



# Narrow angles

## What does narrow angle mean?

The “drainage angle” is the part of the eye that drains fluid from the front chamber of the eye. This drainage angle sits between the front of the iris (the coloured part of the eye) and the cornea (the clear window at the front of the eye). If this drainage gap is narrow, it can, in some circumstances, reduce the drainage of fluid and result in an increased eye pressure. If the pressure rises quickly, this is termed “acute angle-closure”; this is very rare but can require urgent treatment. More commonly, over time, high eye pressure can damage the optic nerve, resulting in loss of vision (angle-closure glaucoma). However, in the majority of people, having a narrow angle does not result in high eye pressure or glaucoma.

## What is my risk if I have narrow angles?

People who have narrow angles, without any other significant risk factor or abnormality of the eye (see below) have a risk of around 1 in 1000 per year of developing high pressure which causes symptoms. A large research trial conducted in China showed that

even in patients deemed to have the highest risk, the risk of developing an episode of high pressure was very low. In the UK, the Royal College of Ophthalmologists and the College of Optometrists (the two eyecare professional bodies) have advised that most people with narrow angles can be monitored by their opticians in the community.

## What happens when I have high pressure?

Developing a very high eye pressure quickly (acute angle-closure) can lead to the following symptoms:

- Seeing haloes around light
- Eye pain, or headache around the affected eye
- Blurred vision
- A red eye
- Nausea and vomiting

If one of these symptoms occurs in isolation, it is uncommon that there is a problem. If you get two or more of these symptoms for more than an hour, it is important to attend Accident & Emergency and seek medical attention, preferably from an ophthalmologist (eye



specialist doctor). Urgent treatment usually includes pills, eye drop medications and laser treatment.

If the high pressure develops more slowly, it may be that there are no appreciable symptoms initially; this is termed “chronic angle-closure”. This can be identified in a routine optician’s test.

### Can this cause Glaucoma?

Persistent high pressure can cause damage to the optic nerve and irreversible vision loss. The optic nerve is the main nerve of the eye which carries all our visual information to the brain for interpretation. When the optic nerve is damaged this can limit what we see in our field of vision. When the high pressure is caused by narrow drainage angles, this is termed “angle-closure glaucoma”.

### Who should have preventative treatment?

In people at high risk of angle-closure glaucoma, a preventive treatment, laser iridotomy, create a small hole in the iris which acts as an alternate route for fluid flow. This minimises the risk of an attack of high pressure and opens the drainage angle in most patients. Please refer to the Moorfields “Laser peripheral iridotomy” patient information leaflet for further information.

Recent research has shown a low risk of acute angle-closure in most people

with narrow angles (and no signs of high pressure or glaucoma). For this reason, laser iridotomy is no longer recommended for the majority of these people.

There are some people who are at higher risk due to other risk factors or eye conditions, who we do recommend laser iridotomy therapy for:

- People who have only one ‘good’ or ‘functioning’ eye
- Vulnerable adults, who may not be able to report ocular or visual symptoms
- People who are very long sighted (>6.00 Dioptres)
- People with a family history of high-pressure attacks
- People with diabetes, who require frequent eye exams that require pupil dilation
- People residing in remote locations, where access to eye care may not be possible in a timely manner
- People using certain "anti-cholinergic" medications: tricyclic antidepressants (e.g. amitriptyline), specific asthma medication (ipratropium bromide - Atrovent, tiotropium bromide - Spiriva), specific medication for abdominal cramps (e.g. hyoscine butylbromide - Buscopan), specific medication for urinary incontinence (e.g. oxybutynin)





## What if I have narrow angles but no treatment is required?

We recommend yearly check-ups with your local optometrist. Optometrists can carry out the routine tests that can screen for signs of glaucoma, including eye pressure measurement, visual field testing and assessment of the optic nerve head. If you develop persistent symptoms of high eye pressure (see above), then please attend Accident & Emergency for urgent review.

Author: Minak Bhalla Glaucoma Fellow, Mr Hari Jayaram, consultant ophthalmic surgeon and glaucoma service director, Anthony Khawaja, consultant ophthalmologist, Paul Foster consultant ophthalmologist  
Revision number: 1  
Approval date: March 2023  
Review date: March 2026

**Moorfields Eye Hospital NHS Foundation Trust**  
**City Road, London EC1V 2PD**  
**Phone: 020 7253 3411**  
**[www.moorfields.nhs.uk](http://www.moorfields.nhs.uk)**

## Moorfields nurse-led 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 or 020 7566 2325

Email: [moorfields.pals@nhs.net](mailto:moorfields.pals@nhs.net)

Opening hours: Monday to Friday, except bank holidays

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.

## Your right to treatment within 18 weeks

Under the NHS constitution, all patients have the right to begin consultant-led treatment within 18 weeks of being referred by their GP. Moorfields is committed to fulfilling this right. For more information about your rights and responsibilities, please visit the Moorfields website and search 'Referrals to treatment (RTT)'. To learn more about your rights under the NHS constitution, visit [www.nhs.uk/choiceinthenhs](http://www.nhs.uk/choiceinthenhs)



