

Patient Information

Duane's syndrome

Introduction

This syndrome is a congenital (present from birth) eye movement condition. It can affect one or both eyes. Unilateral (affecting one eye) cases are more frequently reported than bilateral (affecting both eyes) cases. Females are more commonly affected than males.

What features may be noticed in Duane's syndrome?

- **Restricted movement** – of one (unilateral Duane's syndrome) or both eyes (bilateral Duane's syndrome), usually when looking from side to side (horizontal eye movements).
- **Eyelid changes** – when looking from side to side, the affected eyelid is often narrow when looking to one side (most often when the affected eye is looking towards the nose) and widens when looking to the other side (most often when the affected eye looks away from the nose).
- **Head posture** – the head may be turned to one side, to help keep the eyes working together.
- **Head movement** – when looking towards the area of restriction, the head will be moved to look in that direction, rather than moving the eyes alone.
- **Upshoots / downshoots** – one or both eyes may drift up or down when looking to one side (most often when the affected eye is looking towards the nose).
- **Squint** – there may be a misalignment of the eyes (squint) when the head is held in a straight-ahead position.
- **Amblyopia** – vision may be reduced in one eye.

What causes Duane's syndrome?

There are six muscles around each eye. Each muscle is supplied by one of three nerves. It is the nerve that is responsible for providing a signal for the muscle to move. In Duane's syndrome, it is thought that 'mis-wiring' of the nerves causes problems with eye movements, as the eye muscles do not receive the correct signals to move the eyes from side to side.

What is the treatment for Duane's syndrome?

Observation – children with Duane's syndrome are usually monitored in the Orthoptic Department for a period of time to ensure their vision develops normally. Children with Duane's syndrome usually have good vision, sometimes helped by turning their head to one side. The condition remains stable over time. The restricted eye movements will not get worse, nor will they get better. If your child turns their head to one side to compensate for the restriction of eye movements, they would probably feel more comfortable sitting in the centre or to one side of the classroom.

Glasses – glasses may be required if there is a coincidental focusing error. The need for glasses is not associated with Duane's syndrome.

Amblyopia treatment – occlusion therapy (patching / atropine eye drops) may be needed if vision is weaker in one eye.

Surgery – surgery is rarely done for patients with Duane's syndrome. Surgery may be required if there is a significant squint in the straight-ahead position or if there is a head posture which causes discomfort.

What if I have any problems or questions after reading this leaflet?

Please contact the **Orthoptic Department** at Russells Hall Hospital on **01384 456111 ext. 3636** (9am to 4.30pm, Monday to Friday).

Eye emergency, out of hours

In case of an eye emergency after the closing hours of the Eye Clinic (including weekends and bank holidays), please contact the eye doctor on call by ringing the switchboard at:

Birmingham and Midland Eye Centre on 0121 507 4440

The doctor on call is usually based at the Eye Centre, City Hospital, Dudley Road, Birmingham. They may need to call you back, and if necessary, they will arrange for you to visit them.

Note: The information in this booklet is provided for information only. The information found is **not** a substitute for professional medical advice or care by a qualified doctor or other healthcare professional. **Always** check with your orthoptist if you have any concerns about your condition or treatment. This is only indicative and general information for the procedure. Individual experiences may vary and all the points may not apply to all patients at all times. Please discuss your individual circumstances with your orthoptist.

We are always happy to answer any questions regarding your child's treatment. If, after reading this leaflet, you still have concerns or questions, please call the department on **01384 456111 ext. 3636**.

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For further information visit:

www.orthoptics.org.uk/patients-and-public/

This leaflet can be downloaded or printed from:

<http://dgft.nhs.uk/services-and-wards/ophthalmology/>

This leaflet can be made available in large print, audio version and in other languages, please call 0800 073 0510.

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