

Astigmatism

[View the current Astigmatism InDepth page on BioPortfolio.com \(PDF\)](#)

(<http://www.bioportfolio.com/indepth/Astigmatism.html>) - Regularly Updated.

In optics, astigmatism is when an optical system has different foci for rays that propagate in two perpendicular planes. If an optical system with astigmatism is used to form an image of a cross, the vertical and horizontal lines will be in sharp focus at two different distances. The term comes from the Greek ἄσματος meaning "without" and ἄσημα "a mark, spot, puncture". ([From the Wikipedia article Astigmatism](#).)

Recent Publications on Astigmatism:



- [Accuracy of WASCA Aberrometer Refraction Compared to Manifest Refraction in Chinese Adult Myopes.](#)
*PURPOSE:*To investigate the accuracy of the Carl Zeiss Meditec Wavefront...20th November, 2009
- J Refract Surg. 2009 Nov 1;25(11):1026-1033. doi: ([DOI Direct Link](#))
- [Stereoacuity After Refractive Lens Exchange with AcrySof ReSTOR Intraocular Lens Implantation.](#)
*PURPOSE:*To evaluate stereoacuity before and after refractive lens exchange...20th November, 2009
- J Refract Surg. 2009 Nov 1;25(11):1000-1004. doi: ([DOI Direct Link](#))
- [Outcomes of Myopic LASIK with and Without NIDEK Active Torsion Error Correction.](#)
*PURPOSE:*To compare refractive outcomes and higher order aberrations of...20th November, 2009
- J Refract Surg. 2009 Nov 1;25(11):985-990. doi: ([DOI Direct Link](#))
- [The multifaceted career of Louis Borsch.](#)
*John Louis Borsch Jr, MD (1873-1929), was an ophthalmologist from...*18th November, 2009
University of Toledo College of Medicine, Toledo, OH 43623-3081, USA.- Arch Ophthalmol. 2009 Nov;127(11):1534-7. ([DOI Direct Link](#))
- [\[Methods of calculating surgically induced astigmatism\]](#)
*Evaluation of surgically induced astigmatism is important, as it allows to...*18th November, 2009
Z Kliniki Chorob Oczu I Katedry Chorob Oczu Uniwersytetu Medycznego w- Klin Oczna. 2009;111(7-9):249-52.
- [Correction of astigmatism after penetrating keratoplasty using the Acri.Comfort toric intraocular lens.](#)
*PURPOSE:*To compare refractive outcomes and higher order aberrations of...17th November, 2009
The Eye Health Centre, Brisbane, Australia E-mail:- Clin Exp Optom. 2009 Nov 11. ([DOI Direct Link](#))
- [Axis alignment and rotational stability after implantation of the toric implantable collamer lens for myopic astigmatism.](#)
PURPOSE: To assess axis alignment and stability of the Toric Implantable...17th November, 2009
Magrabi Eye & Ear- J Refract Surg. 2009 Oct;25(10 Suppl):S939-43. doi: ([DOI Direct Link](#))
- [Visual and optical performance before and after rotation of a misaligned STAAR Toric Implantable Collamer Lens.](#)
PURPOSE: To document the use of the NIDEK OPD-Scan II/Station as a...17th November, 2009

- Ophthalmology Department, Faculty of Medicine Ain Shams University, Cairo,- J Refract Surg. 2009 Oct;25(10 Suppl):S934-8. doi: ([DOI Direct Link](#))
- [LASIK with the optimized aspheric transition zone and cross-cylinder technique for the treatment of astigmatism from 1.00 to 4.25 diopters.](#)
*PURPOSE: The predictability and safety of LASIK with the optimized...*17th November, 2009
Magrabi- J Refract Surg. 2009 Oct;25(10 Suppl):S927-30. doi: ([DOI Direct Link](#))
 - [Implantable Collamer Lens Implantation and Limbal Relaxing Incisions for the Correction of Hyperopic Astigmatism After Laser In Situ Keratomileusis.](#)
*PURPOSE:: To report on a patient in whom hyperopic Implantable Collamer...*13th November, 2009
From the *Department of Ophthalmology, Kitasato University School of- Cornea. 2009 Nov 11. ([DOI Direct Link](#))
 - [Transconjunctival Sutureless 25-Gauge Versus 20-Gauge Standard Vitrectomy: Correlation Between Corneal Topography and Ultrasound Biomicroscopy Measurements of Sclerotomy Sites.](#)
*PURPOSE:: To determine the correlation between corneal shape changes and...*13th November, 2009
From the *Ophthalmology Unit, S. Marta Hospital, Catania University,- Cornea. 2009 Nov 11. ([DOI Direct Link](#))
 - [Effect of intravitreal bevacizumab \(avastin\) on the growing rabbit eye.](#)
*PURPOSE: To study the effect of intravitreal bevacizumab (Avastin) on the...*11th November, 2009
Department of Ophthalmology, Rabin Medical Center, Beilinson Campus, Petah- Curr Eye Res. 2009 Aug;34(8):660-5.
 - [Two-step LASIK after penetrating keratoplasty.](#)
*PURPOSE: The point of interest of this retrospective case review is to...*10th November, 2009
University Eye Hospital, Ludwig-Maximilians University, Munich, Germany.- Clin Ophthalmol. 2009;3:581-6. Epub 2009 Nov 2.
 - [Preliminary Results of Subconjunctival Bevacizumab in Primary Pterygium Excision.](#)
*Purpose: To evaluate the efficacy of subconjunctival bevacizumab as an...*6th November, 2009
Department of Ophthalmology and Poostchi Ophthalmic Research Center,- Ophthalmic Res. 2009 Oct 29;43(3):134-138. ([DOI Direct Link](#))
 - [Penetrating keratoplasty in keratoconic eyes with prior radial keratotomy.](#)
*Purpose. The aim of this study is to evaluate the long-term therapeutic...*1st March, 1948
Kartal Training and Research Hospital, Istanbul - Turkey.- Eur J Ophthalmol. 2009 Nov 16.

BioNews Results for Astigmatism

- [Clinical Studies Show B&L's Lo-Torque Design Delivers Better Rotational Recovery](#)
Newswise: Nov 12 2009 5:21PM Matching: astigmatism
- [Clinical studies show B&L's Lo-Torque design delivers better rotational recovery](#)
Genetic Engineering News: Nov 12 2009 3:22PM Matching: astigmatism
- [Surgically Induced Astigmatism after Posterior Chamber Phakic Intraocular Lens Implantation](#)
British Journal of Ophthalmology: Oct 14 2009 11:33PM Matching: astigmatism
- [Correlation between the Pattern of Myopic Fundal Changes and the Axis of Astigmatism of the Eye](#)
British Journal of Ophthalmology: Oct 14 2009 11:31PM Matching: astigmatism
- [In terms of outcomes and risks, is laser-based or cornea-based refractive surgery or premium IOL implantation](#)
OSN Super Site: Oct 14 2009 11:51AM Matching: astigmatism
- [Comparison of Custom Ablation and Conventional Laser In Situ Keratomileusis for Myopia and Myopic Astigmatism Using the Alcon Excimer Laser](#)
MDLinx: Oct 13 2009 11:54AM Matching: astigmatism
- [In terms of outcomes and risks, is laser-based or cornea-based refractive surgery or premium IOL implantation](#)

- [Post-PK Vision That Patients Wont Reject](#)



Astigmatism Patents:

- 7608838- [Electron optical component](#)
- 7612336- [Scanning electron microscope having a monochromator](#)
- 7612570- [Surface-potential distribution measuring apparatus, image carrier, and image forming apparatus](#)
- 7612805- [Digital imaging system and methods for selective image filtration](#)
- 7612893- [Scanning interferometric methods and apparatus for measuring aspheric surfaces and wavefronts](#)
- 7612949- [Zoom lens and imaging apparatus](#)
- 7612956- [Optical mount pivotable about a single point](#)
- 7613082- [Optical pickup device, optical recording and reproducing apparatus and gap detection method](#)
- 7613096- [Converging optical element and optical pickup apparatus](#)
- 7613098- [Objective optical system for optical recording media and optical pickup device using it](#)
- 7613100- [Optical pickup device and focus control method therefor](#)
- 7612334- [Standard reference component for calibration, fabrication method for the same, and scanning electron microscope using the same](#)
- 7611244- [Adaptive optics for compensating for optical aberrations in an imaging process](#)
- 7609241- [Double-faced light emitting diode display](#)
- 7609313- [Image pick-up lens, image pick-up unit and mobile terminal](#)
- 7609441- [Distorted pupil relay for spectral filtering](#)
- 7609455- [Projection optical system and method for photolithography and exposure apparatus and method using same](#)
- 7609456- [Standard zoom lens system](#)
- 7609457- [Zoom lens and image pickup apparatus including the same](#)
- 7609463- [Compact infrared spectrometer, and methods and systems for manufacture and assembly of components used in same](#)
- 7609606- [Optical pickup device](#)
- 7609607- [Diffraction element and optical pick-up apparatus having the same](#)
- 7611063- [Automatically-activated code symbol reading system](#)
- 7613389- [Image taking apparatus and assembling method thereof](#)
- 7614287- [Scanning probe microscope displacement detecting mechanism and scanning probe microscope using same](#)
- 7619220- [Method of measuring aberrations and correcting aberrations using Ronchigram and electron microscope](#)
- 7619293- [Pin photodiode with improved blue light sensitivity](#)
- 7619722- [Lens replacing method and manufacturing method for alternative lens](#)
- 7619747- [Lithographic apparatus, analyzer plate, subassembly, method of measuring a parameter of a projection system and patterning device](#)
- 7619824- [Variable optical arrays and variable manufacturing methods](#)

- 7619827- [Projection optical system and method for photolithography and exposure apparatus and method using same](#)
- 7619833- [Lens system and projector utilizing the same](#)
- 7619836- [Imaging lens unit](#)
- 7619958- [Pickup apparatus for multi-layer optical disc](#)
- 7619959- [Optical head, optical recording medium recording and/or reproducing apparatus and recording and/or reproducing method using the optical head](#)
- 7619218- [Charged particle optical apparatus with aberration corrector](#)
- 7618643- [Growth factor delivery system for the healing of wounds and the prevention of inflammation and disease](#)
- 7614747- [Automated vision screening apparatus and method](#)
- 7614748- [Systems and methods for displaying three-dimensional images](#)
- 7615335- [Imaging methods](#)
- 7615746- [Method and apparatus for evaluating pattern shape of a semiconductor device](#)
- 7616378- [Dichroic beam splitter and related apparatus and methods](#)
- 7616385- [Zoom lens and image pickup apparatus including the same](#)
- 7616386- [Zoom lens and image-pickup apparatus](#)
- 7616550- [Optical pickup unit](#)
- 7616672- [Semiconductor light emitting device and manufacturing method therefor](#)
- 7618142- [Contact lenses](#)
- 7620932- [Simulation of aerial images](#)

Resources from the [NCBI](#) used in this document, [NCBI's standard disclaimer applies](#).

Nothing in this document should be used in place of personal medical advice from your own qualified medical practitioner. See BioPortfolio.com [User Agreement](#)

Send comments and feedback to:

Peter Barfoot Managing Director, BioPortfolio Ltd.

UK Tel: (+44) 1300 321501

USA Voicemail and Fax: (+1) 415 680 2472

[Peter Barfoot peter.barfoot@bioportfolio.com](mailto:peter.barfoot@bioportfolio.com)

All rights reserved. All other trademarks recognized.

BioPortfolio Limited is registered in England & Wales at Stafford House, 10 Prince of Wales Road, Dorchester, Dorset, DT1 1PW, UK. No.3312883 VAT No. GB 744 6483 10

Copyright 1997-2009 - BioPortfolio Limited.

