



Mr Tarun Sharma, MBBS, MD (Glaucoma), FRCSEd

Smoking and Eye Disease

Tobacco smoking is directly linked to many adverse health effects, including high blood pressure, heart disease, and cancer. Smoking is also linked to eye disease.

How does smoking affect the eyes?

People who smoke cigarettes are at increased risk for developing **cataracts**, a clouding of the naturally clear lens of the eye. Cataracts cause a variety of vision problems, including blurry distance vision, sensitivity to glare, a loss of contrast sensitivity, and difficulty seeing colors. When eyeglasses or magnifiers are no longer helpful for someone with cataracts, or when cataracts develop in both eyes, surgery is the only option.

Tobacco smoking is also one of the preventable risk factors for **age-related macular degeneration (AMD)**. Studies have shown that current smokers and ex-smokers are more likely to develop AMD than people who have never smoked. AMD has two forms: dry (called atrophic) AMD and wet (called exudative) AMD. In dry AMD, your retina gradually thins. There is no proven cure for this type of degenerative disease. In wet AMD, new blood vessels grow in the retina, leaking blood or fluid and damaging the macula, the part of the retina responsible for your central vision. Permanent vision loss may occur with both types of AMD, so an attempt at prevention is of utmost importance.

Some studies suggest that in people with high blood sugar levels, smoking may be linked to **diabetic retinopathy**, or damage to the blood vessels in the retina. The optic nerve is also susceptible to damage from smoking. People with poor diets who smoke heavily and drink excessive amounts of alcohol run the risk of developing **optic nerve-related vision loss** (called tobacco-alcohol amblyopia). Certain optic nerve problems, like Leber's hereditary optic neuropathy, can run in families. People with this condition who smoke have increased risk of vision loss. Some patients with thyroid disease (called Graves' disease) may also have eye involvement; smoking may cause their eyes to become worse, and vision loss is also possible.

People who do not produce enough tears to keep their eyes comfortably lubricated have a condition called **dry eye**. For these people, smoking is a significant irritant, worsening the symptoms of scratchiness, stinging or burning of the eyes, and excess tearing from irritation.

How does smoking affect fetal and infant eye health?

Studies have also shown a strong association between smoking during pregnancy and the risk of **invasive meningitis** during early childhood. The risk of **bacterial meningitis** is five times higher among children whose mothers smoked during pregnancy. In addition to other severe health problems, childhood meningitis can cause inflammation of the cornea and pink eye.



Patient information leaflet

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Smoking during pregnancy is also associated **with low birth weight** and **premature birth**. Finally, oxygen therapy given to sustain the lives of premature infants can cause **retinopathy of prematurity**, causing permanent vision loss or blindness in the infant.