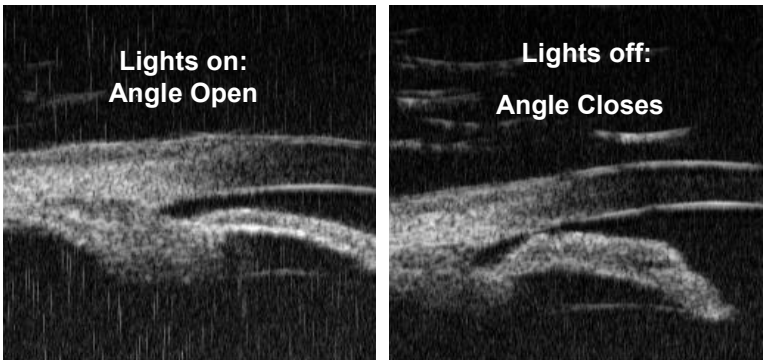
# Gonioscopy should be performed using the minimal possible levels of illumination in order to reliably detect appositional angle closure

## *The Science behind the Tip*

Anterior chamber angle width varies dramatically with illumination (figure and video in ref. 1)[1,2]. Visible wavelength based examination methods such as gonioscopy can cause pupillary constriction and thereby open an angle in which there is irido-trabecular contact at lower light levels. The narrowest, dimmest possible slit-lamp beam with which the corneal wedge is still identifiable should be used in a fully darkened room. A 1mm long beam is sufficient and should be kept well away from the pupil.




Other subtle signs of iris-trabecular meshwork apposition such as pigment smudging[3] are useful adjuncts to direct observation of iris-meshwork contact but are no substitute for adequate examination conditions. Ultrasound biomicroscopy and newer imaging techniques such as anterior chamber ocular coherence tomography allow cross-sectional imaging without inducing miosis.

## *References*

1. Gazzard G, Foster PJ, Friedman DS *et al*. Light to dark physiological variation in irido-trabecular angle width. *Br J Ophthalmol.* 2004; Video http://bjo.bmj.com/content/suppl/2004/10/22/88.11.DC1/88_11__report.full.
2. Gazzard G, Friedman DS, Devereux JG *et al*. A prospective ultrasound biomicroscopy evaluation of changes in anterior segment morphology after laser iridotomy in Asian eyes. *Ophthalmology.* 2003;110:630-8.
3. Foster PJ, Gazzard GA, Garway-Heath T *et al*. Pattern of trabecular surface pigment deposition in primary angle closure. *Arch Ophthalmol.* 2006;124:1062.

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