

Orthoptic Department

Duane's Syndrome

What is Duane's Syndrome?

Duane's Syndrome is an abnormality of the eye muscles that is present from birth. It is caused by a faulty nerve supply to one of the eye muscles, known as the **lateral rectus**. This means the muscle does not receive a signal from the nerve telling it to move when the child attempts to move the eye outwards. Duane's Syndrome can affect either one or both eyes.

What are the usual features of Duane's Syndrome?

- Reduced outward movement of the affected eye
As the nerve supply is abnormal, the lateral rectus muscle does not function normally and the eye is unable to move outwards as it should.
- A probable squint
A lot of children with Duane's Syndrome will have a convergent squint (one eye turning in) when they are looking straight ahead. Some of these children can compensate for this by turning their head slightly. By doing this they can keep their eyes straight and this is why children with Duane's Syndrome typically develop good 3D vision and visual acuity.
- Retraction of the eye when looking inwards
When the eye moves inwards, a signal is sent to another one of the eye muscles, the **medial rectus**, as well as the **lateral rectus**. This causes both of the muscles to contract at the same time and pulls the eye back into the eye socket. This can also cause some limitation of the inward movement.



Treatment for Duane's Syndrome

Most children with Duane's Syndrome do not require any specific treatment. They will still be reviewed in clinic to make sure their vision and 3D vision is developing properly.

Occasionally, surgery may be needed in the following cases:

- If there is a large squint present when the child is looking straight ahead that they cannot control with a head posture.
- If the child is getting neck problems/pain due to a head posture.
- If there are any other significant ocular muscle problems.

There is currently no surgery that would help improve the outward movement of the eye.

Does it affect vision?

Duane's Syndrome may affect vision if there is an associated squint or a need for glasses. If vision is reduced in one eye, patching treatment may be necessary to improve this.

We hope this leaflet will help you to understand the condition and the treatment options available. If you feel you need more information or have any concerns, please contact the department on 024 7696 6520.

The Trust has access to interpreting and translation services. If you need this Information in another language or format, please contact 024 76 96 6520 and we will do our best to meet your needs.

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