

Astigmatism

Astigmatism (pronounced ah-stig-mah-tism) is a common and treatable eye condition. The front surface of a normal eye is round like a football. But if you have astigmatism the eye is shaped more like an oval rugby ball, making your vision blurred. A person with astigmatism will usually also be short- or long-sighted. People can be born with astigmatism or it can develop later in life. It can be treated by wearing glasses or contact lenses, or by having laser surgery.

How you see the world

Many of us have a little astigmatism and our sight is unaffected. If the astigmatism is more severe you might notice:

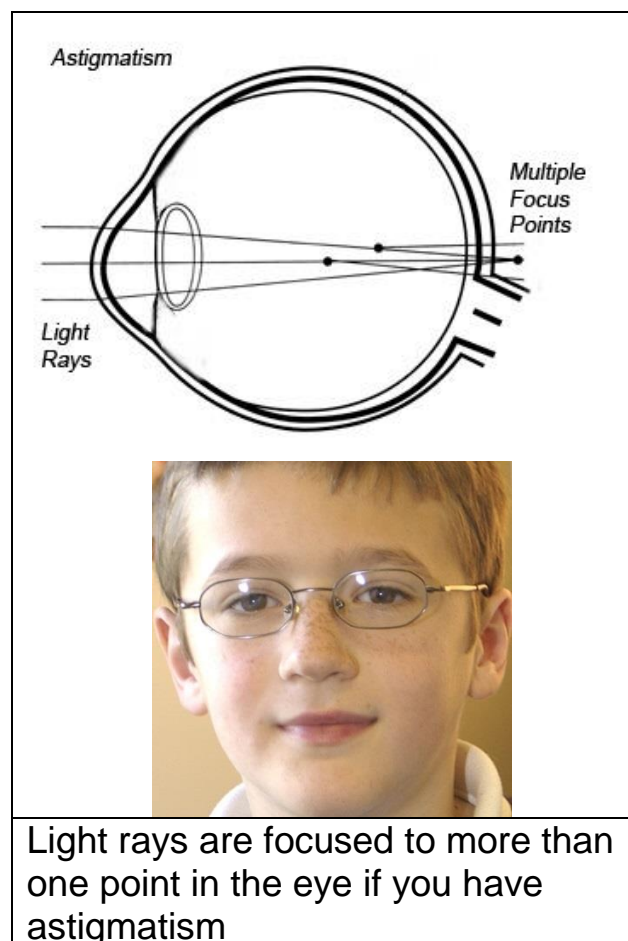
- blurring and distortion of near or far-away objects
- headaches when trying to focus
- tired eyes

How the world sees you

Your condition is not visible to other people, but you might need to wear glasses or contact lenses.

What causes astigmatism?

The exact cause is usually unknown although genes inherited from your parents can play a part. Sometimes



astigmatism can develop after an eye injury, surgery or because of an eye disease. Astigmatism is **not** caused by reading in bad light, using a computer or watching too much television. The cornea ('window') at the front of your eye and the lens inside work together to create an image that is in focus. The cornea and the lens must form a smooth round shape, so that



light passing through becomes sharply focused at the back of the eye, allowing you to see clearly.

Astigmatism occurs when the shape of the cornea or lens is not round (like a football) but oval (like a rugby ball). This changes the path of light so that the image formed at the back of the eye is not sharply focused.

How can the doctor tell if you have astigmatism?

An eye specialist can examine your eye to detect the problem. They might do a test called a retinoscopy (refraction or sight test) to measure the focusing power of your eyes, or use a keratometer or keratoscope machine, which shines a light at the eye and measures the distortion of light reflected back by the cornea.

Treating astigmatism

Glasses and contact lenses can be used to correct vision. Mild astigmatism might not require treatment unless you do something which puts demands on your eyes, such as using a computer screen for long periods.

If the front surface of the cornea is uneven, hard contact lenses can help create a smooth, even surface. Normal soft contact lenses don't always work well as they mould to the uneven surface of the cornea, but special "toric" soft lenses can be used. Refractive surgery – where the cornea is reshaped by laser, small incisions (cuts) or implants – is also an option but this is usually only suitable for adults, when the eye has finished growing.

An optometrist can discuss which treatment best suits your lifestyle. If you have astigmatism or any other eye problems, you should get your eyes checked regularly.

Stopping it before it starts

Astigmatism cannot be prevented, but can be corrected with glasses or contact lenses.

Author: Moorfields paediatric group
Revision number: 4
Approval date: July 2021
Review date: July 2024

Moorfields Eye Hospital NHS Foundation Trust
City Road, London EC1V 2PD
Phone: 020 7253 3411
www.moorfields.nhs.uk

Moorfields Direct telephone helpline

Phone: 020 7566 2345
Monday-Friday, 8.30am-9pm
Saturday, 9am-5pm
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
Email: moorfields.pals@nhs.net
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.

