

## **Steroid induced glaucoma**

Written by Administrator

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**Steroid-induced glaucoma** affects the trabecular meshwork of the eye, caused by the effects of corticosteroids - any of several steroid hormones secreted by the cortex of the adrenal glands, or any synthetic forms with similar properties. With this form of glaucoma, raised intraocular pressure is due to the reduced outflow facility of the pigmented trabecular meshwork and is usually seen within two to four weeks after starting topical steroids (medication applied to the surface of the body).

Raised intraocular pressure may also occur after prolonged use of large doses of steroids in other forms, eg., inhalers for asthma, steroid tablets taken for arthritis, skin creams, and nasal inhalers: with oral or intravenous steroid use, raised intraocular pressure may occur within a few days.

### **SYMPTOMS**

Any unexplained raise in intraocular pressure whilst using steroid medication, such as Maxidex (dexamethasone) and Pred Forte (prednisolone being more likely to cause a pressure rise) may show developing signs of primary open-angle glaucoma, together with a cup-shaped depression in the head of the optic nerve (optic-nerve cupping) and peripheral (field) loss in an eye with an open anterior-chamber angle.

### **DIAGNOSIS**

The level of rise in intraocular pressure will relate to the strength of the steroid drop being taken. Because steroids are used to treat eye inflammation, it may be difficult to determine the exact cause of increase in pressure. The ophthalmologist will therefore carry out a complete eye examination to assess the degree of inflammation and measure intraocular pressure (recorded in millilitres of mercury (mmHg)).

### **TREATMENT**

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Optic disc photographs may be taken to assess the degree of damage - if any - to the optic nerve, plus a visual-field test to determine the range of peripheral vision. Advice may be given to gradually discontinue topical medication in one eye to see if the pressure improves. Reduce the concentration or dosage of the steroid. Change to a less potent steroid such as FML (fluorometholone), Vexol (rimexalone) or Lotemax (loteprednole). Change to an oral nonsteroidal anti-inflammatory drug, eg. ibuprofen. Treat as for open-angle glaucoma. Where inflammation is moderate to severe, steroids are usually increased initially to reduce the inflammation using a topical hypotensive agent such as a prostaglandin analogue or a beta-blocker.

## OUTLOOK

Patients with a family history of glaucoma, diabetes, high myopia (nearsightedness) or from a black race, are more likely to develop a steroid response and subsequent glaucoma. Any sudden, unexplained eye symptom whilst taking steroid medication should seek medical advice immediately.

