

Smoking and sight loss

Support throughout central vision loss

The evidence linking smoking to sight loss

Information and support for anyone affected by macular degeneration. Call 0300 3030 111.

Age-related macular degeneration (AMD) is the most common cause of sight loss. More than half of people who are visually impaired in the UK have lost their sight as a result of AMD.

We cannot do anything to change our genes or our age to avoid AMD, but we can stop smoking. The earlier we give up the better, but it is never too late to stop. Even if you already have AMD, it will progress faster if you continue to smoke.

The evidence

Research consistently shows that smoking

increases the risk of developing AMD. Current smokers are up to four times more likely to have AMD than people who have never smoked.^{1, 2}

Smokers are more likely to develop AMD up to 10 years earlier than those who have never smoked.³ Their AMD is likely to progress faster and be less responsive to treatment.⁹ Second hand smoke is also likely to increase the risk of AMD.^{3, 4}

Smoking and genetics

People who are most in danger of getting AMD

are people who smoke and who also have particular genes. For example, research suggests that smokers who have mutations to the HTRA1 gene are 20 times more likely to get AMD than non-smokers.⁵

It is estimated that as much as one third of all AMD is a result of the combination of genetics and smoking.^{1, 2}

How does smoking affect the eye?

Many of the 4,500 chemicals in tobacco smoke are extremely toxic. For example, smoke contains arsenic, formaldehyde and



ammonia. These chemicals are transported to the delicate tissues of the eye through the bloodstream, where they damage the structure of the cells.⁶

The tar in cigarette smoke is likely to contribute to the formation of 'drusen'. These fatty deposits in the retina are the early signs of AMD.⁷

Inhaling cigarette smoke speeds up the ageing process by increasing the activity of 'free radicals'.⁸

These are damaging oxygen-derived molecules, or oxidants, which reduce the body's ability to regenerate cells. The action of free radicals is called 'oxidative stress' and is a major theory of why we age.

In many areas of health we are advised to eat a diet high in antioxidants to help off-set the action of free radicals and this is true in eye health as well. Lutein and zeaxanthin are substances found in high concentrations in the macula and are thought to protect it from ultraviolet light.

Smoking reduces the effectiveness of antioxidants and may deplete the levels of lutein in the macula. People with lower levels of lutein may be more likely to get AMD.⁶

Cigarette smoke also reduces the amount of oxygen reaching the choroid. This is a network of tiny blood vessels that supply the retina. Smoking also damages blood vessels themselves, for example the large blood vessels in the heart as well as the tiny ones in the eye.⁶

E-cigarettes

It is best to quit smoking altogether but if you cannot, even with the support of stop smoking aids, e-cigarettes are probably safer than cigarettes.

What do the experts say about smoking and AMD?

“There is substantial evidence that smoking causes age-related macular degeneration.”
British Medical Association.

“Although smoking is associated with several eye diseases, including nuclear cataract and

thyroid eye disease, the most common cause of smoking related blindness is age-related macular degeneration, which results in severe irreversible loss of central vision.”

Simon Kelly
FRCOphth, Consultant
Ophthalmologist.

“Smoking prevention in school children and adults is the most effective way to reduce AMD and devastating visual loss.”

Phillip Moradi,
Consultant
Ophthalmologist,
Research Fellow,
University College
London.

“Many smokers are unaware of the link between tobacco smoking and blindness. The most common form of blindness caused by smoking is age-related macular degeneration.”
Australian Government.

Benefits of stopping

- Your health – improve your health from the moment you stop
- Your family – passive smoking harms your family
- Your wallet – the average smoker spends £2,000 a year on cigarettes

Help to quit smoking

Contact your GP surgery who will be happy to advise you or see the following:

NHS Smoke Free
www.nhs.uk/smokefree

Quit
www.quit.org.uk

Macular Society helpline
0300 3030 111
Monday to Friday
9am – 5pm
help@
macularsociety.org

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How we can help

We are the national charity for anyone affected by central vision loss. We provide free information and support to improve lives today. We fund research so that one day we can overcome macular disease.

You don't have to be a Society member to use our services. We provide:

Helpline – confidential advice and information on all aspects of macular disease, including diagnosis, treatment and living with central vision loss.

0300 3030 111
Monday to Friday
9am – 5pm
help@
macularsociety.org

Counselling – It's natural to feel upset or angry when you're told you have a macular condition. Many people find it helps to talk, in confidence, to a professional counsellor.

Support Groups – we have a network of almost 300 local groups.

Befriending – Having a macular condition can leave you feeling isolated, especially if it's hard to get out and about. Your

dedicated befriender will call regularly for a friendly, social chat about anything you like including, but not always, macular disease.

Advocacy – help accessing treatments.

Skills for seeing – training to make best use of remaining sight.

Treatment buddy – chat to people who've had treatment by injection for support and advice.

Charles Bonnet buddy – chat to others who've experienced visual hallucinations as a result of a macular condition.

Join us

Many people join the Macular Society so that they can make a difference.

Your support now will give desperately needed help to people losing their sight.

To join today call

01264 350 551

**info@
macularsociety.org**

and be part of a campaign for better care and fund research to find a cure.

AMD causes more than half of all blindness in Britain. 600,000 people have AMD and another 200 people are diagnosed every day.

We urgently need to find a cure and you can help today. We are the only UK charity dedicated to funding research into macular disease.

To make your vital donation and move us closer to a cure call us today or go online.



Macular Society

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Macular Society

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