

Curriculum Vitae

Ellen E. Anderson Penno, MD, MS, FRCSC, Diplomate ABO

BIOGRAPHICAL DATA

Name Ellen E Anderson Penno

Address Western Laser Eye Associates
209, 8555 Scurfield Drive NW
Calgary, Alberta T3L 1Z6

Telephone/email 403.247.1477 contact@westernlasereye.com

Present rank Ophthalmologist **Citizenship** Canada/U.S.A.

ACADEMIC RECORD

Final degree M.D., M.S. Clinical Laboratory Science, 1992

Specialty Ophthalmology

Institution University of Minnesota, Minneapolis, MN

Undergraduate Carleton College, Northfield, MN
BA Honors Biology, French Studies, 1984

Graduate and post-doctoral

Gimbel Eye Centre, AB. Research Fellowship July - Sept 1997
Refractive Surgery Fellowship Sept 1997 - Aug 1998

Sedona-Verde Valley Eye Center, Sedona, AZ.
General Ophthalmologist 1996 – 1997

Mayo Clinic, Rochester, MN Ophthalmology Residency 1993 - 1996

Hennepin County Medical Center, Minneapolis, MN.
Rotating Internship 1992-1993

University of Minnesota, Minneapolis, MN.
Clinical Laboratory Science, Immunology MS 1992

Licensure, certification and boards

College of Physicians & Surgeons of Alberta 1998-present, #012039
College of Physicians & Surgeons of Saskatchewan 1998-2002, #8561
Royal College of Physicians and Surgeons of Canada Certified 1998
Fellow of the Royal College of Physicians and Surgeons 1998
Diplomat American Board of Ophthalmology 1998
College of Physicians and Surgeons, Edmonton AB Courtesy 1997-1998, #C10580
State of Arizona 1996-1997, #24266
State of Minnesota 1992-2008, #36216

PROFESSIONAL ACTIVITIES

Membership in professional and learned societies

- 1996 - 1997 Rotary International, Sedona Mid-Day Rotary
- 1996 - 1997 International Association of Women Pilots, Sedona 99's
- 1994 - present American Academy of Ophthalmology
- 1993 - 1998 American Medical Association
- 1998 - present Alberta Medical Association
- 1998 - present American Society of Cataract and Refractive Surgery
- 1998 - present Fellow of the Royal College of Physicians and Surgeons of Canada
- 1998 - present Diplomate of the American Board of Ophthalmology
- 2009 - present American Medical Writers Association

Community service / Volunteer activities

- 2011 *San Lucas Mission Eye Clinic* - volunteer ophthalmologist, San Lucas Toliman, Guatamala. Pending for November 2011.
- 2010-2011 *Calgary Round-up Band* - Vounteer, Calgary, AB
- 2008 *Habitat for Humanity/ American Academy of Ophthalmology* - Eye Build Volunteer, Atlanta, GA
- 2007 *Habitat for Humanity/ American Academy of Ophthalmology* - Eye Build Volunteer, New Orleans, LA
- 2006 *American Heart & Stroke Foundation* – Disney World Marathon, Florida
- 2003 - present *Bearspaw School, Calgary AB* – Parent Volunteer
- 2004 – present *Girl Guides Mistaya District, Calgary AB* – Parent Volunteer
- 1998 - 2000 *Canadian Mental Health Association* - Fund Raising, Committee volunteer. S. Barrette, Coordinator
- 1999 *Canadian Diabetes Association* "Spring tune-up" - speaker
- 1994 *American Liver Foundation* "Run for Your Livers", area representative, S. Aronson, collected per mile pledges for running the Boston marathon.
- 1989-1992 *Riverside Medical Center Hospice, Minneapolis, MN.* Grief Support Group facilitator and bereavement support. H. Everett, coordinator.
- 1988 - 1989 *People's Center Clinic, Minneapolis, MN.* Laboratory volunteer and patient advocate. T. Kidder, volunteer coordinator.
- 1988 - 1989 *University of Minnesota Variety Club Hospital, Minneapolis, MN.* Cancer support group volunteer. D. Stark, supervisor.

AWARDS AND DISTINCTIONS

- 1989 Academy of Clinical Laboratory Physicians and Scientists, Young Investigator Award with Distinction
- 1984 Carleton College
 - Honors in biology
 - Distinction on Senior Integrative Exercise
 - Superior Achievement in Foreign Language (French)
- 1983, 1984 National Collegiate Ski Association (NCSA) All American Cross Country Skier

EDUCATIONAL ACTIVITIES

Undergraduate

- 1997 - 1998 **Supervisor** Ophthalmology Clinical Clerkship Program (University of Calgary medical student collaboration)
- 1998 **Associate Instructor** American Academy of Ophthalmology

(AAO) Course #408 *Prevention and management of LASIK complications* November 1998

Postgraduate (research and clinical fellows)

1997 - 1998 **Supervisor** Refractive surgery fellows in research, clinic, and surgery
2007 **Assistant to Instructor** Nurse Practitioner in-office training

Continuing medical education

1997 - 1998 **Instructor** Personal Professional Development - numerous PPD sessions for Gimbel Eye Centre technicians
2007 **Speaker** ASOMA Continuing Education for ASOMA Members, Calgary AB
2011 **Participant** Harvard Medical School Department of Continuing Education
Publishing Books, Memoirs and Other Creative Nonfiction
1992-present **Attendee** Annual Meetings of American Academy of Ophthalmology and American Society of Cataract and Refractive Surgeons

ADMINISTRATIVE RESPONSIBILITIES

Departmental

1997 - 2000 **Director of Research** - Gimbel Eye Centre
2000 - 2004 **Research Advisor** - Gimbel Eye Centre
Associate Director of Research Publications - Gimbel Eye Centre
2008 – present **Medical Director Western Laser Eye Associates**

PUBLICATIONS/PRESENTATIONS

Freelance Assignments

1. Corneal Dystrophies in **Genetics and Inherited Disorders: Revised Edition** Salem Press, Pasedena CA, 2009.
2. Choroderemia in **Genetics and Inherited Disorders: Revised Edition** Salem Press, Pasedena CA, 2009.
3. Clinics in **Magill's Medical Guide, Sixth Edition** Salem Press, Pasedena CA, 2009.
4. Health Care Reform in **Magill's Medical Guide, Sixth Edition** Salem Press, Pasedena CA, 2009.
5. Vision in **Magill's Medical Guide, Sixth Edition** Salem Press, Pasedena CA, 2009.
6. Vertigo in **Magill's Medical Guide, Sixth Edition** Salem Press, Pasedena CA, 2009.
7. Herbology in **Salem Science: Applied Sciences** Salem Press, Pasedena CA, 2010.
8. Optics in **Salem Science: Applied Sciences** Salem Press, Pasedena CA, 2011.
9. Sports Engineering in **Salem Science: Applied Sciences** Salem Press, Pasedena CA, 2011.
10. Night Vision Technology in **Salem Science: Applied Sciences** Salem Press, Pasedena CA, 2011.

Books

Anderson Penno EE: Laser Vision Correction: What You Need to Know. CreateSpace, Charleston, SC; 2009

Gimbel HV, **Anderson Penno EE:** LASIK Complications: Techniques and Trends, 3rd ed. Thorofare, NJ. SLACK Incorporated; 2004.

Gimbel HV, **Anderson Penno EE:** LASIK Complications: Prevention and Management, 2nd ed. Thorofare, NJ. SLACK Incorporated; 2001

Gimbel HV, **Anderson Penno EE**: LASIK Complications: Prevention and Management, 2nd ed. Thorofare, NJ. SLACK Incorporated; 2001

Gimbel HV, **Anderson Penno EE**, et al: Refractive Surgery. A manual of principles and practice. Thorofare, NJ. SLACK Incorporated; 2000

Gimbel HV, **Anderson Penno EE**: *LASIK Complications: Prevention and management*. [Japanese translation] Thorofare, NJ. SLACK Incorporated; 1999

Gimbel HV, **Anderson Penno EE**: *LASIK Complications: Prevention and management*. Thorofare, NJ. SLACK Incorporated; 1999

Editorial Review

Papers

2002-present periodical peer review of articles submitted to the Journal of the Society of Cataract and Refractive Surgery.

Manuscripts

Ongoing editorial assistance with SLACK Incorporated for manuscripts in development.

Peer reviewed manuscripts

11. Gimbel HV, Peters NT, Iskander NG, **Anderson Penno E**. Accuracy of Orbscan pachymetry measurements and DHG ultrasound pachymetry in primary laser in situ keratomileusis and LASIK enhancement procedures. *J Cataract Refract Surg* 2001;27:681-685
12. Peters NT, Iskander NG, **Anderson Penno E**, Woods DE, Moore, RA, Gimbel HV. Diffuse lamellar keratitis: Isolation of endotoxin and demonstration of the inflammatory potential in a rabbit laser in situ keratomileusis model. *J Cataract Refract Surg* 2001;27:917-923
13. Gimbel HV, Sun R, Ferensowicz M, **Anderson Penno E**, Kamal A. Intraoperative management of posterior capsule tears in phacoemulsification and intraocular lens implantation. *Ophthalmology* 2001;108:2186-2192
14. Sun R, Gimbel H, **Anderson Penno E**: Intraocular lens power calculation after corneal refractive surgery remains challenging, [Letter]. *Ophthalmology* 2000;107(2):226-227
15. Iskander NG, Peters NT, **Anderson Penno EE**, Gimbel HV. Late traumatic flap dislocation following LASIK. *J Cataract Refract Surg* 2001;27(7):1111-1114
16. Cuzzani OE, **Anderson Penno EE**, van Westenbrugge JA, Iizuka MN, Gimbel HV: Intraocular pressure changes during ring application in LASIK procedures. *J Cataract Refract Surg* 2000 (submitted)
17. Gimbel HV, van Westenbrugge JA, **Anderson Penno EE**, Ferensowicz M. Simultaneous versus bilateral sequential LASIK. [Letter] *Ophthalmology* 2000;107(5):818-819
18. Iskander NG, Peters NT, **Anderson Penno E**, Gimbel HV. Postoperative complications in laser in situ keratomileusis. *Cur Opin in Ophthalmol* 2000;11:273-280
19. Gimbel HV, Peters NT, Iskander NG, **Anderson Penno E**. Laser in situ keratomileusis flap complications and management. *J Refract Surg* 2000;16(2):s223-225
20. Gimbel HV, Iskander NG, Peters NT, **Anderson Penno E**. Prevention and management of microkeratome-related laser in situ keratomileusis complications. *J Refract Surg* 2000;16(2):s226-229
21. Gimbel HV, Sun R, Furlong MT, **Anderson Penno E**: Accuracy and predictability of intraocular lens power calculation after photorefractive keratectomy. *J Cataract Refract Surg* 2000;26:1147-1151
22. Gimbel HV, van Westenbrugge JA, **Anderson Penno EE**, Ferensowicz M, Feinerman GA, Chen R: Simultaneous bilateral laser in situ keratomileusis. *Ophthalmology* 1999;106(8):1461-1468
23. Purba M, **Anderson Penno EE**, Gimbel HV: LASIK postoperative complications and management. *Practical Optometry* 1999;10(2):54-61

24. Gimbel HV, **Anderson Penno EE**, Ferensowicz M: Technique for combined cataract, IOL, and viscoanalostomy. *J Cataract Refract Surg* 1999;25(10):1370-1375
25. Gimbel HV, **Anderson Penno EE**, Furlong MT, van Westenbrugge JA, Ferensowicz MI: Incidence and management of intra and early postoperative complications in 1000 consecutive LASIK cases. *Ophthalmology*; 1998;105(10):1839-1848
26. Tymoczko JL, **Anderson EE**, Lee KA, Unger AL: The ability to convert the 4S glucocorticoid receptor to the 7-8S form is dependent on both RNA and protein factors. *Acta Biochem Biophys*,1987;930:114-121
27. Tymoczko JL, **Anderson EE**, Unger AL: Studies with chymotrypsin and Rnase showing a heterooligomer structure of the glucocorticoid receptor complex from rat liver which is stabilized by a low molecular weight factor. *Acta Biochem Biophys*,1986;888:296-305

Non-peer reviewed manuscripts

1. Cuzzani o, Bromwich M, **Penno E**, Gimbel H. The effect of transmission bandwidth on the quality of ophthalmological still and video images. *J Telemedicine and Telecare*2000; vol 6, Supple 2:S2:11-S213
2. Gimbel HV, J A van Westenbrugge, **E.E. Anderson Penno**. Letter. Simultaneous vs bilateral LASIK. *Ophthalmology* 2001;108(3):429-430
3. Gimbel HV, Peters NT, Iskander NG, **EE Anderson Penno**. Laser in situ keratomileusis flap complications and management. *Ocular Surgery News (Suppl)* 2001;Jan
4. Gimbel HV, Keamy JE, **EE Anderson Penno**. Attacking post-LASIK striae. *Ophthalmology Management* Oct 2000
5. **Anderson Penno EE**, Gimbel HV: LASIK: The Calgary experience. *Operative Techniques in Cataract and Refractive Surgery* 2000 (submitted)
6. Gimble HV, **Anderson Penno EE**: Cataract: Pathogenesis and treatment. *Highlights of Ophthalmology* 2000; (submitted)
7. Iskander NG, Peters NT, **Anderson Penno EE**, Gimbel HV: Postoperative complications in LASIK. *Current Opinion in Ophthalmology*; 2000 (submitted)
8. Lorenson R, Gimbel HV, **Anderson EE**: Nutritional factors and ocular disease. *Canadian Journal of Clinical Medicine*, 1999;6(1):4-9
9. **Anderson Penno EE**: Cataract Surgery: The state of the art. [Book Review] *Ophthalmic Practice* 1999;17(1):44
10. Gimbel HV, **Anderson Penno EE**: Current techniques of refractive surgery. *Canadian Journal of Clinical Medicine*,1998;5(8):164-177
11. Gimbel HV, **Anderson Penno EE**: Cataracts; Pathogenesis and treatment. *Canadian Journal of Clinical Medicine*, 1998;5(11):232-241

Chapters

Gimbel HV, **Anderson Penno EE**: Capsulorrhesis Complications. In: Fishkind WJ, Ed. Complications in Phacoemulsification. Avoidance, recognition, and management. New York, NY. Thieme;2002; chap 5 pp36-48.

Gimbel HV, van Westenbrugge JA, **Anderson Penno EE**: Simultaneous bilateral laser in situ keratomileusis: safety and efficacy. *Year book of Ophthalmology*, Mosby 2000.

Gimbel HV, **Anderson Penno EE**. LASIK: The Technique. In: Agarwal S, Pallikaris IG, Knorz MC, Agarwal A, Neuhann T, Agarwal A, eds. *Refractive Surgery*. New Delhi, India. Jaypee Brothers Medical Publishers Ltd; 2000; chap. 25 pp 254-266

Gimbel HV, **Anderson Penno EE**: Capsulorrhesis complications. In Fishkind WJ, ed. *Complications in Phacoemulsification*. New York, NY. Thieme;1999

Gimbel HV, **Anderson Penno EE**, van Westenbrugge JA: Re-Treatments of excimer laser refractive surgery. In Wu HK, ed. *Refractive Surgery*. New York, NY. Thieme; 1999 Ch19 p295-305

Anderson Penno EE, van Westenbrugge JA, Gimbel HV: Photorefractive keratectomy enhancement techniques. In: Brightbill FS, ed. *Corneal Surgery: Theory, Technique and Tissue*. 3rd ed. Philadelphia, PA. Mosby; 1999; chap. 87, pp725-732

Gimbel HV, Furlong MT, **Anderson Penno EE**: Management of under and overcorrected myopia after radial keratotomy. In Brightbill FR, ed. *Corneal Surgery: Theory, Technique and Tissue*. 3rd ed. Philadelphia, PA. Mosby; 1999; chap. 77, pp645--649)

Gimbel HV, **Anderson Penno EE**, van Westenbrugge JA: Re-treatments of excimer laser refractive surgery. In Wu H, Thompson V, Steinert R, Slade S, Hersh P, eds. *Refractive Surgery*. New York, NY. Thieme; 1998; chap 19

Gimbel HV, **Anderson Penno EE**. Divide and conquer nucleofractis phacoemulsification techniques. In Agarwal A, ed. India; 1998 [Chapter 77] 1999

Abstracts

Peters NT, Iskander NG, **Anderson Penno EE**, Woods DE, Moore RA, Gimbel HV. Diffuse lamellar keratitis: isolation of endotoxin and demonstration of the inflammatory potential in a rabbit laser in situ keratomileusis model. *Am J Ophthalmol* 2001;132(4):607-608. [Edited by Thomas J. Liesegang from J Cat Refract Surg 2001;27:917-923]

Cuzzani O, Gimbel HV, **Anderson Penno EE**, van Westenbrugge JA, Attariwala R. *Variability of intraocular pressure after ring application in LASIK procedures research*. American Academy of Ophthalmology (AAO), New Orleans November 1998 Poster

Anderson Penno EE, Gimbel HV: PRK and LASIK for hyperopia after RK. [Abstract] In *American Society of Cataract and Refractive Surgery. Symposium on Cataract, IOL and Refractive surgery*, 1998

Rettig EV, **Anderson EE**, Grill R, Hodge DO, Ilstrup DM, Robertson DM, Gray DT: A retrospective population-based study of the incidence of central retinal vein occlusion. [Paper]. *Association for Research in Vision and Ophthalmology*. Presented at Annual Meeting, 1996

Anderson E, Kleppel M, Fan W, Michael A: Isolation of a novel human basement membrane component. [Abstract] *Academy of Clinical Laboratory Physicians and Scientists*. Presented at Annual Meeting, 1989

Anderson E, Golub T, Tymoczko J: Glucocorticoid receptor-RNA Association: stabilization by a small, heat-stable factor. [Abstract]. Poster presented at FASEB Meeting, Anaheim, CA. 1985

Videotapes/CD

Gimbel HV, **Anderson Penno EE**. Interface debris under LASIK flaps: Prevention and management. ASCRS 2001

Gimbel HV, **Anderson Penno EE**: LASIK CD 2001 SLACK produced

Anderson Penno EE, Gimbel HV: Laser in-situ keratomieusis after radial keratotomy. 1999 *ASCRS Film Festival* winner.

Presentations

Ellen E. Anderson Penno, Dennis A. Braun, OD. Topical Thiotepea treatment of recurrent haze after PRK. 2001 ASCRS paper.

Ellen E. Anderson Penno, Keamy JE, Stoll SB, Olson ME, Gimbel HV. Diffuse lamellar keratitis: Treatment outcomes with topical steroids and topical nonsteroidals.

Presentation Coauthor

Iskander NG, **Anderson Penno EE**, Peters NT, Gimbel HV. Discrepancies between corneal ultrasound pachymetry and Orbscan optical pachymetry measurements in primary LASIK and LASIK enhancement procedures. 2000 ASCRS paper.

Peters NT, Iskander NG, Woods DE, Gimbel HV, **Anderson Penno EE**, Ferensowicz M. Lamellar keratitis. Isolation of endotoxin sources, and demonstration of their inflammatory potential in a rabbit model. 2000 ASCRS paper.

Gimbel HV, **Anderson Penno EE**: Prevention and Management of LASIK complications. 1999 AAO Course 756.

Gimbel HV, Sun R, **Anderson Penno EE**: Postoperative corneal thinning masquerading as undercorrection or regression in LASIK Surgery. 1999 AAO paper.

Book Review

Refractive cataract surgery and multifocal IOLs, by R. Bruce Wallace, III 240 pgs, illus. SLACK Inc., 2000. ISBN:1-55642-460-4 . *Ophthalmic Practice* 2001;19:8:340

RESEARCH SUPPORT

Grants, contracts

2001	Gimbel Eye Foundation – Co-Investigator Diffuse lamellar keratitis: Treatment outcomes with topical steroids, topical non-steroidals, and systemic steroids in a rabbit model	15,000
1999	<u>Gimbel Eye Foundation</u> - Co-investigator Diffuse lamellar keratitis: Isolation of endotoxin sources and demonstration of their inflammatory potential in a rabbit model	\$4600
1999	<u>Gimbel Eye Foundation</u> - Co-investigator Visual performance under scotopic conditions following LASIK and PRK	\$12,430
1998	<u>Gimbel Eye Foundation</u> - Co-investigator <i>Quality of vision after clear lens extraction (Refractive Lensectomy)</i>	\$1,130
1998	<u>Gimbel Eye Foundation</u> - Co-investigator <i>Preliminary results of a neural network engine for refractive surgery outcome research</i>	\$1,000
1998	<u>Gimbel Eye Foundation</u> - Co-investigator <i>Variability of intraocular pressure and pulsatile ocular blood flow after the ring application in LASIK procedures</i>	\$19,830
1998	<u>Gimbel Eye Foundation</u> - Co-investigator <i>Applanation vs Langham tonometry in pre and postoperative PRK and LASIK patients</i>	\$19,830
1991	<u>Minnesota Medical Foundation</u> - Student Grant <i>Kinetics of suppression of corneal graft rejection by Deoxyspergualin in the Allogeneic rat model</i>	\$1,800
1990	<u>National Kidney Foundation of the Upper Midwest</u> <i>Diabetic changes of renal tubular basement membrane laminin</i>	\$2,000
1989	<u>National Kidney Foundation of the Upper Midwest</u> <i>Sequencing a cDNA clone of Heparan sulfate proteoglycan</i>	\$2,500

Research co-investigator, experience

- 1999 Gimbel Eye Centre. Isolation of endotoxin and demonstration of their inflammatory potential and treatment options in a rabbit LASIK model. D.E. Woods, PhD, R.A. Moore PhD.
- 1998 Gimbel Eye Centre. *Pre and postoperative IOP measurements in PRK and LASIK patients*. H.V. Gimbel, MD.
- 1998 Gimbel Eye Centre. *LASIK and PRK for hyperopia after RK*. H.V. Gimbel, MD.
- 1998 Gimbel Eye Centre. *Applanation vs Langham tonometry in pre and postoperative PRK and LASIK patients*. H.V. Gimbel, MD.
- 1996 Mayo Clinic. *Retrospective population-based study of the incidence of central retinal vein occlusion*. E.V. Rettig, MD, D.M. Robertson, MD (consultant).
- 1995 Mayo Clinic. *Tubulointerstitial nephritis antigen: localization of a novel corneal component by immunofluorescent and confocal microscopy*. J. Campbell, MD.
- 1991 University of Minnesota. *Rat penetrating keratoplasty: suppression of corneal transplant rejection by Deoxyspergualin*. E.J. Holland, MD.
- 1988-90 University of Minnesota. *Characterization of a novel basement membrane component and diabetic changes of renal basement membrane laminin*. M. Kleppel, PhD, A. Charonis MD, PhD, A. Michael (advisors).
- 1983-85 Carleton College. Honors Research. *Biochemistry of the glucocorticoid receptor*. J. Tymoczko, PhD (advisor).
- 1984 Immuno Nuclear Company, Stillwater, MN. *HPLC purification of synthetic peptides*. A. Lindall MD, PhD (supervisor)
- 1983 Washington University. *Enzyme kinetics of factor Xa*. C. Jackson MD (supervisor)