



Steroid-Induced Glaucoma

FACT SHEET

(The term 'glaucoma' refers to a characteristic pattern of damage to the optic nerve)

Steroid hormones are naturally produced by the body but can also be artificially synthesised as medications. Steroid medications are predominantly used as anti-inflammatory treatments for a variety of medical conditions such as asthma, eczema, allergy, rheumatoid arthritis and uveitis to name a few. They are made in many forms, including as tablets or liquid, as inhalers for the mouth or nose, as topical medications in the form of eye drops, creams and lotions, and finally as injections into blood, muscle, joints or the eye.

Steroids have beneficial and adverse effects. Treatment with steroids can elevate the pressure in the eye. This is termed Steroid-Induced Ocular Hypertension. If there is persistent eye pressure elevation then damage to the optic nerve of the eye can occur with corresponding damage to the peripheral vision, this is termed Steroid-Induced Glaucoma.

Steroids can elevate the eye pressure in any individual. However children, the elderly, persons with glaucoma, glaucoma suspects and immediate relatives of persons with glaucoma are more likely to have a pressure elevation with steroid use. The type of steroid (how potent it is), dosage and mode of administration can affect the steroid response.

Typically, topical use of steroids in the form of eye drops, creams and lotions are more likely to elevate the eye pressure. Steroid tablets or liquid and steroid injections into the blood or eye can also elevate the eye pressure. It is unclear whether inhalers for the mouth can raise the intraocular pressure, with short-term use suggested to be safer than long-term use. It is recommended that those on long-term inhaled steroids or high dose inhaled steroids should be seeking review by an ophthalmologist or optometrist. A recent Australian study has suggested that steroids in the form of nasal spray do not seem to raise the eye pressure.

Typically, eye pressure becomes elevated 2 to 4 weeks after use of steroids, and in most cases returns back to normal after cessation of medication, although in a small proportion of people, the eye pressure will remain persistently elevated. These persons may require eye drops or laser to lower the eye pressure, and in rare cases may even require surgery to reduce the eye pressure.

Ideally if safe to do so, alternatives to steroid therapy should always be sought. It may not be possible to avoid steroids as they can be useful medications in many conditions. If avoidance is not possible, then efforts should be directed towards use of steroids with the lowest possible potency, or dosage over the shortest period of time.

Before commencing steroids, a review by an ophthalmologist or optometrist should occur to document what your baseline eye pressure is and whether you have glaucoma or your risk for glaucoma. After steroid commencement, regular review by an ophthalmologist or optometrist is necessary, to assess any change in eye pressure or whether you have developed glaucoma. If the eye pressure becomes elevated, then stopping steroids can often reduce the pressure to normal in 1 to 4 weeks. If eye pressure does not return to normal or steroids cannot be stopped, then eye drops to lower the pressure can be commenced or laser can be used in certain circumstances. Very rarely, an ophthalmologist may need to perform eye surgery to reduce the pressure, if it cannot be controlled by other means. Steroids can also affect other parts of your body such as your blood sugar level, blood pressure and bones, so remember to get a check-up by your general practitioner as well.

As with other types of glaucoma, regular review by an eye specialist is critical to ensure that you do not develop substantial vision impairment.

Our Mission: To eliminate glaucoma blindness