetic code and will have some of the same genetic variants. Thus, for conditions with a strong genetic contribution, such as AMD, a doctor will take account of a person's family history when assessing their risk.

However, a family history is not the same as a person's individual genetic risk.

It is possible to have a high genetic risk of AMD without a family history of the condition. It is also possible to have a family history of AMD and have a low individual genetic risk. This is because a family history does not mean a person has personally inherited the genetic variants that increase the risk of AMD.

SightScore-AMD is a personalized genetic test which uses your own DNA to assesses your individual risk of developing AMD.

Does SightScore test every aspect of genetic AMD risk?

In most people, AMD risk is influenced by many common genetic variants. The SightScore AMD PRS test looks at 70 of these variants, including both common and some less common ones, to estimate overall risk. Most of these variants contribute a small amount to AMD risk individually. There are also a small number of variants in key AMD genes (such as *CFH* or *CFI*) that have a larger individual impact on AMD risk.

While the AMD PRS tests many variants, it does not detect certain rare single gene variants that can have a large effect. In certain cases (e.g. strong family history or other clinical features), your doctor may recommend separate testing for these rare variants.

What is the SightScore process?

STEP 1



Talk to your doctor about SightScore. If appropriate, they will complete a test referral form.

STEP 2



Order and pay for SightScore test. You can do this on our website, or in some cases, your doctor may be able to provide a service that includes the test.

STEP 3



Collect your saliva sample and return to us.

STEP 4



Your DNA will be tested and a SightScore generated.

STEP 5



Most results will be available within 2-3 weeks from the time the lab receives your sample. If you were referred by a doctor, your results would be returned to them.

Key things to know

- SightScore-AMD is a genetic risk test. It does not diagnose AMD.
- A high-risk result does not mean that you will definitely develop AMD in the future or, if you already have AMD, that it will definitely worsen. Equally, a low-risk score does not rule out ever developing AMD or AMD worsening in the future.
- SightScore-AMD only looks at polygenic risk, it does not currently test for rare single gene variants. It does not take into account clinical features and risk factors like age, family history or smoking status.
- SightScore-AMD has been validated in a range of ancestries, however, it has been most extensively validated in populations with European ancestry (like most current polygenic risk scores). Results may be less accurate for people with non-European ancestry.
- For a small number of people tested, we will be unable to provide a SightScore, even after they have provided another sample(s) for retesting. You will be refunded if this happens.
- Your DNA does not change, so your SightScore-AMD will be relevant for your whole life. However, the meaning of your SightScore-AMD may change over time depending on your AMD status and other clinical features. Improved versions of SightScore-AMD may also become available in future as researchers learn more about AMD.

Additional resources:

American Macular Degeneration Foundation (AMDf):

AMDf is committed to the prevention, treatment, and cure of macular degeneration, and empowering those with AMD to live to the fullest.

Visit macular.org

Learn more
about the
SightScore test:



seonixbio.com

SightScore™
AMD



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This pamphlet is intended to provide you with general information. It is not a substitute for advice from your doctor. If you decide to take the SightScore test, your doctor will ask you to consent to undertaking the test. Read it carefully and if you have any questions about the test or consent form, ask your doctor.

This test has not been cleared or approved by the US Food and Drug Administration. The FDA does not require this test to go through premarket FDA review. Pacific Dx is certified under the clinical laboratory improvement amendments act of 1988 (CLIA-88) as qualified to perform high complexity clinical testing.