

Curriculum Vitae

Part I: General Information

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Full Name: Mark Edward Alexander, MD

Office Address:

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Children's Hospital Boston
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Boston, MA 02115
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Place of Birth: Rochester, NY

Education:

1980	BA	Amherst College, Amherst, MA Biology, Neuroscience Double Major
1981-2		Northwestern University Medical School, Chicago, IL 1 st Year Medical Curriculum
1985	MD	Boston University School of Medicine, Boston, MA

Postdoctoral Training:

Pediatric Residency

1985	PL-1	Tripler Army Medical Center, Honolulu, HI
1986-8	PL2-3	Tripler Army Medical Center

Cardiology Fellowship

1993-96		Children's Hospital-Boston
1996-1998		Electrophysiology, Children's Hospital-Boston

Licensure and Certification:

1985 -1/31/1994		Medical License, Hawaii
1988- Present		DEA Registration BA3174668
1988		Pediatric Advanced Life Support
1989		Instructor
1988		Advanced Trauma Life Support
1989- 12/31/1993		Medical License, Louisiana
1993- present		Medical License, Massachusetts 77492
1989		American Board of Pediatrics
1997-2003		Program for Recertification in Pediatrics
2004-2010		Program for Recertification in Pediatrics

1993-Present	Massachusetts Controlled Substance Registration: MA0030697A
1998-2005	American Board of Pediatrics, Sub board in Pediatric Cardiology
2005-2012	Program for Recertification in Pediatrics; Sub board of Pediatric Cardiology

Academic Appointments:

1988-1993	Clinical Instructor in Pediatrics	Uniformed Services University of Health Sciences
1993-1998	Clinical Fellow in Pediatrics	Harvard Medical School
1998-2005	Instructor in Pediatrics	Harvard Medical School
2005-	Assistant Professor in Pediatrics	Harvard Medical School

Hospital or Affiliated Institution Appointments:

1988-1989	Pediatrician	Tripler Army Medical Center Honolulu, Hawaii, 96859-5000
1989-1992	Pediatrician	Bayne-Jones Army Hospital Ft. Polk, LA 71459-6000
1992-1993	Contract Physician	Bayne Jones Army Community Hospital (Employed by National Emergency Services)
1993-1998	Fellow in Pediatric Cardiology	Children's Hospital, Boston
1994-1997	Pediatrician	MIT Health Service, Afterhours Clinic
1995-2003	Consultant in Pediatric Cardiology	Boston Medical Center, Boston, MA
1998-2005	Assistant in Cardiology	Children's Hospital, Boston
2005-Present	Associate in Cardiology	Children's Hospital, Boston
2002-2007	Consultant in Pediatric Cardiology	New England Medical Center/Floating Hospital for Children, Boston, MA
2003-Present	Consultant in Pediatric Cardiology	Brigham and Women's Hospital, Boston, MA

Other Professional Positions and Major Visiting Appointments:

1980-1981	Research Technician	Neurosurgery, Massachusetts General Hospital
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Hospital and Health Care Organization Service Responsibilities:

1989-1992	Chief, Department of Pediatrics	Bayne-Jones Army Hospital
1991-1992	Chief, Department of Medicine	Bayne Jones Army Community Hospital

Major Administrative Responsibilities:

Affiliated Institution

Tripler Army Medical Center

1988-89	<i>Course Manager: Practical Pediatrics in Paradise.</i> Coordinated 4 day national CME course hosted by Tripler Army Medical Center.
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Children's Hospital-Boston

1995-1996	<i>Chief Fellow, Pediatric Cardiology</i> Instituted an annual faculty teaching award and faculty evaluation. Served on departmental education committee.
1998-Present	<i>Co-Director, Exercise Physiology</i> Supervised the increase in volume from ~ 25/month in 1997 to 147/month the past year.
2000-Present	<i>Director Non-invasive electrophysiology</i> Manages EKG and arrhythmia monitoring service which performs 2200 electrocardiograms/month, and 148 ambulatory electrocardiograms/month. EKG Volume as increased 88% over 10 years with ambulatory monitoring volume increasing 60%.

Major Committee Assignments:

Affiliated Institution

Tripler Army Medical Center

1988-1989 Program Budget Advisory Committee

Bayne Jones Army Community Hospital

1989-1993 Risk Management Committee
Utilization Review Committee (Chair, 1991)
Drug Utilization Review Committee (Chair, 1990-1992)
Pharmacy and Therapeutics
Hospital Quality Improvement Committee
Assistant Deputy Commander for Quality Management (1991)
Family Advocacy Case Management Team

Children's Hospital-Boston

1995-1996 Cardiology Education Committee
2000-Present Cardiology Ambulatory Care Committee
2002-2007 Cardiology Scientific Review Committee
2003- Present Medical Records Committee, Member
2005 Ad-hoc Pharmacy and Therapeutics Committee on Adderal
2007-Present Syncope CPG Committee: Cardiology committee tasked with developing a rational outpatient, evidence-based guideline and then evaluating that prospectively.

Regional

American Heart Association, Boston Area Council

2000-2003 Operation Heart Beat- Public Access Defibrillation
2001-2003 Cardiovascular Disease in the Young, Member
2008-Present New England Community Strategies Council

Professional Societies:

1989- 2004-	American Academy of Pediatrics Subsection on Pediatric Cardiology	Fellow
2000-	Heart Rhythm Society (North American Academy of Pacing and Electrophysiology)	Member
2000- 2004-	Pediatric Electrophysiology Society American College of Cardiology	Member Fellow

Community Service Related to Professional Work:

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| 2000-
2003 | Operation Heartbeat
Worked with committee members to put school based public access defibrillation on the active agenda. Directly spearheaded drive to place automatic external defibrillators into the Brookline school system by testifying at school board meetings, meeting with Brookline health director and meeting with school nurses. These efforts resulted in the Brookline school system deploying AEDs in each of the elementary schools and in critical locations at the high school and with the athletic trainer. In addition these efforts have encouraged surrounding school districts to respond with similar programs. | Boston Area American Heart Association |
| 2006- | Regional SADS Family Conference.
Coordinated an afternoon conference for families and paraprofessionals on managing Long QT syndrome and related disorders. Conference included educational presentations, interactive discussion and opportunities for family networking which were attended by 20-30 families from throughout New England. | Sudden Arrhythmic Death Syndrome Foundation |
| 2008- | New England Communities Strategic Council
The primary goal of this group is to double survival from out-of-hospital (OOH) sudden cardiac arrest (SCA) in the next 24 months. Along with peers on the New England Council oversees the overall strategic plans made for strengthening the Chain of Survival and systems improvements in communities within Connecticut, Rhode Island, Massachusetts, New Hampshire, Vermont and Maine. The Council also facilitates efforts with Consultation Teams that will provide expertise for the implementation of community-based and localized initiatives. | New England American Heart Association |

Ad Hoc Reviewer:

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| 1996-present | American Journal of Cardiology |
| 1998 | NIH Study Section, Chronic Fatigue Syndrome |
| 1999-present | Journal of Cardiovascular Electrophysiology |
| 2000-present | PACE |
| 2004-present | Heart Rhythm |
| 2004-present | Journal of the American College of Cardiology |
| 2004-present | Circulation |
| 2004 | Neurological Foundation of New Zealand |
| 2006-present | Heart |
| 2006-present | Journal of Interventional Electrophysiology |
| 2006-present | Pediatrics |
| 2007-present | International Pediatrics |
| 2007-present | Journal of Intensive Care Medicine |

Awards and Honors:

- 1975 Illinois State Scholar
- 1975 National Merit Letter of Commendation
- 1981 John Woodruff Simpson Fellow in Medicine
- 1981 US Army Health Professions Scholarship Program Scholarship
- 1989 Andrew M. Margileth Award, Second Place 24th Uniformed Services Pediatric Seminar: Provocative Echocardiography in Children with MVP.
- 1989 Honorable Mention, American Academy of Pediatrics Housestaff Research Competition
- 1989 First Place, Tripler Army Medical Center, Housestaff Research Competition
- 1989 Army Achievement Medal
- 1989 Overseas Service Ribbon
- 1992 Army Commendation Medal
- 1993 Army Communities of Excellence Award
- 1993 Army Meritorious Service Medal
- 1996 Research Training Fellowship, Internal award from Departmental NIH Training Grant
- 1996 Honorable Mention, New England Electrophysiology Society, Research Competition
- 2000 Nominated for Cardiology Fellows Faculty Teaching Award.

Part III

Original Articles,

1. Cook BA, Nomizu S, **Alexander** ME, Bass JW: Sedation of children for technical procedures: current standard of practice. *Clinical Pediatrics* (Phila) 1992 Mar; 31(3): 137-42.
2. Saul, JP, **Alexander**, ME. Reflex and mechanical aspects of cardiovascular development: Techniques for assessment and implications. *J of Electrocardiology*.. 30 (suppl) 57-63, 1998.
3. Saul, JP, **Alexander**, ME Preventing sudden death after repair of Tetralogy of Fallot: Complex therapy for complex patients. *Journal of Cardiovascular Electrophysiology*, 10, pp 1271-1287, 1999
4. **Alexander**, Mark. E., Triedman, JK, Saul, JP, Epstein, MR Walsh, EP, Value of Programmed Ventricular Stimulation in Patients with Congenital Heart Disease. *Journal of Cardiovascular Electrophysiology*, 10, pp 1033-1044, 1999
5. Walker, RE, Mayer, JE, **Alexander**, ME, Walsh, EP, Berul, CI. Paucity of sinus node dysfunction following repair of sinus venous defects in children. *American Journal of Cardiology*. 87:10, pp1223-1226, 2001 May
6. Triedman JK. **Alexander** ME. Berul CI. Bevilacqua LM. Walsh EP. Estimation of atrial response to entrainment pacing using electrograms recorded from remote sites. *Journal of Cardiovascular Electrophysiology*. 11(11):1215-1222, 2000 Nov
7. Zupancic, John A. F, Triedman, JK, **Alexander**, ME, Walsh,EP, Richardson, DK, Berul, CI, Cost-Effectiveness and Implications of Newborn Screening for Prolongation of QT Interval for the Prevention of Sudden Infant Death Syndrome. *Journal of Pediatrics* 136:481-9. 2000
8. Barry A. Love MD; Kathleen S. Barrett RN, PNP; Mark E. **Alexander** MD; Laura M. Bevilacqua MD; Michael R. Epstein MD; John K. Triedman MD; Edward P. Walsh MD; Charles I. Berul MD Supraventricular Arrhythmias in Children and Young Adults with Implantable Cardioverter Defibrillators. *Journal of Cardiovascular Electrophysiology*. Vol 12, No. 10, October 2001

9. Charles I. Berul; John K. Triedman; Joseph Forbess; Laura M. Bevilacqua; Mark E. **Alexander**; Danielle Dahlby; James O. Gilkerson; Edward P. Walsh. Minimally Invasive Cardioverter Defibrillator Implantation for Children: An Animal Model and Pediatric Case Report, *PACE*, Vol., 24 No. 12, December 2001
10. Triedman JK, **Alexander** ME, Berul CI, Bevilacqua LM, Walsh EP. Electroanatomic mapping of entrained and exit zones in patients with repaired congenital heart disease and intra-atrial reentrant tachycardia. *Circulation*. 2001;103:2060-2065.
11. Triedman JK, **Alexander** ME, Love BA, Collins KK, Berul CI, Bevilacqua LM, Walsh EP. Influence of patient factors and ablative technologies on outcomes of radiofrequency ablation of intra-atrial reentrant tachycardia in patients with congenital heart disease. *Journal of the American College of Cardiology*. 2002;39:1827-1835.
12. Stephenson EA. Collins KK. Dubin AM. Epstein MR. Hamilton RM. Kertesz NJ. **Alexander** ME. Cecchin F. Triedman JK. Walsh EP. Berul CI. Circadian and seasonal variation of malignant arrhythmias in a pediatric and congenital heart disease population.[comment]. [Evaluation Studies. Journal Article. Multicenter Study] *Journal of Cardiovascular Electrophysiology*. 13(10):1009-14, 2002 Oct
13. Stephenson EA. Casavant D. Tuzi J. **Alexander** ME. Law I. Serwer G. Strieper M. Walsh EP. Berul CI. ATTEST Investigators. Efficacy of atrial antitachycardia pacing using the Medtronic AT500 pacemaker in patients with congenital heart disease. *American Journal of Cardiology*. 92(7):871-6, 2003 Oct 1.
14. Mandapati R. Berul CI. Triedman JK. **Alexander** ME. Walsh EP. Radiofrequency catheter ablation of septal accessory pathways in the pediatric age group. [Journal Article] *American Journal of Cardiology*. 92(8):947-50, 2003 Oct 15
15. **Alexander**, ME., Cecchin, F, Triedman, JK, Walsh, EP, Berul, CI. Implications of ICDs in Pediatrics and Congenital Heart Disease, *Journal of Cardiovascular Electrophysiology*, 15,1 72-76, January 2004
16. Collins KK. Rhee EK. Delucca JM. **Alexander** ME. Bevilacqua LM. Berul CI. Walsh EP. Mayer JE. Jonas RA. del Nido PJ. Triedman JK. Modification to the Fontan procedure for the prophylaxis of intra-atrial reentrant tachycardia: short-term results of a prospective randomized blinded trial. [Clinical Trial. Journal Article. Randomized Controlled Trial] *Journal of Thoracic & Cardiovascular Surgery*. 127(3):721-9, 2004 Mar.
17. Khairy P, Landzberg MJ, Gatzoulis MA, Lucron H, Lambert J, Marçon F, **Alexander**, ME and Walsh EP. Value of Programmed Ventricular Stimulation after Tetralogy of Fallot Repair: A Multicenter Study. *Circulation* 2004; 109. 1994-2000
18. Stephenson EA, Cecchin, F., **Alexander** ME, Triedman, JT, Walsh EP. Berul CI. Relation of Right Ventricular Pacing in Tetralogy of Fallot to Electrical Resynchronization, *American Journal of Cardiology*, 93: 1449-1452.
19. Fortescue EB, Berul, CI, Cecchin, F, Walsh, EP, Triedman, JK, **Alexander** ME, Patient, Procedural, and Hardware Factors Associated with Pacemaker Lead Failures in Pediatrics and Congenital Heart Disease *Heart Rhythm*, 2004, Vol 1/2 pp 150-159.
20. Morwood, JG, Triedman, JK, Berul,CI, Cecchin, F, **Alexander** ME, Walsh, EP, Catheter Ablation for Ventricular Tachycardia in Young Patients *Heart Rhythm* 2004, Vol 1/3 pp 301-308
21. Triedman, JK, DeLucca, JM, Alexander, ME, Berul, CI, Cecchin, F, Walsh, EP, Prospective trial of electroanatomically guided, irrigated catheter ablation of atrial tachycardia in patients with congenital heart disease. *Heart Rhythm* 2005, Vol 2/7 pp 700-704

22. Fortescue EB, Berul, CI, Cecchin, F, Walsh, EP, Triedman, JK, **Alexander** ME, Thin Transvenous Versus Steroid-Eluting Epicardial Pacemaker Leads in Pediatrics and Congenital Heart Disease: Performance Characteristics and Outcomes. *Journal of Interventional Electrophysiology*, 2005 Oct;14(1):27-36
23. Meier PM, **Alexander** ME, Sethna, NF, .De Jong-De Vos Van Steenwijk CE, Zurakowski D, Berde, CB, Complex regional pain syndromes in children and adolescents: regional and systemic signs and symptoms and hemodynamic response to tilt table testing. *Clinical Journal of Pain*, 2006 May;22(4):399-406
24. Bar-Cohen Y, Cecchin F, **Alexander**, ME, Berul CI, Cecchin F, Triedman JK, Walsh EP. Cryoablation for accessory pathways located near normal conduction tissues or within the coronary venous system in children and young adults. *Heart Rhythm*. 2006 Mar;3(3):253-8.
25. **Alexander** ME, Cecchin F, Huang KP, Berul CI. Microvolt t-wave alternans with exercise in pediatrics and congenital heart disease: limitations and predictive value. *Pacing Clin Electrophysiol* 2006 July;29(7):733-41.
26. Bar-Cohen Y, Khairy P, Morwood J, **Alexander** ME, Cecchin F, Berul CI. Inaccuracy of Wolff-Parkinson-white accessory pathway localization algorithms in children and patients with congenital heart defects. *J Cardiovasc Electrophysiol* 2006 July;17(7):712-6.
27. Seslar SP, **Alexander**, ME, Berul CI, Cecchin F, Walsh EP, Triedman JK Ablation of nonautomatic focal atrial tachycardia in children and adults with congenital heart disease. *J Cardiovasc Electrophysiol*. 2006 Apr;17(4):359-65.
28. **Alexander** ME, Cecchin F, Huang KP, Berul CI, T-Wave Alternans in Congenital Heart Disease and Pediatrics *PACE*, Volume 29 Page 733 - July 2006
29. Webster G, Margossian R, **Alexander** ME et al. Impact of transvenous ventricular pacing leads on tricuspid regurgitation in pediatric and congenital heart disease patients. *J Interv Card Electrophysiol* 2007 November 27.
30. Mong, S, Pomeroy, SL, Cecchin, F, Juraszek, A, **Alexander**, ME, Cardiac Risk After Craniopharyngioma Repair. *Pediatric Neurology*, 2008;38 256-260
31. Berul, CI, Van Hare GF, Kertesz, NJ, Dubin, AM, Cecchin, F, Collins, KK, Cannon, BC, **Alexander**, ME, Triedman, JK, Walsh, EP, Friedman, RA. Results of a Multicenter Retrospective Implantable Cardioverter Defibrillator Registry of Pediatric and Congenital Heart Disease Patients, *JACC*, in press.
32. Webster G, Jordao L, Martuscello M, Mahajan T, Alexander ME, Cecchin F, Triedman JK, Walsh EP, Berul CI. Digital music players cause interference with interrogation telemetry for pacemakers and implantable defibrillators without affecting device function. *Heart Rhythm*; 2008: 545-550.

Reviews, Chapters, Case Reports and Editorials

1. **Alexander**, ME, Berul, CI. Ventricular Arrhythmias: When to Worry, *Pediatric Cardiology* 21:532-541, 2000
2. **Alexander**, ME, Berul, CI: Ventricular Tachycardia. E-medicine Pediatrics. www.emedicine.com

3. **Alexander, ME:** Ventricular Arrhythmias in Children and Young Adults in *Cardiac arrhythmias in children and young adults with congenital heart disease*. Eds. Walsh, EP, Saul, JP, Triedman, JK. Lippincotts, Williams & Wilkins, Philadelphia, 2001, p201-234.
4. Divasta, AD, **Alexander, ME.** Fainting Freshmen and Sinking Sophomores: Cardiovascular Issues of the Adolescent, *Current Opinion in Pediatrics* 16(4):350-356, August 2004
5. **Alexander, ME.** Transvenous Pacing in Infants: A Faith Based Initiative?, *PACE* 2004, 27(11), 1463-1465
6. **Alexander, ME.** Entwining electrical and hypertrophic cardiomyopathies, *Heart Rhythm*, 2: 12, December 2005, 1369-1370
7. Seslar, S, Cecchin, F, Berul, CI, **Alexander, ME.** Transient Prolonged Corrected QT interval in Lyme Disease *The Journal of Pediatrics*, 2006 May;148(5):692-7.
8. Newburger, JW, **Alexander, ME,** Fulton, DR. Innocent Murmurs, Syncope and Chest Pain, in *Nadas' Pediatric Cardiology, Second Edition*. Eds: Keane, JF, Lock, JE, Fyler, DC, Saunders-Elsevier, Philadelphia, 2006, p357-372
9. Walsh, EP, Cecchin, F, **Alexander, ME** Electrophysiology Techniques, in *Nadas' Pediatric Cardiology, Second Edition*. Eds: Keane, JF, Lock, JE, Fyler, DC, Saunders-Elsevier, Philadelphia, 2006, p145-182
10. Alexander, ME Syncope, in *Current Pediatric Therapy*, Eds Burg, FD, Ingelfinger, JR, Polin, RA, Gershon, AA, Saunders, Philadelphia, 2006, p36-39.
11. Divasta, AD, **Alexander, ME.** Heart Murmurs and Mitral Valve Prolapse in *Adolescent Health Care: A Practical Guide, 5th Edition*, Eds. Neinstein, LS, Gordon, CM, Katzman, DK, Rosen, DS, Woods, ER, Lippincotts Williams & Wilkins, 2008 220-234
12. Divasta, AD, Mitchell, Wendy **Alexander, ME.** Syncope and Vertigo in *Adolescent Health Care: A Practical Guide, 5th Edition*, Eds. Neinstein, LS, Gordon, CM, Katzman, DK, Rosen, DS, Woods, ER, Lippincotts Williams & Wilkins, 2008 356-365
13. **Alexander, ME.** *Pediatric Arrhythmias in Cardiac Electrophysiology: From Cell to Bedside, 5th Edition*, Eds Zipes, D and Jalife, J, 2008 in press.

Book Review

1. **Alexander ME,** Practical Management of Pediatric Cardiac Arrhythmias. Edited by Zeigler, VL, Gillette, PC, Futura Publishing, NY 2001. in *Journal of Intensive Care Medicine*, 18:3, 2003, p165.

Educational Material

Syncope: from common to serious fainting, *Pediatric Views*, Children's Hospital Boston, December 2000

Understanding Syncope; Krames Publishing, content consultant; 2000

Tilt Table Testing; Krames Publishing, content consultant; 2000

Adenosine, Children's Hospital Boston, Nursing Policy and Procedure, Cardiovascular Floor July 2004

Diltiazem, Children's Hospital Boston, Nursing Policy and Procedure, Cardiovascular Floor
October 2004

Adderall use in Children and Adolescents. Pediatric Views, Children's Hospital Boston,
June 2005

Selected Abstracts

1. **Alexander, ME**, Berul, CI, Fortescue, EB, Blume, E, Brown, D, Triedman, JK Walsh, EP Cecchin, F. Who Is Eligible for Cardiac Resynchronization Therapy in Pediatric Cardiology? *PACE*, 2004, 27. 4(II), NASPE 2004.
2. Rabideau, N, Berul, C, Cecchin, F, Rhodes, J, Curran, T, **Alexander, ME**. Significant Events and Interventions During Exercise Testing in a Pediatric and Congenital Heart Disease Practice. American Academy of Pediatrics, October 09, 2004, San Francisco, CA
3. Bershader, R, Cecchin, F, Berul, CI, Triedman, JK, Walsh, EP, Bevilacqua, L, Alexander, ME. Exercise testing for risk assessment in pediatric Wolff-Parkinson White. Heart Rhythm Society, May, 2007. Denver, CO.

Personal:

Married,
Lori Wroble, MD
Chief, Obstetric Service, Harvard Vanguard Medical Associates at Newton Wellesley Hospital

3 Children
17, 19, 23 years old

Community Activities

Boy Scouts of America
1994-2005: Troop 6 Brookline
Committee Member
Merit Badge Counselor
Boston Area Council: Eagle Scout Board of Review Member
Eagle Scout
1994-2001: Referee Brookline Dolphin's Swim Team

Avocations

Swimming
Division III All-American
Masters Swimming, multiple top 10 national rankings.
Cycling
Cooking