## CURRICULUM VITAE KENNETH P. BOTWIN, M.D.

**OFFICE ADDRESS** The Florida Spine Institute

2250 Drew Street Clearwater, FL 33765

(727) 797-7463 FAX (727) 669-6890

**DATE OF BIRTH** February 27, 1963 **PLACE OF BIRTH** New York, New York

#### **CERTIFICATION**

Diplomat - American Board of Physical Medicine & Rehabilitation - 1994 Diplomat - American Board of Electrodiagnostic Medicine - April, 1995 Recertified 9/2005

State of Florida - Workers Compensation Certification - October, 1995 American Board of Medical Specialties – Certified in Sub-Specialty of Pain Medicine— September 2000

### **EDUCATION AND PROFESSIONAL TRAINING**

1992 - June 1993	Chief Resident, Physical Medicine & Rehabilitation
	Boston University Hospitals Program, Boston, MA

1990 - 1992	Physical Medicine & Rehabilitation Residency
	Boston University Hospitals Program, Boston, MA

July 1989 -	Internship - Internal Medicine
June 1990	Lenox Hill Hospital, New York, NY

June 1989 Sackler School of Medicine, New York, NY

Doctor of Medicine

Aug 1981 - Tulane University, New Orleans, LA

May 1985 Bachelor of Science, Biology

### **PRACTICE EXPERIENCE**

August 1, 1993 - Interventional Spine Physiatrist
Present PM&R Fellowship Director

The Florida Spine Institute, Clearwater, FL

### **POSITIONS HELD**

**Reviewer for:** Pain Physician Journal, Archives for Physical Medical and Rehabilitation,

American Journal Physical Medicine and Rehabilitation

Editorial Advisory Board: Pain Physician Journal

**Curriculum Vitae** 

Kenneth P. Botwin, M.D.

### **HOSPITAL STAFF PRIVILEGES**

Morton Plant Mease Hospitals, Clearwater, FL HealthSouth Rehab Hospital, Largo, FL Largo Medical Center, Largo, FL Sun Coast Hospital - Largo, FL

### PROFESSIONAL SOCIETIES & MEMBERSHIPS & OFFICES HELD

American Academy of Physical Medicine and Rehabilitation
Member Re-certification Examination Committee, AAPMR
American Academy of Electrodiagnostic Medicine
(Member Position Statements Committee)
American College of Sports Medicine - Member
American Congress of Rehabilitation Medicine
American Medical Association
American Osteopathic Academy of Sports Medicine
Florida Medical Association
Florida Academy Pain Management (Treasurer 6/2000)
Florida Society of Physical Medicine and Rehabilitation
International Spinal Injection Society
North American Spine Society
Physiatric Association of Spine, Sports & Occupational Rehab.
Pinellas County Medical Society

### **ADDITIONAL MEDICAL TRAINING**

2003	Addressing Medical Issues
2003	Electromyography & Electroencephalography in Clinical Practice
2003	Advanced Cardiac Life Support
2002	Industrial Medicine and Acute Musculoskeletal Rehabilitation and related focused review
2002	Spinal Cord Injury Medicine
September 2001	End of Life Care Largo FL
June/July 2001	Florida Academy of Pain Medicine Annual Conference Tampa FL
November 2000	PM&R 62 <sup>nd</sup> Annual Assembly San Francisco, CA

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May, 2000 Florida Academy of Pain Management Annual Meeting Ft. Lauderdale, FL October, 1999 PM&R Annual 61<sup>st</sup> Assembly, Washington, DC September, 1999 International Spinal Injection Society Annual Meeting Las Vegas, NV December 1998 1998 Advanced Team Physician Course, American Orthopaedic Society for Sports Medicine, Lake Buena Vista, FL October 1998 EMG in Traumatic Conditions, Young, Old and Weak, Controversies, American Association of Electrodiagnostic Medicine, Orlando, FL. December, 1997 Interventional Pain Management Techniques Workshop, Maricopa Health Systems, Ft. Lauderdale, FL. November, 1997 ISIS Cervical Thoracic Workshop, International Spinal Injection Society, Daly City, CA Aggressive Rehabilitation and Interventional Physiatry in the Management of September 1997 Low Back Pain and Spasticity, Physiatrist Convention, Puerto Rico January, 1997 Hands On Cadaveric Workshop on Lumbar Injection Techniques, ISIS, Orlando, FL. November 1995 American Academy of Physical Medicine & Rehabilitation 57th Annual Assembly, Orlando, Fl. October 1995 North American Spine Society Annual Meeting Washington, D.C. March 1995 Electromyography in Clinical Practice Mayo Foundation, Jacksonville, FL February 1995 Team Physician Course - Part II sponsored by American College of Sports Medicine, Tampa, FL American Academy of Electrodiagnostic Medicine September 1994 Annual Assembly, San Francisco, CA **April** 1994 New York University Review Course in Physical Medicine and Rehabilitation, New York, NY March 1994 "Team Approach to Sports Medicine" sponsored by Center for Sports Medicine Imaging, Tampa, FL

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October 1993	American Academy of Electrodiagnostic Medicine Annual Assembly, New Orleans, LA
October 1993	American Academy of Physical Medicine and Rehabilitation, 55th Annual Assembly, Miami, FL
November 1992	American Academy of Physical Medicine and Rehabilitation, 54th Annual Assembly, San Francisco, CA
1991 - June 1993	Associate Staff, Department of Medicine, Baintree Hospital, Baintree, MA
February 1992	American College of Sports Medicine Team Physicians Course Part I, Palm Springs, CA
November 1991	Electromyography and Clinical Neurophysiology, Harvard Medical School, Boston, MA
October 1991	American Academy of Physical Medicine and Rehabilitation 53rd Annual Assembly, Washington, D.C.
February 1991	Prosthetics: A comprehensive course, Kessler Institute of Rehabilitation, West Orange, NJ

### **PUBLICATIONS**

"Ultrasound-Guided Trigger Point Injections in the Cervicothoracic Musculature: A New and Unreported Technique."

**Kenneth P. Botwin, M.D.,** Kavita Sharma, D.O., Romeo Saliba, M.D., Bharat C. Patel, M.D. Pain Physician 2008; 11:6: 885-889

"Electromyographically Guided Trigger Point Injections in the Cervicothoracic Musculature of Obese Patients: A New and Unreported Technique" **Botwin, KP,** Patel, BC. Pain Physician 2007; 10:753-756.

"Fluoroscopically Guided Caudal Epidural Steroid Injections in Degenerative Lumbar Spinal Stenosis". **Botwin KP,** Brown, Lee Ann, Fishman, M., Rao, S. Pain Physician 2007; 10: 547-558.

"Adverse Effects of Fluoroscopically Guided Anterlaminar Thoracic Epidural Steroid Injections". **Botwin, KP,** Baskin M, Rao S. Am J Phys Med Rehabil vol 84 No 1 pgs 14-23, 2006

"Epidural Steroid Injections in the Treatment of Symptomatic Lumbar Spinal Stenosis Associated with Epidural Lipomatosis". **Botwin Kenneth P**, Sakalkale DP. Am J Phys Med Rehabil 2004; 83: 926-930.

Curriculum Vitae Kenneth P. Botwin, M.D. "Epidurography Contrast Patterns with fluoroscopic Guided Lumbar Transforaminal Epidural Injections: A Prospective Evaluation". **Kenneth Botwin, MD,** James Natalicchio, MD, Lee Ann Brown, DO. Pain Physician 2004;7:211-215

"Candida Spondylodiscitis: An Unusual Case of Thoracolumbar Pain with Review of Imaging Findings and Description of the Clinical Condition". Francisco M. Torres-Ramos, MD, **Kenneth P. Botwin, MD,** Chunilal P. Shah, MD Pain Physician 2004; 7: 287-290.

"Fluoroscopic Guided Lumbar Interlaminar Epidural Injections: A Prospective Evaluation of Epidurography Contrast Patterns and Anatomical Review of the Epidural Space". **Kenneth P. Botwin**, MD, James Natalicchio, MD and Ashraf Hanna, MD. Pain Physician, 2004; 7:77-80.

"Radiation Exposure to the Spinal Interventionalist Performing Lumbar Discography" **Kenneth P. Botwin, MD**, Glenn S. Fuoco, DO, Francisco M. Torres, MD, Robert D, Gruber, DO, Constantine C. Bouchlas, MD, Ramon Castellanos, MD, Sanjiv Rao, BA Pain Physician 2003; 6:295-300.

"Epidemiology of Spine Tumors Presenting to Musculoskeletal Physiatrists". Curtis W. Slipman, MD, Rajeev K. Patel, MD, **Kenneth Botwin, MD,** Christopher Huston, MD, Lei Zhang, MD, PhD, David Lenrow, MD, Cynthia Garvan, PhD. Arch Phys Med Rehabil 2003: 84; 492-5.

"Complications of Fluoroscopically Guided Interlaminar Cervical Epidural Injections". **Kenneth P. Botwin, MD,** Ramon Castellanos, MD, Sanjiv Rao, BA, Ashraf Hanna, MD, Francisco M. Torres-Ramos, MD, Robert D. Gruber, DO, Constantine G. Bouchlas, MD, Glenn S. Fuoco, DO. Arch Phys Med Rehabil 2003; 84: 627-633.

"Fluoroscopically Guided Lumbar Transforaminal Epidural Steroid Injections in Degenerative Lumbar Stenosis", An Outcome Study. **Kenneth P. Botwin, MD,** Robert D. Gruber, DO, Constantine G. Bouchlas, MD, Francisco M. Torres-Ramos, MD, Joseph T. Sanelli, DO, Eric D. Freeman, DO, Warren K. Slaten, MD, Sanjiv Rao, BA. Am. J. Phys. Med. Rehabil. 2002; 81:898-905.

"Position Paper of the Florida Academy of pain Medicine on Regenerative Injection Therapy: Effectiveness and Appropriate Usage". Felix S. Linetsky, MD, Kenneth Botwin, MD, et al. The Pain Clinic, June 2002 pgs 38-45.

"Complications of Fluoroscopically-Guided Transforaminal Lumbar Epidural Injections" **Kenneth P. Botwin MD,** R. D.Gruber, DO, C.G. Bouchlas, MD, F. M. Torres, MD, T. Freeman, DO, W. Slaten, DO. Arch Phys Med Rehabil 2000; 81: 1045-50.

Radiation Exposure to the Spinal Interventionalist performing Transforaminal Epidural Steriod Injections (TFESI's) **Kenneth P. Botwin, M.D.,** Santhosh Thomas, D.O., Francisco M. Torres, M.D., Constantine Bouchlas, M.D., Robert D. Gruber, D.O., Joshua Rittenberg, M.D., Sanjiv Rao, B.A. Arch Phys Med Rehabil 2002: 83: 697-701.

"The Role of Weight Bearing Flexion and Extension; Myelography I Evaluating the Intervertebral Disc: A Case Series", **Kenneth P. Botwin, M.D.,** Geoffrey Skene, D.O., Robert D. Gruber, D.O., Constantine G. Bouchlas, M.D., Francisco M. Torres, M.D. Am J Phys Med Rehabil 2001; 80: 289-295.

"Complications of Fluoroscopically-Guided Caudal Epidural Injections" **Kenneth P. Botwin MD**, Robert D. Gruber, DO, Constantine G. Bouchlas MD, Francisco M. Torres-Ramos MD, Ashraf Hanna, M.D., Joshua Rittenberg, M.D., Santhosh A.Thomas D.O. Am J Phys Med Rehabil 2001; 80: 416-424.

"Sciatic Neuropathy secondary to infiltrating intermuscular Lipoma of the Thigh" **Kenneth P. Botwin MD**, Chunilal P. Shah, M.D. Paul J. Zak, M.D, Am J Phys Med Rehabil 2001; 80: 754-758.

"Radiation Exposure to a Physician Performing Flouroscopically Guided Caudal Epidural Steroid Injections". **Kenneth P. Botwin, MD,** Eric Freeman, DO, Robert Gruber, DO, Francisco Torres-Ramos, MD, Constantine Bouchlas, MD, Joseph Sanelli, DO, Ashraf Hanna, MD. Pain Physician 2001; 4:343-348.

"Lumbosacral Radiculopathy Secondary to Metastatic Uterine Leiomyosarcoma: A Case Report ", **Kenneth P. Botwin, M.D.**, Paul J. Zak, M.D.. Spine, 2000; 25(7): 884-887

"Guidelines for Managing Patients with Spinal Cord Injury" Boston University Medical Center, Faculty Resident Guidelines. **Kenneth P. Botwin, M.D.** Revised 1992, pp29.

"Resident Orientation Manual", Boston University Medical Center. **Kenneth P. Botwin, M.D.** Revised 1992, pp 10

#### **TEXTBOOK/CHAPTER PUBLICATIONS**

"Lumbar Interlaminar Epidural Steroid Injections". **Kenneth P. Botwin, M.D.** Interventional Techniques in Chronic Spinal Pain 2007, Chapter 23; pgs 355-382

"Thoracic Interlaminar Epidural Steroid Injections", **Kenneth P. Botwin, M.D.,** Susan Vettichira, M.D. Interventional Techniques in Chronic Spinal Pain 2007 Chapter 24; pgs 383-400.

"Cervical Interlaminar Epidural Steroid Injections", **Kenneth P. Botwin, M.D.,** Robert Guirguis, D.O. Interventional Techniques in Chronic Spinal Pain 2007 Chapter 25; pgs 401-422.

"Side Effects and Complications of Injection Procedures: Anticipation and Management" **Kenneth Botwin, MD,** LeeAnn Brown, DO, Durgadas Sakalkale, MD and Robert Savarese, DO. Interventional Spine: An Algorthmic Approach, Chapter 20, published September 2007

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- "Epidural Steroid Injections", **Botwin, K.P. M.D.,** Palmissano, B. M.D. Kancherla, V. DO, Chapter 13 in "Minimally Invasive Musculoskeletal Pain Medicine", pgs 203-234, published March 2007.
- "Lumbar discography" **Botwin KP,** Gruber RD, Savarese R. Techniques in Regional Anesthesia and pain Management Vol 9 No 1 January 2005
- "Lumbar spinal stenosis: anatomy and pathogenesis". Physical Medicine and Rehabilitation Clinics of North America, 2003 (14) 1-15. **Kenneth P. Botwin, MD,** Robert D. Gruber, DO.
- "Lumbar epidural steroid injections in the patient with lumbar spinal stenosis". In Physical Medicine and Rehabilitation Clinics of North America 2003 (14), 121-141. **Kenneth P. Botwin, MD,** Robert D. Gruber, DO.
- "A 35-year-old man with severe low back pain and right leg radiation after a motor vehicle accident" In *Physical Medicine & Rehabilitation Pearls, Hanley & Belfus, Inc*, 2001 Chapter 74, 178-181. **Kenneth P. Botwin, M.D.**
- "A 50-year-old woman with low back pain radiating down both legs" In *Physical Medicine & Rehabilitation Pearls, Hanley & Belfus, Inc.*2001, Chapter 43, p 101-104. **Kenneth P. Botwin, M.D.**
- "A 39-year-old man with low back and buttock pain" In *Physical Medicine & Rehabilitation Pearls, Hanley & Belfus, Inc.* 2001, Chapter 25, p 59-63. **Kenneth P. Botwin, M.D.**
- "A 27-year-old woman with neck pain after a motor vehicle accident" In *Physical Medicine & Rehabilitation Pearls, Hanley & Belfus, Inc,* 2001, Chapter 15, p 33-36. **Kenneth P. Botwin, M.D.**
- "Radiation Safety for the Spinal Interventionalist", In *Physiatric Procedures, 2<sup>nd</sup> Edition, Hanley & Belfus,,* 2000 p 25-32. Robert D. Gruber, D.O., **Kenneth P. Botwin, M.D.,** Chunilal P. Shah, M.D.,
- "Pathophysiology of Spinal Trauma in Motor Vehicle Accidents", *Physical Medicine and Rehabilitation:* State *of the Art Reviews, Vol. 12, No. 1, February 1998*, p 39-72 Robert D.Gruber, D.O., **Kenneth P.Botwin, M.D.**, Constantine G. Bouchlas, M.D., Francisco M. Torres, M.D.

#### **PRESENTATIONS**

" Fluoroscopic Guided Caudal Epidural Injection in the Treatment of Degenerative Lumbar Spinal Stenosis"

Florida Academy of Pain Annual Meeting Gaylord Palms Resort, Orlando Florida July 31, 2005

"Lumbar Discography"

Tampa General Hospital, Tampa FL. February 24, 2005

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## "Poster 114 Adverse effects of fluoroscopically guided interlaminar thoracic epidural injections."

AAPMR Annual Meeting, Phoenix AZ, Oct 7-10/2004

# "Poster 104 an unusual case of radicular pain secondary to a mucinois cystadenoma: A case report."

AAPMR Annual Meeting, Phoenix AZ Oct 7-10/2004.

# "Outcome Transforaminal Epidural Steroid Injections in Degenerative Lumbar Spinal Stenosis"

ISIS 10<sup>th</sup> Annual Scientific Meeting, Sept 6-8,2002, Austin TX

## "Complications of Cervical Interlaminar Epidural Steroid Injections"

ISIS 10<sup>th</sup> Annual Scientific Meeting, Sept 6-8,2002, Austin TX

# "Transforaminal, Epidural Injection in Degenerative Spinal stenosis – History, Rationale, Outcome and Complications".

2002 Annual Conference, The Florida Academy of Pain Medicine, Orlando, FL. May 30-June 2, 2002.

## "Outcome of Transforaminal Epidural Injections in Degenerative Lumbar Stenosis Patients".

International Congress of Physical Medicine and Rehabilitation, The Netherlands July 2001.

# "Transforaminal Lumbar Epidural Steroid injection in the treatment of degenerative lumbar spinal stenosis"

Florida Academy of Pain Medicine, 2001 Annual Conference, June 29th, 2001.

### **Use of Selective Injections in the Elderly**

American Academy of Physical Medicine, 62<sup>nd</sup> Annual Assembly, Friday, November 3, 2000

### Pathoanatomy and Pathogenesis of Degenerative Lumbar Spinal Stenosis

American Academy of Physical Medicine, 62<sup>nd</sup> Annual Assembly, Friday, November 3, 2000

### Complications of Fluoroscopic Guided Transforaminal Lumbar Epidural Injections,

Presented at ISIS Annual Meeting, August 1999, Las Vegas, Nevada

Presented at Florida Academy Pain Management, June 2000, Ft. Lauderdale, FL.

# Acute Complications of Fluoroscopic Guided Transforaminal Lumbar Epidural Injections,

Presented at AAPM&R 61<sup>st</sup> Annual Assembly, Washington, D.C. November 1999

The Role of Weight-Bearing and Extension Myelography in Evaluating the intervertebral Disc: A Case Series".

Presented at AAPM&R 61<sup>st</sup> Annual Assembly, Washington, D.C. November, 1999

Complications of Fluoroscopically Guided Transforaminal Lumbar Epidural Injections Presented at International Society for Study of Pain "Pain Management Toward 2000: Eilat, Israel, November 1998

A Different Approach in the Diagnosis and Management of the Degenerative Lumbar Spinal Stenosis Patient, Course Moderator and Presenter, Definition and Classification of Degenerative Lumbar Spinal Stenosis, AAPMR 57<sup>th</sup> Annual Assembly, November 17, 1995, Orlando, FL

A Different Approach in the Diagnosis and Management of the Degenerative Lumbar Spinal Stenosis Patient, presented Case Studies of Lumbar Spinal Stenosis, AAPM&R 57th Annual Assembly, November 17, 1995, Orlando, Fl.

Myopathies. Boston University Medical Center, Rehabilitation Grand Rounds, January 1993

**Upper Extremity Nerve Injuries.** Boston University Medical Center, Rehabilitation Grand Rounds, January 1992

**Lumbosacral Spine: Diagnostic Imaging.** Boston University Medical Center, Rehabilitation Grand Rounds, September 1991

**Carpal Tunnel Syndrome: A Comprehensive Review.** Boston University Medical Center, Rehabilitation Grand Rounds, December 1990