



# Annual Health Check Information for GPs

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## Eye Conditions

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**Below is Down's syndrome specific information. The information is for GPs and is to be used alongside DSA's Adult Health Book.**

The eye conditions that occur in adults with Down's syndrome are not unique to the syndrome – all occur in the general population. However, some conditions are more common in Down's syndrome, or occur at a younger age in Down's syndrome.

### Refractive errors

- Refractive errors are more likely in patients with Down's syndrome and tend to be more severe.
- Refractive errors onset in childhood and should be corrected in early years.
- Myopia may worsen in adulthood, in association with cataract and/or keratoconus.
- Regular eye examinations are needed, at least at 2-yearly intervals.
- Most adults with Down's syndrome can attend a high street optometry practice, but may need a longer examination time. If the patient (family or carers) experience difficulty in finding a local optometrist with sufficient skills to examine less able patients, the SeeAbility Lookup website has a register of optometrists with an interest in patients with learning disability:

<https://www.seeability.org/our-services/find-optometrist/>

### Presbyopia

- This is the loss of accommodation (near focusing) with age, which becomes noticeable in typical adults at around 45 years of age. Since age related health issues can occur earlier in Down's syndrome, it may be that presbyopia appears earlier.
- Presbyopia is often ignored in adults with learning disabilities, perhaps because of the common use of the term 'reading glasses'; if a person does not read, it may be that family and carers do not consider spectacles for other near tasks.
- Many adults with Down's syndrome do read, and others will certainly indulge in work or hobbies that require good near vision, so need 'near' glasses.
- Eye examinations should be recommended throughout adulthood, at no less than 2-yearly intervals.

## Blepharitis

- This is inflammation of the eye lid margins, common in the general population and has a prevalence of about 50-60% in Down's syndrome.
- Responds very well to lid hygiene measures and a referral to a local optometrist for advice is usually all that is needed.
- Rare stubborn cases may benefit from referral to a hospital eye clinic.
- Treatment of blepharitis is important both for the patient's wellbeing and comfort, and also because untreated blepharitis can result in severe ocular infection and ulceration.

More information is available at:

<http://www.nhs.uk/conditions/Blepharitis/Pages/Introduction.aspx>

## Conjunctivitis

- Mild cases of red eye should be referred to an optometrist, who can usually determine the type of conjunctivitis and advise accordingly.
- Routine use of antibiotic preparations without diagnosing the type of condition is not advisable.
- The condition would only rarely require hospital referral.

## Keratoconus

- This is a condition in which the cornea steepens into an abnormal conical shape and becomes thin and potentially fragile.
- Prevalence of around 10% in Down's syndrome, average onset at adolescence to late teens.
- Causes (an increase in) short-sight and distortions of vision that cannot be corrected with spectacles.
- Often progressive, can lead to severe distortions, corneal scarring and visual impairment.
- Can be managed well with contact lenses, and people with Down's syndrome should be offered the same opportunity to try contact lenses as members of the general population. There are cases of very successful lens wearers with Down's syndrome.
- In late-stage progressive keratoconus, corneal transplant is the standard treatment and should also be offered to people who have Down's syndrome.
- Learning disability should never be a contra-indication for referral.
- New therapies are becoming available that aim to halt keratoconic progression; the most well established one is collagen cross-linking. This therapy is only viable in the early stages, and therein lies a challenge. Unlike keratoconus in the general population, decreasing vision is much less likely to be reported in people with Down's syndrome. Therefore regular surveillance is required by an optometrist who is skilled at retinoscopy.
- There is an argument, therefore, for more frequent eye examinations during teenage years with the detection of early keratoconus as the aim.

## **Cataracts**

- Cataracts appear in much younger adults than would be expected in the general population.
- The major symptom in early cataract is glare; vision is highly dependent on the amount or direction of light. This may mean that a person's visual abilities appear to fluctuate; he or she may be able to perform a task in some situations and not in others. The frustration of fluctuating vision can cause challenging behaviour.
- Any patient with unexplained change in behaviour should be recommended to seek an eye examination.
- Understanding the condition is the key to management in early stages. Preventing glare by rearranging lighting and household furniture, increasing contrast of tasks and the simple provision of a wide-brimmed hat for outdoor use can make a big difference to quality of life.
- Cataract extraction is highly successful and it may help to refer patients earlier so that they can become familiar with the hospital clinic and so that appropriate planning for aftercare can be put in place in plenty of time.
- As with other conditions, learning disability should not be a contra-indication for referral.

## **Mobility difficulties**

- Some adults with Down's syndrome struggle with stairs and steps and mistake changes in floor covering for a step. This leads to loss of confidence when walking and can be quite debilitating.
- Similar difficulties can manifest in children, and may be life-long.
- An adult onset of such symptoms may be associated with depression, anxiety or early stage dementia.
- Symptoms are often considered by carers to indicate sight problems, and may be due to loss of binocular vision or to cataract.
- An eye examination should be the first line of investigation, but when eye problems are excluded further investigations will be needed.

## **Age related eye conditions**

- Adults with Down's syndrome are presumably at similar risk of eye conditions associated with age.
- Conditions such as entropion and ectropion (in-turned and out-turned eye lids) should be referred in the usual way.
- Age related macular degeneration and glaucoma may not be obvious to family and carers in the early stages, so regular eye examinations are essential throughout life.
- Adults with learning disabilities may be unable to voice concerns. It is therefore incumbent on family and carers to ensure regular health checks, and the responsibility of health care professionals to check that these are carried out.

## Useful websites

### Down Syndrome Ireland

<https://downsyndrome.ie/information-centre/health/vision/>

### Down Syndrome Medical Interest Group UK

Basic Medical Surveillance Essentials for People with Down Syndrome. Ophthalmic Problems (Revised 2012) One of a set of guidelines drawn up by the Down Syndrome Medical Interest Group (DSMIG (UK))

<http://www.dsmig.org.uk/wp-content/uploads/2015/09/Guideline-vision-revision-2012.pdf>

### SeeAbility

<https://www.seeability.org/>

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**The Down's Syndrome Association (DSA)** is the only organisation in England, Wales and Northern Ireland which supports people with Down's syndrome at every stage of life.

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