



Richmond Ear, Nose & Throat  
8700 Stony Point Parkway, Suite 110  
Richmond, VA 23235

804-330-5501  
www.RichmondENT.com

## Michael Armstrong, Jr., M.D.

### Work History

**Advanced Otolaryngology, P.C.**  
**Doing business as "Richmond ENT"**  
Richmond, VA, January 2001 to present  
Surgeon and President

**Richmond Hearing Aids, Inc.**  
Richmond, VA, June 2009 to present  
Medical Director and President

**Virginia Ear, Nose, & Throat Associates, P.C.**  
Richmond, VA, July 1995 to December 2000

### Education

Internship, Residency, Fellowship: Johns Hopkins Hospital  
Baltimore, MD  
1989 -1995: Otolaryngology-Head and Neck Surgery  
Awarded state and national resident research awards

Medical School: Duke University  
Durham, NC  
1985 -1989: Doctor of Medicine  
Benenson Merit Scholarship  
Duke Eye Center Research Scholarship

Undergraduate: Princeton University  
Princeton, NJ  
1981 -1985: BA Biology  
National Merit Scholarship  
Highest Academic Average in Biology  
Summa cum Laude

High School: The Collegiate Schools  
Richmond, VA  
1977-1981  
Highest Academic Average

## Current Hospital Affiliations

- Active Staff:
  - Medarva Healthcare Surgery Center
  - HCA Henrico Doctor's Hospital
- Courtesy Staff
  - Bon Secours Memorial Regional Medical Center
  - Bon Secours St. Francis Medical Center
  - Bon Secours St. Mary's Hospital
  - HCA Chippenham Medical Center
  - HCA Johnston-Willis Hospital

## Licensure and Certification

- American Board of Otolaryngology: 06/1995, lifetime certificate
- American Board of Facial Plastic and Reconstructive Surgery: 6/23/2001, recertified 2011
- American Academy of Otolaryngic Allergy Fellowship Examination: 9/14/2007
- Commonwealth of Virginia Hearing Aid Specialist 4/14/08 to present
- Commonwealth of Virginia medical license: 1995 to present
- State of Maryland medical license: 1990 to 1996
- National Board of Medical Examiners: 1990

## Honors and Awards

- "Patient Choice Award" from Medarva Healthcare 2019, 2020
- "Best Bedside Manner," [OurHealth Richmond](#), 2015-2019
- "Top Doctor," [Virginia Living](#) magazine 2018
- "Patients' Choice Award" [Vitals.com](#) 2011, 2012, 2014, 2016
- "Compassionate Doctor Award" [Vitals.com](#) 2011, 2015, 2016
- "On-Time Doctor Award" [Vitals.com](#) 2014, 2015, 2016
- "Top Doctors for Kids" [Richmond Magazine](#) 2002
- "Top Doctors" [Richmond Magazine](#) 2000, 2004
- Chesterfield Family Practice Outstanding Educator in Otolaryngology 1999-2002
- AAO-HNS Resident Clinical Research Award 1993
- Maryland Society for OHNS Resident Research Award 1993
- Alpha Omega Alpha 1989
- Duke Eye Center Research Scholarship 1987
- Edward H. Benenson Merit Scholarship 1985
- Highest Academic Average in Biology Department 1985
- Phi Beta Kappa 1985
- Sigma Xi Book Award 1985
- National Merit Scholarship 1981

## Civic Engagement

- Virginia Commonwealth University - Medical College of Virginia
  - Assistant Clinical Professor in Otolaryngology 2003-present
  - Assistant Clinical Professor in Nursing 2014-present
- Medarva Stony Point Surgery Center
  - Chief of Staff 2008-2009
  - Vice Chief of Staff 2006-2007
  - Executive Committee 2005-2011
  - Patient Care Committee - Chairman 2004-2009
  - Operating Room Committee 2002-2009
  - Infection Control Committee 2002-2003
  - Credentials Committee 2013-2014
- Medarva Foundation
  - Board of Directors 2014-present
  - Research Committee 2001-present
- American Academy of Facial Plastic and Reconstructive Surgery 1992-Present
  - Public Information Committee 2007-2012
  - Patient Safety Committee 2007-2012
- American Academy of Otolaryngology-HNS 1991-Present
  - Ethics Committee 2020-2022
  - Young Physicians Committee 1995-2005
- American Academy of Otolaryngic Allergy 1994-Present
- American Medical Association 1985-Present
  - Alternate Delegate for State of Maryland 1993-1995
- American Rhinologic Society 1998-Present
  - Young Physician Mentor 2013-2018
- American Board of Facial Plastic and Reconstructive Surgery
  - Written Examination Development Committee 2001
  - Oral Examiner 2014-2015
- Elite Hearing Network, ENT Advisory Board 2020-present
- Int'l Forum of Allergy and Rhinology Editorial Review Board 2015-present
- Third Church - a Covenant Order of Evangelical Presbyterians
  - Governing Elder 2017-2019
  - Missions Committee 2016-present
  - Personnel Committee 2017-present
  - 5<sup>th</sup> and 6<sup>th</sup> grade Sunday school teacher 2007-2017
- Virginia Society of Otolaryngology 1997-Present
- Medical Society of Virginia 1995-Present
- Richmond Academy of Medicine 1995-Present
- Christian Medical and Dental Society 2006-Present
- Surgeons' Outcomes Research Cooperative in Otorhinolaryngology
  - Board of Directors 1997-2003
  - President 1998-1999
  - Treasurer 1997-1998
- Tuckahoe Family YMCA Board of Management 1999-2002
  - Annual Giving - Division Manager 2001
  - Indian Program Nation Chief 2000-2002 2004-2005
- Director of Clinical Research - Virginia ENT Assoc. 1999-2000
- Chippenham Residency Education Committee 1998-2000
- Program Director - Johnston Willis Hospital
  - Head and Neck Tumor Board 1996-1997
- Credentials Committee - Stuart Circle Hospital 1997
- Credentials Committee - PruCare 1997-1999
- Otolaryngology- HNS Editorial Review Board 1994-1996

- Sigma Xi Scientific Research Society 1985-1999
- Medical and Chirurgical Faculty of Maryland 1989-1995 (State Medical Society)
  - President: Resident Physicians 1992-1994
  - Vice President: Resident Physicians 1991-1992
  - Member of Council 1992-1994
  - House of Delegates 1992-1995
- North Carolina Medical Society 1985-1989
- Durham-Orange County Medical Society 1985-1989
- Christian Medical Society 1985-1989
- Duke University Medical School Student Government 1985-1988
- Princeton University Honor Council 1983-1985
- The Collegiate Schools Honor Council 1977-1981

## **Missionary and Charitable Work**

- Haiti Outreach Ministries, Cite Soleil, Port au Prince, Haiti (general medicine) July 11-19, 2015
- Hospital Escuela, Tegucigalpa, Honduras (teaching plastic surgery residents) Nov 3-9, 2013
- World Medical Missions, Kijabe, Kenya (cleft lip and palate team) June 13-28, 2009, July 2-17, 2011
- Mission of Hope, Santa Cruz, Bolivia (microtia and general ENT) March 23-31, 2007
- Church Hill Activities and Tutoring (inner city youth) 2007-2010
- Access Now (accepting pro bono referrals) 2007-present
- Crossover Ministries (accepting pro bono referrals) 2001-present
- Face-to-Face Domestic Violence (accepting pro bono referrals) 2001-present

## **Surgical Innovations Introduced to Richmond, VA**

- 1995 ChiselTip suction cautery device for tonsillectomy
- 1996 Medialization thyroplasty
- 1996 Endoscopic orbital decompression for Graves disease
- 1997 Image-guided sinus surgery
- 1997 Frontal sinus drill-out
- 1998 Powered office sinus surgery
- 1998 Endoscopic ligation of the sphenoidal artery
- 1999 Endoscopic laser tear duct surgery
- 2000 "Scarless" parotid surgery
- 2001 Cautery assisted palatal stiffening operation
- 2001 Trained ENT nurse practitioner
- 2003 Coblation tonsillectomy
- 2003 Transnasal esophagoscopy
- 2004 Injection snoreplasty
- 2006 Repose genioglossus advancement and hyoid myotomy
- 2007 AcclarENT Balloon Sinuplasty
- 2008 In-office balloon sinuplasty
- 2009 Entellus FinESS balloon sinus dilation
- 2010 Entellus XprESS balloon sinus dilation
- 2012 In-office cone beam sinus CT
- 2014 Propel drug-eluting sinus stent
- 2015 Radiesse hand rejuvenation
- 2015 Phoenix CO2 laser Swiftscan for hand rejuvenation
- 2017 Latera lateral nasal wall implant
- 2017 Medicated thermosensitive sinus gel
- 2019 Vivaer nasal valve remodeling
- 2019 Clarifix ablation of posterior nasal nerve
- 2020 RhinAir ablation of posterior nasal nerve

## Peer-reviewed Manuscripts

- Armstrong M, Strack GB. Recognition and documentation of strangulation crimes: a review. JAMA Otolaryngol Head Neck Surg 142(9):1-8. Published online June 16, 2016.
- Armstrong M, Christian D. What's new in sinus surgery? Balloon Sinuplasty. OR Nurse 8(3):36-46, 2014.
- Bikhazi N, Light J, Truitt T, et al. Standalone balloon dilation versus sinus surgery for chronic rhinosinusitis: A prospective, multicenter, randomized, controlled trial with 1-year follow-up. Am J Rhinol Allergy 28:1-8, 2014. (Role: site Principal Investigator and surgeon)
- Cutler J, Bikhazi N, Light J, et al. Standalone balloon dilation versus sinus surgery for chronic rhinosinusitis: A prospective, multicenter, randomized, controlled trial. Am J Rhinol Allergy 27:416-422, 2013. (Role: site Principal Investigator and surgeon)
- Brodner D, Nachlas N, Mock P, Truitt T, Armstrong M, Pasha R, Jung C, and Atkins J: Safety and outcomes following hybrid balloon and balloon-only procedures using a multifunction, multisinus balloon dilation tool. Int Forum of Allergy & Rhinology 3:652-658, 2013.
- Levine SB, Truitt T, Schwartz M, Atkins J: In-Office Stand-Alone Balloon Dilation of Maxillary Sinus Ostia and Ethmoid infundibula in Adults with Chronic or Recurrent Acute Rhinosinusitis: A Prospective, Multi-institutional Study with 1-Year Follow-Up. Ann Otol Rhinol Laryngol 122(11):665-671, 2013. (Role: site Principal Investigator and surgeon)
- Albritton FD et al. Surgeon radiation exposure in ESS with balloon catheters. Otolaryngol Head Neck Surg 140:834-840, 2009.
- Armstrong, M. Office-based Procedures in Rhinosinusitis. Otolaryngol Clin N Am 38:1327-1338, 2005.
- ATBS Clinical Consensus Panel: Acute Bacterial Rhinosinusitis: Patient Assessment, Risk Stratification, Referral Strategies, and Outcome-Effective Antibiotic Selection. Hospital Medicine Consensus Reports May 1, 2004.
- Hayden FG, Herrington DT, Coats TL et al.: Efficacy and Safety of Oral Pleconaril for Treatment of Colds Due to Picornaviruses in Adults: Results of 2 Double-Blind, Randomized, Placebo-Controlled Trials. Clin Infect Dis 36:1523-32, 2003.
- Dolor RJ, Witsell DL, Hellkamp AS et al.: Comparison of Cefuroxime With or Without Intranasal Fluticasone for the Treatment of Rhinosinusitis. JAMA 286:3097-3105, 2001.
- Armstrong M: Chisel Tip Suction Cautery Device for Tonsillectomy. Otolaryngol Head Neck Surgery 121:119-121, 1999.
- Armstrong M, Mark LJ, Snyder DS, Parker SD: Safety of Direct Laryngoscopy as an Outpatient Procedure. Laryngoscope 107:1060-1065;1997
- Armstrong M, Shikani AH: Nasal Septal Necrosis Mimicking Wegener's granulomatosis in a cocaine abuser. ENT Journal 75(9): 623-626, 1996.
- Armstrong M, Efros PL: Speaking tubes for bedside use. Otolaryngol Head Neck Surg 112:624-5, 1995.
- Armstrong M. Stabilizing Foot Means for Cap of Needle Assembly and Method Thereof. U.S. Patent No. 08/041,489, 1994.
- Armstrong M, Kunar DR, Cummings CW: Effect of pentoxifylline on myocutaneous flaps in pigs. Otolaryngol Head Neck Surg, 109:668-675, 1993.
- Armstrong M, Efros PL: Speaking tubes for office use. Otolaryngol Head Neck Surg, 108:771-2, 1993.
- Armstrong M, McArthur JC, Zinreich SJ: Radiographic imaging of sinusitis in HIV infection. Otolaryngol Head Neck Surg, 108:36-43, 1993.
- Godofsky EW, Zinreich SJ, Armstrong M, Leslie J, Weikel CS: Sinusitis in HIV-infected patients: A clinical and radiographic review. Am. J. Med. 93:163-170, 1992.
- Armstrong M, Price JC: Tumor implantation in a tracheotomy. Otolaryngol Head Neck Surg, 106:400-403, 1992.
- Needham D, Armstrong M, Hatchell DL, Nunn RS: Rapid deformation of "passive" polymorphonuclear leukocytes: the effects of pentoxifylline. J. Cell. Physiol. 140(3) 549-557, 1990.
- Armstrong M, Needham D, Hatchell DL, Nunn RS: Effect of pentoxifylline on the flow of polymorphonuclear

leukocytes through a model capillary. *Angiology* 41(4): 253-262,1990.

- Lisk RD, Huck UW, Gore AC, Armstrong M: Mate choice, mate guarding and other mating tactics in golden hamsters maintained under seminatural conditions. *Behaviour* 109: 58-75, 1989.
- Armstrong M: Mechanisms of female mate choice among golden hamsters in a semi-natural environment. Senior thesis submitted to Princeton University, April 1985.

## Abstracts, short papers and selected presentations

- DelGaudio J, Armstrong M, Payne S, Citardi M, Setzen M. Panel Discussion: "Would you do this in your office?" at the American Rhinologic Society Summer Sinus Symposium, Washington, DC July 14, 2017.
- Armstrong M, Major MS, Kennedy D, Setzen M, Singh A. Panel discussion: an update on topical local anesthetics. Panel moderator at the American Academy of Otolaryngology – Head and Neck Surgery Foundation Annual Meeting, Product Theater. San Diego, CA, Sept. 20, 2016.
- Armstrong M, Major MS, Christman LA, Topical nasal anesthesia using cocaine hydrochloride 4%, 10% or placebo: safety results from a phase 3 randomized clinical trial. Poster presented at the American Rhinologic Society 62<sup>nd</sup> Annual Meeting, San Diego, CA, Sept. 16-17, 2016.
- Armstrong M, Strack GB. Recognition and documentation of strangulation crimes. Pre-recorded and presented at the Virginia Society of Otolaryngology Annual Meeting, Tysons Corner, VA June 4, 2016.
- Armstrong, M. Breakthrough treatment relieves sinus problems. *Boomer* 30-31 June 2014.
- Armstrong, M. Balloon Dilation of the Sinuses in the Office. Poster presentation at Virginia Society of Otolaryngology Annual Meeting. Norfolk, VA 5/3/11.
- Armstrong, M. Do's and Don'ts: Print Advertising, Use of Academy Logo. *Facial Plastic Times*. 29(5):10-11, 2008.
- Armstrong, M. The No. 1 Boomer Cancer. Skin cancer: recognize it, prevent it. *Boomer Life* 77-78 June 2008.
- "Pathologic Vignettes: The Role of Balloon Catheter Dilation in Fungus, Headaches and Polyps." Invited panelist at The Sinus Forum 2008, Chicago, IL, 7/25/8.
- "Balloon Sinuplasty Cadaver Training Course," Portsmouth Naval Hospital 9/26/7 and Baltimore, MD 10/19/7 and 5/9/8.
- "Diagnosis and Evidence-Based Management of Outpatients with Acute Bacterial Rhinosinusitis" American Academy of Family Physicians Annual Meeting, Washington, DC 9/29/6, Dallas, TX 9/30/6, Miami, FL 10/28/6.
- "Acute Bacterial Rhinosinusitis: Patient Assessment, Risk Stratification, Referral Strategies, and Outcome-Effective Antibiotic Selection:" Clinical Consensus Panelist: Miami, FL 12/12-13/03.
- Presented at the Allergy, Asthma, and Sinus Disease Update: Washington, DC 4/18/04, San Francisco, CA 9/18/04, San Diego, CA 9/19/04.
- "New Technologies for Tonsillectomy" Invited faculty speaker at the Virginia Society of Otolaryngology Annual Meeting. Williamsburg, VA 4/17/04. Reprinted at the SPSC Pediatric Symposium 6/9/8.
- "Endoscopic Dacryocystorhinostomy" Presented at the 15<sup>th</sup> Annual Endoscopic Sinus Lectures and Laboratory. Medical College of Virginia, Richmond, VA 4/27/03
- "Current antimicrobial therapy for upper respiratory tract infections." Presented at the Virginia Academy of Family Physicians Annual Meeting. Virginia Beach Convention Center, Virginia Beach, VA 6/22/01.
- "21<sup>st</sup> Century Treatments for Sinusitis." Presented at the Virginia Academy of Family Physicians Annual Meeting. Virginia Beach Convention Center, Virginia Beach, VA 6/21/00.
- Armstrong, M: Sphenopalatine Artery Ligation for Epistaxis. Presented at the 12th Annual Endoscopic Sinus Lectures and Laboratory, Medical College of Virginia, Richmond, VA. May 6, 2000.
- Armstrong, M: Office Endoscopic Sinus Surgery. Presented at the American Rhinologic Society, Palm Desert, CA, April 26, 1999.

- Armstrong, M: Local Anesthesia for Endoscopic Sinus Surgery. Presented at the 11th Annual Endoscopic Sinus Lectures and Laboratory, Medical College of Virginia, Richmond, VA, May 15, 1999.
- Armstrong M: Chisel Tip Suction Cautery Device for Tonsillectomy, presented at the American Academy of Otolaryngology-Head and Neck Surgery, San Antonio, TX, September 14, 1998, and at the Virginia Society of Otolaryngology, Roanoke, VA,, April 25, 1998.
- Armstrong M: Image Guided Endoscopic Surgery. Presented at the 10th Annual Endoscopic Sinus Lectures and Laboratory, Medical College of Virginia, Richmond, Virginia, May 30, 1998.
- Armstrong M: An Update on Endoscopic Sinus Surgery. Presented at Stuart Circle Hospital Medical Staff Conference on September 27, 1997 and at Chippenham Medical Center/Johnston Willis Hospital Annual Meeting on October 10, 1997.
- Armstrong M: ChiselTip Suction Cautery Tonsillectomy, presented at the Virginia Society of Otolaryngology, Roanoke, Virginia, April 25, 1997.
- Armstrong M, Mark LJ, Snyder DS, Parker SD: Safety of Direct Laryngoscopy as an Outpatient Procedure, presented at the Southern Section of the Triological Society, Naples, FL, January 5-6, 1996.
- Armstrong M: Atlas of Head and Neck Pathology, by Bruce Wenig (book review). Otolaryngol Head Neck Surg 112(6):786.
- Armstrong, M: Negligent sanitation practices in Baltimore barber shops (letter). Maryland Med J 43(2):25-6, 1994.
- Armstrong M, Kunar DR, Cummings CW: Effect of pentoxifylline on myocutaneous flaps in pigs. Otolaryngology Head Neck Surg, 109:235, 1993. Presented at the AAOHNS, Minneapolis, MN, October 4, 1993.
- Godofsky E, Zinreich SJ, Armstrong M, Leslie J, Weikel CS: Sinusitis in HIV positive patients. Presented at the 31st International Congress of Antimicrobial Agents and Chemotherapy: Chicago, September 1991.
- Armstrong M, Needham D, Hatchell DL: Pentoxifylline induces structural defects in neutrophil cytoskeleton: a video demonstration. J Cell Biol 107: 59a, 1988.
- Armstrong M, Nunn RS, Needham D, Hatchell DL: Pentoxifylline increases deformability of neutrophils in a model capillary. J Cell Biol 107: 59a, 1988.
- Armstrong M, Gore AC: Mechanisms of female mate choice among golden hamsters in a semi-natural environment. Department of Biology Research Symposium, Princeton University, Princeton, NJ, May 1985.

## Clinical Research Experience as Site Principle Investigator

1. SaNOtize (Phase 2 RCT, nitric oxide releasing solution vs saline for COVID-19); 2020
2. AstraZeneca D3252C00004 OXALIS (Phase 3 RCT, benralizumab for recurrent nasal polyps): 2020
3. Frequency Therapeutics FX-322-202 (Phase 2a RCT, FX-322 for sensory hearing loss): 2020
4. Frequency Therapeutics FX-322-111 (Phase 2a RCT, FX-322 for sensory hearing loss): 2020
5. Gossamer Bio TITAN GB001-2101 (Phase 2a RCT, a PG2 inhibitor for nasal polyps): 2019
6. Impel Neuropharma INP104-301 (Phase 2 drug-device combination study for migraine): 2018-2019
7. GlaxoSmithKline SYNAPSE 205687 (Phase 3 RCT, mepolizumab for nasal polyps): 2018-2019
8. AstraZeneca OSTRO D3252C00001 (Phase 3 RCT, benralizumab for nasal polyps): 2018-2019
9. Parexel CIFLOT3-16IA01 (Phase 3 RCT, ciprofloxacin plus fluocinolone for otitis externa): 2017-2018
10. Otonomy OTO-201-201607 (Phase 3 RCT, ciprofloxacin gel for acute otitis externa): 2016
11. Parexel Coca4vs10-002 (Phase 3 RCT comparing 4% to 10% cocaine for topical anesthesia): 2015-2016
12. Parexel Coca4vs10-001 (Phase 3 RCT comparing 4% to 10% cocaine for topical anesthesia): 2014-2015
13. Otonomy OTO-201 (Phase 3 RCT, ciprofloxacin gel for post-tympanostomy tube otorrhea): 2013-2014
14. Entellus Medical REMODEL study (RCT comparing antrostomy to FinESS): 2011-2014
15. Entellus Medical XprESS registry : 2010-2011
16. Entellus Medical RELIEF study (office based antrostomy): 2010-2011
17. Entellus Medical FinESS registry (transantral balloon dilation): 2009-2010
18. AcclarENT radiation exposure study: 2007
19. Bayer 10779 (Avelox for sinusitis): 2003
20. Bristol-Myers Squibb AI420-078 (Tequin for otitis media): 2001-2002
21. Aventis HMR 3647A/3014 (Ketek for sinusitis): 2001-2002
22. Viropharma VP63843 (Pleconaril for common cold): 2000
23. SmithKline Beecham 265805/009 (Augmentin for sinusitis): 1999-2000
24. Armstrong: ChiselTip Suction Cautery Device / Tonsillectomy: 1999
25. SOURCE Pediatric Quality of Life Study: 1999
26. Hoescht Marion-Roussel 3647 (Sinusitis): 1999
27. SOURCE Sudden Sensorineural Hearing Loss (valcyclovir): 1998 - 2000
28. SOURCE Ceftin and Flonase for Sinusitis: 1998 - 2000
29. Bayer D96-023 (Phase 3, ciprofloxacin for sinusitis): 1998
30. SmithKline Beecham BRL-25000/510 (Augmentin for sinusitis): 1998 - 1999
31. SOURCE Adult Quality of Life Study: 1997
32. Armstrong: Functional Endoscopic Sinus Surgery Outcomes study: 1997 - 2001
33. Lilly B9U-MC-AZCX (Phase 3 co-investigator for sinusitis): 1995 – 1996

## Conflict of Interest Statement

I do not have a significant financial interest in the sale of products or services of any medical or pharmaceutical corporation. Within the past 5 years, however, I have received compensation for performing clinical research sponsored by Astra Zeneca, Frequency, Glaxo, Gossamer, Impel, Salvat, Lannett and Otonomy. I have also received speaking honoraria from Thermo Fisher and Lannett, and I have presented data on behalf of Entellus.



Michael Armstrong Jr., MD