

Brown syndrome

Brown syndrome is a rare condition where one eye cannot move upwards, particularly when looking towards the nose. This usually happens from birth although rarely it can begin later.

What causes it?

There are six muscles on the outside of each eyeball which allow us to turn the eye in all the directions we want to look. Most of the muscles run in a straight line from the back of the socket to attach to the eyeball. One of the muscles, called the superior oblique muscle, is particularly long and it changes direction at a sharp angle before it attaches onto the top of the eyeball. At the point where it changes direction, the muscle runs through a pulley made of a small ring of cartilage attached to the bone.

We don't completely understand why Brown syndrome happens when people are born with it. Some doctors think that the muscle is too short, or that it gets stuck at the point where it changes direction, so that the muscle can't work properly. Another possibility is that the muscle fibres do not contract properly. Occasionally, the cause may be due to abnormal development of other tissue in the socket, which prevents a normal

superior oblique muscle from turning the eye upwards. It is possible, but unusual, for Browns to occur in more than one person in one family, so some cases may be genetic.

A condition like Brown syndrome can occur later in life after injury or inflammation in the socket, or around the superior oblique muscle.

How the world looks to you

For most people, Brown syndrome does not cause any problem with their eyesight. In some cases, people may notice double vision some of the time or, rarely, most or all of the time.

How you look to the world

The condition is usually not noticeable most of the time, unless you are trying to look upwards. When trying to look up, one eye will move more than the other and the difference may be noticeable. Some people with Brown syndrome may tilt their head up or to the side when trying to look up or even when looking straight ahead.

How can the doctor tell?

The orthoptist and the doctor will be able to diagnose Brown syndrome



simply by watching how your eyes move when trying to look in different directions.

Getting it sorted

In the eye clinic, the orthoptists will check from time to time to make sure vision develops normally. Although most people will have normal vision, sometimes glasses are needed to get the best possible vision. Young children sometimes need to wear an eyepatch for a few hours a day to make sure the Brown eye doesn't become lazy (see badly).

Usually nothing else is needed to treat an eye with Brown syndrome. In some children, the problem gets better on its own as they get older, and often it is simply less noticeable as children get taller and don't have to look upwards at the world so much.

If the condition causes a lot of problems, such as having to tilt the head a lot or double vision, doctors can do an operation to make the Brown eye move better. The operation is a special kind of squint operation where the doctors make the tendon a bit longer. However, the operation does have a risk of damage to the muscle so this would be discussed with you and your parents to be sure if it's right for you.

Author: Moorfields paediatric information group
Revision number: 2
Approval date: March 2018
Review date: March 2020

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Information and advice on eye conditions and treatments from experienced ophthalmic-trained nurses.

Patient advice and liaison service (PALS)
Phone: 020 7566 2324/ 020 7566 2325
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Moorfields' PALS team provides confidential advice and support to help you with any concerns you may have about the care we provide, guiding you through the different services available at Moorfields. The PALS team can also advise you on how to make a complaint.

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