

CURRICULUM VITAE

L. Clarke Cox, Ph.D.

Current Position:

Chief of Audiology
Department of Otolaryngology
Boston Medical Center

Professor of Otolaryngology
Boston University School of Medicine

Associate Clinical Professor
Department of Speech, Language & Hearing Sciences
Sargent College of Health and Rehabilitation Sciences
Boston University

Former Positions:

Chief of Audiology, University Hospital, Boston, MA (1988 – 1996)
Assistant & Associate Professor of Audiology
Cleveland State University, 1975-1988

Education:

B.S. Utah State University Logan, Utah 1972
M.S. Utah State University Logan, Utah 1973
Ph.D. Bowling Green State University Bowling Green, Ohio 1975

Research Affiliations:

Rainbow Babies & Children's Hospital, Case Western Reserve University,
Cleveland, Ohio, 1978- 1988
Mt. Sinai Medical Center of Cleveland, 1986 - 1987
Boston City Hospital (Special Scientific Staff), Boston, MA 1991 –1996
Brandeis University, Waltham, MA , 2002 – present (Visiting Research Associate)

Referred Publications

Cox, L.C. and Greenberg, H.J.: Effects of the human middle ear muscle contractions on speech intelligibility. J. Am. Aud. Soc. 3: 80-83, (1977)

Cox, L.C. and Metz, D.A.: ABER in the prescription of hearing aids. Hearing Instruments 31: 12, (1980)

Cox L.C., Hack, M., and Metz, DA, Brainstem evoked response audiometry; Normative data from the preterm infant. Audiology 20: 530, (1981).

Cox, LC, Hack, M, Metz, DA, Brainstem evoked response audiometry in the premature infant population. Int. J. Ped. ORL 3: 213, (1981).

Cox L.C., Hack, M., and Metz, D.A. Longitudinal ABR in the NICU infant. Int. J. Ped. ORL 4: 224, (1982)

Lee, S.H., and Cox, L.C.: Latency-Intensity functions of the auditory brainstem evoked response in premature infants. FLASHA, June, (1982)

Cox, L.C., Hack, M., and Metz, D.A.: ABR abnormalities in the low birth-weight infant-Incidence and risk factors. Ear and Hearing 5(1): 47, (1984)

Cox, L.C.: The current status of the ABR testing in neonatal populations. Ped. Res. 18: 780, (1984).

Cox, L.C.: Screening the high-risk newborn for hearing loss: The Crib-o-gram vs. the auditory brainstem response. Inf. Young Child 1: 71, (1988)

Cox, L.C.: Auditory brainstein response and subsequent development. Hearing Instruments 40: 20, (1990)

Cox, L.C., Hack, M., Aram, D., Borawski, E.: Neonatal auditory Brainstem response failure of very low birth-weight infants: Eight year outcome. Ped Res, 31(1): 68-72, (1992)

Cox, L.C., Bankson, N., Kidd, G., and Burkard, R.: The clinical doctoral program at Boston University part one: Program overview. Aud. Today. 4:3, 23-25, (1992)

Cox, L.C., Bankson, N., Kidd, G., and Burkard, R.: The professional doctorate at Boston University part two: Experience and commentary on the AuD. Aud. Today. 4:6, 17-19, (1992)

Cox, L.C., Martin, R., Carlo, W., and Hack, M.: Early ABRs in infants undergoing assisted ventilation, J. Am. Acad. Aud. 4:1, 13-17, (1993)

Cox, L.C. and MacDonald, C.B.: Patient with Audible Popping Sounds Emanating from the Ear Canal. J. Am. Acad. Aud. 6:3, 261-263, (1995)

Cox, L.C. and MacDonald, C.B.: Large Vestibular Aqueduct Syndrome! A Tutorial and Three Case Studies. J. Am. Acad. Aud. 7, 71-76, (1996)

Schreibstein J.M., MacDonald C.B., Cox L.C., McMahon L & Bloom, DL: Sudden hearing loss in sickle cell disease: A case report. ORL - Head and Neck Surgery 116:4,541-544, (1997)

Cox L.C.: Otoacoustic emissions as a screening tool for sensorineural hearing loss. J. Peds 130:5, 685-686 (1997)

Pellett FS, Cox LC, MacDonald CB: Use of acoustic reflectometry in the detection of middle ear effusion. J. Am. Acad. Aud. 8:3, 181-187(1997)

Levine A, Cox LC, MacDonald, CB: The utility of EMLA in the relief of pain associated with electroneurography J. Am. Acad. Aud 9:1,41-46(1998).

Walsh FP, Cox LC, MacDonald CB: Historical perspective of the acoustic otoscope. J. Am Acad Aud 9: 1, 35-40 (1998)

Kessler, JL, MacDonald CB, Cox LC: A bizarre sawtooth tympanogram in a patient with otitis media J. Am. Acad Aud 9:4, 272-274 (1998).

MacDonald CB, Bauer PW, Cox LC, McMahon L: Otologic findings in a pediatric cohort of sickle cell disease. Ped. ORL 47, 23-28 (1999)

Bauer, PW, MacDonald, CB, Cox, LC: Intratympanic gentamicin therapy for vertigo in nonserviceable ears. Am J. Otolaryngol 22:2, 111-115 (2001).

Cox, LC, Toro, MR: Evolution of a universal infant hearing screening program in an inner city hospital. Ped Oto Rhino Laryngol 59, 99-104 (2001).

Fligor, BF, Cox, LC, Nesathurai, S: Patient with subjective hearing loss and history of TBI exhibits abnormal ABR. Arch Physical Med Rehab 83, 141-43 (2002).

Kidd, GD, Cox, LC, Matthies, ML: Boston University Doctor of Science Degree Program: Clinical doctorate in audiology. Am J. Audiology12, 3-6 (2003).

Bakthavachalam, S, Driver, M, . Cox, C, Spiegel, J, Grundfast, K, Merkel, P., Hearing loss in Wegener's Granulomatosis. Otology & Neurotology, 25:5, 883-37 (2004)

Fligor, B, Cox, C., Output levels of commercially available CD players and potential risk to hearing. Ear & Hearing , 25:6, 513-27,(2004)

Zhou, G, & Cox, C., Vestibular evoked myogenic potentials: History and overview. Am J. Audiology, 13, 1-6, (2004).

McCoy, S, Tun, P, Cox, C, Colangelo, M, Stewart, R, Wingfield, A. Hearing loss and perceptual effort: Downstream effects in older adults' memory for speech. Quart J of Exp Psy 58A (1), 22-33, (2005)

Wingfield, A. McCoy, SL, Peeelle, JE, Tun, PA, Cox, LC, Effects of adult aging and hearing loss on comprehension of rapid speech varying in syntactic complexity. J. Am. Academy of Audiology 17:487 (2006)

Wingfield, A., Tun, P.A., McCoy, S.L., Stewart, R.A., & Cox, L.C. Sensory and cognitive constraints in comprehension of spoken language in adult aging. Seminars in Hearing. 27:4 273-283, 2006

Cox, LC, McCoy, SL, Tun, PA, Wingfield, A. Monotic auditory processing disorder tests in the older adult population. J. Am. Academy of Audiology, 19:4, 283-308 (2008).

Benichov, J, Cox, LC, Tun, PA, & Wingfield, A. Word Recognition Within a Linguistic Context: Effects of Age, Hearing Acuity, Verbal Ability, and Cognitive Function. Ear & Hear, 33:2, 250-256 (2012).

Chapters in Books:

Cox, LC, Development and age related considerations of the ABR, in: The Auditory Brainstem Response, J. Jacobson , ed. College-Hill Press, 1985.

Lasky, EZ, Cox, LC. Auditory processing and language interaction, in: Central Auditory Processing Disorders, E. Lasky & J. Katz, eds. Univ Park Press, 1983.

Hall, CD, Cox, LC. The role vestibular rehabilitation in the balance disorder patient, in: Palliative Therapy in Otolaryngology-Head & Neck Surgery, KM. Grundfast & GP Dunn, eds. Otolaryngologic Clinics of North America, 42:1, 2009.

Abstracts:

Cox, LC, Hack, M, Metz, DA, Fanaroff, A. Auditory brainstem evoked responses for screening very low birth-weight infants: Effects of gentamycin and neonatal risk factors on maturation. Ped Res. 13:524 (1979).

Cox, LC, Aram, D, Weissman, B, Borawski, E, Hack, M. Neonatal ABR failure of VLBW infants: Eight year outcome, Ped, Res. 25:4, April, 1989.

Cox, LC, Carlo, WA, Hack, M, Martin, RJ. Effect of type and intensity of assisted ventilation on ABRs in preterm infants. Ped. Res. 25:4, April, 1989.

Other Publications:

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Cox, LC, Present and future issues regarding cochlear implants at Boston City Hospital, Contact, 9:1, 11 (1994).

Fligor, BJ, Cox, LC. Understanding hearing loss in the elderly, ADVANCE for Nurses, April, 27 (2004).

Fligor, BJ, Cox, LC. Risk to hearing from personal stereo systems, Audiology Today, March, 18, (2005).

McCoy, SL, Tun, PA, Cox, LC, Wingfield, A. Aging in a fast-paced world, ASHA Leader, July 12, 30 (2005).

Current Research Activity

Department of Otolaryngology, Boston University School of Medicine: Looking at vestibular schwannoma patients, co-morbid conditions, occult lesions and social/ health related factors in early identification.

Department of Biomedical Engineering, Boston University. Looking at the effects of hearing loss and aging on binaural hearing.

Publication in process: Effects of aging and hearing impairment on speech intelligibility at different rates, Aaron Wolfson, et al.

Department of Psychology, Volen Center, Brandeis University: Effects of aging and hearing loss on cognitive and auditory processing.

Professional Associations:

Scientific Fellow, American Academy of Otolaryngology-Head & Neck Surgery
Fellow, American Academy of Audiology
American Speech-Language and hearing Association
American Auditory Society
International Society of Audiology
American Balance Society

Presentations While at BUMC

Iatrogenic case of hydrops?, *Annual meeting of the American Balance Society, Scottsdale, AZ, march, 2012.*

Comorbidity in vestibular schwannoma patients (with S. Jalisi), Annual meeting of the American

Academy of Audiology, San Diego, CA, April, 2010.

Incidental detection of CPA tumors, Annual meeting of the American speech-Language-Hearing Assoc., Philadelphia, PA, November, 2010.

Diagnosis and treatment of CPA tumors (with S. Jalisi). Annual meeting of the American Academy of Audiology, Dallas, TX, April, 2009.

Recreational Noise-induced hearing loss, IMPACT 2009, American Academy of Physician Assistants, San Diego, CA, May, 2009.

Presentations continued

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Noise-Induced Hearing loss, 36th Annual Conference of the American Academy of Physician Assistants, Boston, MA, October, 2008.

Families resistant to hearing aid use for their children (with J. Ziegberman). National EHDI conference, New Orleans, LA, February, 2008.

Treatment of nasopharyngeal carcinoma and hearing loss (with A. Kozak). Annual meeting of the American Auditory Society, Scottsdale, AZ, March, 2008.

Role of audiology and otolaryngology in the identification and treatment of CPA tumors (With S. Jalisi). Annual meeting of the American Academy of Audiology, Charlotte, NC, April, 2008.

Two cases of iatrogenic hydrops. Annual meeting of the American Academy of Audiology, Charlotte, NC, April, 2008.

Wideband Reflectance Measures of Middle Ear Functioning: Automated Hearing Tests: Keynote Issues & panel. Annual meeting of the American Speech-Language-Hearing Assoc., Boston, MA, November, 2007.

Hearing and cognitive change in the aging adult. American Academy of Audiology annual meeting, Washington, D.C., April, 2005.

Audiologic and cognitive manifestations in geriatric patients. American Academy of Audiology annual meeting, Washington, D.C., April, 2005.

Auditory processing disorders and cognitive function in the elderly. Annual meeting of the American Academy of Audiology. Salt Lake City, UT. April, 2004

Vestibular evoked myogenic potentials in normal subjects. Annual meeting of the American Academy of Audiology. Salt Lake City, UT. April, 2004

Marketing to physicians and related health professionals. Annual meeting of the American Academy of Audiology. Salt Lake City, Utah, April, 2004.

Hearing loss and the impact on communication in elderly listeners. Boston University Gerontology Symposium. June, 2004.

Wegener's disease and hearing loss. University of Connecticut Symposium, October, 2004.

Auditory processing disorders in the geriatric patient: Results of specific assessment. University of Connecticut Symposium, October, 2004.

Special ABR applications in the detection of small acoustic tumors. Annual meeting of the Mass. Speech-Language-Hearing Assoc., Worcester, MA. September, 2003.

Presentations continued

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Evaluation of middle ear disorder not related to complaints of hearing loss. Annual meeting of the American Academy of Audiology, Philadelphia, PA, April, 2002.

Case study data on seven patients with auditory neuropathy, Annual meeting of the American Academy of Audiology, San Diego, CA, April, 2001.

Middle ear reconstructive surgery and audiometric outcome, Annual meeting of the American Academy of Audiology, San Diego, CA, April, 2001.

Series of patients with lyme disease and sensorineural hearing loss, tinnitus and vertigo. Annual meeting of the American Academy of Audiology, Chicago, IL, April, 2000.

Data from 110 patients with congenital hearing loss, Annual meeting of the American Academy of Audiology, Chicago, IL, April, 2000.

Middle ear surgery and expected audiometric outcomes, Annual meeting of the American Academy of Audiology, Chicago, IL, April, 2000.

A multidisciplinary approach to assessment and treatment of the balance disordered patient, Annual Meeting of American Academy of Audiology, Miami Beach, FL, April, 1999.

Middle ear reconstructive surgery and audiometric outcome, Annual Meeting of American Academy of Audiology, Miami Beach, FL, April, 1999.

Clinical Applications of otoacoustic emissions, Annual Meeting, The Maine Speech-Language-Hearing Association, Rockport, ME, April, 1999.

Audiometric Outcome Associated with Middle and External Ear Surgery with Bruce MacDonald, Annual Meeting of the American Academy of Audiology, Los Angeles, CA, April, 1998

Hearing in Acoustic and Barotrauma, Boston University School of Medicine, Course on trauma in Head and Neck Surgery, Boston, MA May, 1998

Hearing loss associated with treatment of nasopharyngeal CA, Annual Meeting ORL-HNS, San

Antonio, TX, September, 1998.

Further Study of the Acoustic Otoscope, Annual Meeting of ORL-HNS, San Antonio, TX, September, 1998.

The Current Status of ABR Testing with Vestibular Schwannoma. Annual Meeting of the American Auditory Society, Ft. Lauderdale, FL, April, 1997.

Evolution of a Universal Infant Hearing Screening Program with Peg Toro. Annual Meeting of the American Academy of Audiology. Ft. Lauderdale, Fi, April, 1997.

Presentations continued

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Four Cases of Vestibular Schwannoma and Normal ABR, with CB MacDonald. Annual Meeting of the American Academy of Audiology, Ft. Lauderdale, FL. April, 1997.

The Use of EMLA to Reduce Pain Associated with ENoG with A. Levin. Annual Meeting of the American Academy of Audiology, Ft.Lauderdale, FL, April, 1997.

Middle Ear Surgery and Audiometric Outcome, with CB MacDonald. Annual Meeting of the American Academy of Audiology, Ft. Lauderdale, FL. April, 1997.

Otologic, audiometric and neurologic progression in patients with vestibular schwannoma, with B. MacDonald, Annual meeting of the American Academy of Otolaryngology- Head and Neck Surgery, San Francisco, CA, Sept., 1997.

Maximum length sequence ABR: Normative data, Annual meeting of the American Speech-Language-Hearing Assoc., Boston, MA, November, 1997.

Correlation of Audiometric and Dynamic Micro-endoscopic Data, with CB MacDonald. Annual Meeting of the American Academy of Audiology, Salt Lake City, UT, April, 1996

Audiometric outcome with various external and middle disorders, with CB MacDonald. Annual Meeting of the American Academy of Audiology, Salt lake City, UT, April 1996

Endoscopic and audiometric configurations associated with middle ear disease. Boston University Hearing Research Seminar, Feb., 1996.

Hearing Loss in a Cohort of Sickle Cell Children, A Prospective Study, with CB MacDonald, 20th Meeting of the National Sickle Cell Program, Boston, MA, March, 1995

Evaluation of External and Middle Ear Disorders with Audiometry and Endoscopy with CB MacDonald, AAA Annual Meeting, Dallas, TX, April, 1995

Universal Infant Hearing Screening: Fact & Fiction, Controversies in Otolaryngology-Head & Neck Surgery, Boston, MA, June 1995.

The Utility of Maximum Length Sequences in BAER Testing, with RF Burkard and CB MacDonald. Annual Meeting of American Academy of Otolaryngology - Head & Neck Surgery, New Orleans, LA September, 1995

Sensitivity and Specificity of the Acoustic Oscope in Detection of Middle Ear Effusion, with FS Pellett and CB MacDonald. Annual meeting of American Academy of Otolaryngology - Head & Neck Surgery, New Orleans, LA September, 1995

Historical Perspective of the Acoustic otoscope, with FS Pellett and CB MacDonald. Annual Meeting of the American Speech-Hearing-Language Association, Orlando, FL, December, 1995

Presentations continued

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Audiometric, vestibular and radiographic findings in patients with large vestibular aqueduct syndrome, Boston University Hearing Research Seminar, January, 1995.

Professional education in audiology: Times are changing, American Speech-Language-Hearing Assoc. Conference, January, 1994.

Sensorineural hearing loss in a pediatric sickle cell disease population, With B. MacDonald, 19th Annual meeting of the National Sickle Cell Disease Program, New York, NY, March, 1994.

Endoscopic and audiometric evaluation of EAC and middle ear disorder, With B. MacDonald, Annual meeting of the American Academy of Audiology, Richmond, VA, April, 1994

Evaluation and management of the dizzy patient: Perspectives from Audiology, Otoneurology,

Otology and Neurology. Miniseminar, American Auditory Society and International Congress of Audiology, Halifax, Nova Scotia, July, 1994.

BAERS obtained with maximum length sequences, Massachusetts Speech-Language-Hearing Association annual meeting, April, 1993.

Audiometric and vestibular findings in three patients with LVA. Annual meeting, American Academy of Audiology, April, 1993.

New England Otolaryngological Society, Recent findings and current philosophies relative to geriatric patients with hearing loss, December, 1993

The role of ABR in early identification and intervention of hearing loss: Phase two, Massachusetts Speech-Language-Hearing Association annual meeting, April 1992.

Neonatal ARB failure of VLBW infants: Eight year outcome, Annual meeting of the American Speech-Language-Hearing Assoc., Seattle, WA, November, 1990.

Auditory evoked potentials in pediatric populations, Tenth Annual Institute for Management of Communicatively Handicapped, Logan, UT, July 1988.

Pediatric hearing assessment: Methods, techniques and management, Annual meeting of the Wyoming Speech-Language-Hearing Assoc., Casper, WY, October, 1988.

Invited Lectures at the Otolaryngology Alumni Day, Boston University School of Medicine

1995 – Universal Newborn Hearing Screening: Fact or Fiction

1997 – Hot Topics in ABR and Otoacoustic Emissions

1998 – Hearing loss in acoustic and barotrauma

2003 - Auditory Outcomes with Acoustic Trauma

Activity With National Organizations

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I have served on committees for the American Academy of Audiology. I served on the Marketing Committee for over four years, two of those as co-chair. I served on the Public Relations Committee for over four years as chair. These chair positions are appointed by the President of the Academy.

Assistant Editor, Journal of American Academy of Audiology

Reviewer:

American Journal of Audiology

Archives of Pediatric & Adolescent Medicine

Ear & Hearing

International Pediatric Otorhinolaryngology

Journal of Neurology, Neurosurgery & Psychiatry

Journal of Pediatrics

Pediatric Research

Otolaryngology – Head & Neck Surgery

Journal of Speech, Language & Hearing Research

Speech Communication

Journal of the American Academy of Audiology

Field Reader: US Department of Education, 1994

Text Reviewer: Auditory Evoked Potentials, Burkard, Don & Eggermont Eds., 2007, Lippincott Williams & Wilkins, 731 pgs.

Funded grants

1989: Boston University School of Medicine, new lab grant, \$4915.00 Used to purchase ABR equipment. Proposed study was for frequency specific ABR and newborn screening and start study, (PI).

1990: Seed Grant Boston University, \$1900.00 Funds used to purchase probe mike and filters to be used to ABR unit. Study title was infant ABRs and evoked oto-acoustic emissions in the assessment of infant hearing loss (PI).

1993 – 1997: The Peabody Foundation, \$171,950.00. Over the five year period of this grant, monies were used to purchase several pieces of equipment, pay for ABR test supplies, and to pay personnel to begin newborn hearing screening. This grant basically funded the entire study process from start-up to completion of a universal newborn hearing screening program at BCH/BMC. There was no IDC since this grant was funded through the Fund For Excellence program at BCH. (PI).

1993: Natus Medical Inc. The application was in response to a RFP by Natus. They awarded 6 units around the USA based on the proposals written. The intent was to facilitate newborn hearing screen. The response of Natus was to the NIH consensus conference held earlier that year where universal newborn hearing screening (UNHS) was recommended. We were one of the six sites chosen to be given a Natus automated ABR unit. Approximate value was \$18,000. (PI)

Funded Grants Continued

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2000-2001: Grant awarded by Department of Pediatrics, BMC (Kids Fund) to provide funding for the UNHS program at BMC. \$10,000.00 over two year period. (PI)

2002 – 2007: NIH RO1 Grant, Hearing Acuity, Cognitive Aging and Memory for Speech. Sub-contract with Brandeis University, Art Wingfield, Ph.D. PI. BU sub-contract = \$138, 200.00 (co-investigator).

2007 – 2012: Renewal of above grant, sub-contract = \$135, 550.00 (co-investigator)

2012 – 2017: Renewal of above grant, sub-contract = \$ 65, 200.00 (co-investigator)

Grants not Funded

1992: NIH-RFA, Early identification of infant hearing impairment, \$180,000 (PI)

1993: Dept. of Education – Training Grant, Advanced training in audiology, \$100,000/year for four years (PI)

1995: Deafness Research Foundation – OAEs and ABRs in a pediatric HIV population, \$15,000 (PI)