

# James B. Billys, MD

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<b>Education</b>	<b>Wabash College, Indiana</b> Crawfordsville, IN	1973-1974
	<b>Bachelors of Science</b> University of Notre Dame, South Bend, Indiana	1974-1977
	<b>Doctorate of Medicine</b> Jefferson Medical College, Philadelphia, PA	1977-1981

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<b>Internship and Residency</b>	<b>General and Thoracic Surgery</b> <b>Duke University Medical Center Department of Surgery</b> <b>Raleigh-Durham, NC</b>	1981-1983
	<b>Duke University</b> <b>Durham, NC</b> <ul style="list-style-type: none"><li>• Orthopaedic Surgery</li></ul>	1983-1989
	<b>Duke University</b> <b>Durham, NC</b> <ul style="list-style-type: none"><li>• Immunology Research under the direction of Fran Wood, PhD</li></ul>	1985-1987

<b>Fellowship Training</b>	<b>Davies Medical Center</b> <b>San Francisco, CA</b> <ul style="list-style-type: none"><li>• Hand and Microvascular Reconstructive Surgery Under direction of Harry Buncke, MD</li></ul>	1990-1991
	<b>Stanford University</b> <b>Stanford, CA</b> <ul style="list-style-type: none"><li>• Spine Fellowship Under direction of Gene Carragee, MD</li></ul>	1992- 1993

<b>Board Certification &amp; Licensure</b>	<b>American Board of Orthopaedic Surgery</b>	2004-Present
	<b>American Board Of Orthopaedic Surgery</b> (Added Qualifications in Surgery of the Hand)	2002- Present
	<b>ME94682 Florida</b>	
	<b># 32634 North Carolina</b>	<i>Expires: Jan 2016</i>
	<b># H5659 Texas</b>	
	<b># G-065713 California</b>	
	<b># RHC133823 California Fluoroscopy</b>	

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<b>Career History</b>	<b>Principal Investigator at FORE (Foundation for Orthopaedic Research and Education)</b>	2005- Present
	<b>Florida Orthopaedic Institute, Tampa FL</b> Specializing in Disorders of the Spine Specializing in Hand Surgery	2005-Present
	<b>Orthopaedic Associates Medical Clinical Inc., Visalia, CA</b> Orthopaedic Surgeon	1996-2005

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<b>Hospital Privileges</b>	<b>Florida Hospital, Carrollwood, Tampa, FL</b>	2005-Present
	<b>Tampa General Hospital, Tampa FL</b>	2013-Present
	<b>Florida Orthopaedic Institute Surgery Center Tampa, FL</b>	2005-Present

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<b>Staff Appointment's</b>	<b>University of South Florida Department of Orthopedics and Sports Medicine (USF)</b> Affiliate Assistant Professor	10/2013-8/2016
	<b>Stanford University</b> Assistant Associate Professor	1993-1995

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<b>Course Faculty</b>	<b>SOLAS</b> Miami, FL	April 2014
	<b>Current Solutions in Spine Surgery</b> Hawks Cay, Duck Key, FL	April 2014
	<b>Current Solutions in Spine Surgery</b> Hawks Cay, Duck Key, FL	April 2013
	<b>Selby Spine</b> Montage Deer Valley , Utah	February 2013
	<b>Current Solutions in Spine Surgery</b> Hawks Cay, Duck Key, FL	May 2012
	<b>SAS11</b> Las Vegas, NV	April 2011
	<b>Selby Spine</b> Montage Deer Valley, UT	January 2011
	<b>Point-counter in Spine Surgery</b>	June 2011

Key West, FL

**Current Solutions in Spine Surgery** March 2011  
 Hawks Cay, Duck Key, FL

**SMISS in Las Vegas** October 2011  
 Las Vegas, NV

**Selby Spine** 2007-2010  
 Park City, UT

**AAOS** March 2010  
 New Orleans, LA

**Current Solutions in Spine Surgery** May 2010  
 Hawks Cay, Duck Key, FL

**Preservation of Motion in Spine** April 2009  
 Hawks Cay, Duck Key, FL

**Point- Counter Point Meeting** May 2008  
 Key West, FL

**Sisyphean Spinal Society 3<sup>rd</sup> Annual meeting** July 2007  
 Bermuda

**NASS** October 2004  
 Chicago, IL

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**Professional Memberships**

	<i>Member Since</i>
American Society for Surgery of the Hand	2004
American Academy of Orthopaedic Surgeons	1994
American Medical Association	1981-2005
North American Spine Society	1995
Piedmont Orthopaedic Society (DUKE)	1988
Signa Xi Research Society	1988
Hillsborough County Medical Association	2001
Florida Orthopaedic Society	2005
Duke Hand Club	1984
Phi Chi Medical Fraternity	1981

<b>Product Development</b>	<b>Posterior MIS system: Precept</b> Nuvasive	2011
	<b>L5-S1 Approach: Transacral</b> Trans1 (Baxano)	2010
	<b>ALIF</b> Spineology	2013
<b>Grand Rounds</b>	<b>University of South Florida, Tampa FL</b> Case Presentations	11/15/2013
	<b>University of South Florida, Tampa FL</b> Case Presentations	09/20/2013
<b>Grants Received</b>	<b>National Institute of Health Training Grant</b>	1985-1987
	<b>Orthopaedic Research and Education Foundation Grant</b>	1985-1986

## Presentations

### **Strategies on Minimally Invasive Reconstruction of the Anterior Column; Sagittal Balance;**

J.B.Billys MD, AE Castellvi, MD, SOLAS meeting, Miami, FL April 2014

**Anterior vs. Posterior Column Reconstruction:** J.B. Billys, MD, Current Solutions of Spine Surgery 9<sup>th</sup> annual Conference, Hawks Cay, Duck Key, FL, April 5, 2014

**Biomechanics of Intergrated Cervical Cages,** A.E. Castellvi, M.D., B. Santoni, PhD, A. Nayak, J. Billys, MD, MS: Current Solutions in Spine Surgery 9th Annual Conference. Hawks Cay, Duck Key, FL, May 2, 2013

**Failure of Posterior Dynamic Stabilization in the Lumbar Spine:** A.E. Castellvi M.D., D.H.Warren RN, J. Billys, MD, Current Solutions in Spine Surgery 9th Annual Conference. Hawks Cay, Duck Key, FL, May 4, 2013

### **Hybrid Cervical Procedure: Anterior Cervical Discectomy Fusion with Total Disc Replacement;** J Billys MD

Current Solutions in Spine Surgery. Duck Key, FL. May 1-4, 2012

### **Intraoperative Neuromonitoring,** J Billys MD

Current Solutions in Spine Surgery. Duck Key, FL. May 1-4, 2012

### **Correction Deformity Surgery with XLIF,** J Billys MD,

Current Solutions in Spine Surgery. Duck Key, FL. May 1-4, 2012

### **Hybrid Lumbar Procedure: Anterior Lumbar Interbody Fusion with Total Disc**

**Replacement,** J. Billys MD, Current Solutions in Spine Surgery. Duck Key, FL. May 1-4, 2012

**Kinematic comparison of lateral plate vs. pedicle screw construct in lumbar spine instrumented with lateral cage at two levels.** Nayak, Cabezas, Santoni, Billys, Castellvi. Podium presentation 11/4/2011. NASS, November 2011. Chicago, Illinois.

**Indirect Decompression of Lumbar Spinal Stenosis with Transpoas Anterior Lateral Interbody PEEK cages and Percutaneous Posterior Spine Instrumentation,** A.E. Castellvi, MD, R, Murtagh MD, G. Marulanda MD, B. Santoni PhD, A. Nayak MS, J. Billys MD, Presented at SMISS in Las Vegas, October 23, 2011.

**Cadaveric Radiographic Analysis of Indirect Spine Decompression: Comparison of Lateral Plating vs. Pedicle Screws,** G. Marulanda, M.D., A.E. Castellvi, M.D., A. Nayak, MS, B Santoni, PhD, R Murtagh, M.D., J Billys, M.D. Presented at IMAST (International Meeting on Advanced Spine Technologies), Copenhagen, Denmark July 14, 2011 \* (nominated for Whitecloud Award Best Science Paper)

**Lumbar spinal canal and foraminal volume changes due to indirect decompression with comparison to lateral cage positions: A radiographic Study.** Marulanda, Castellvi, Nayak, Santoni, Billys, Murtagh. E-poster at IMAST- July 13-16, 2011. Copenhagen, Denmark

**Biomechanical Evaluation of XLIF with Pedicle Screws vs. Lateral Plate construct;** A.E. Castellvi M.D., R Murtagh M.D., J Billys, M.D. Presented at Point- Counter Point Meeting in Key West, June 2011.

**Functional Outcomes following the Total Facet Arthroplasty System (TFAS) in the Treatment of Deg Lumbar Spinal Stenosis.** Heirlmeier, Webb, J. Billys. Oral presentation ISASS April 29, 2011. Las Vegas, Nevada.

**Cadaveric Radiographic Analysis of Indirect Spine Decompression.** Castellvi, Murtagh, Marulanda, Billys, Nayak, Santoni. Oral presentation ISASS April 28, 2011. Las Vegas, Nevada.

**Indirect Decompression of Lumbar Spinal Stenosis with Transpoas Anterior Lateral Interbody PEEK Cages and Percutaneous Posterior Spine Instrumentation.** Castellvi, Murtagh, Marulanda, Billys, Nayak, Santoni. Oral presentation ISASS April 28, 2011. Las Vegas, Nevada.

**A novel minimally invasive technique to avoid injury during the implantation of Trans1 lumbar device .** J Billys, K Bunton, J Grieco, AE Castellvi. Oral poster- 4/28/2011. ISASS11, Las Vegas, Nevada.

**Biomechanics of lateral plate vs. pedicle screw construct in lumbar spine instrumented with two level XLIF®.** Nayak, Cabezas, Santoni, Billys, Castellvi. Podium presentation at SOLAS April 1, 2011. Las Vegas, Nevada.

**Indirect Decompression of Lumbar Spinal Stenosis with Transpoas Anterior Lateral Interbody PEEK Cages and Perc Posterior Spine Instrumentation.** Castellvi, Murtagh,

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Marulanda, Billys, Nayak, Santoni. Podium presentation at SOLAS April 1, 2011. Las Vegas, Nevada.

**Indirect Decompression:** A Castellvi, MD, R. Murtagh MD, A. Nayak MS, J. Billys, MD, D. Clabeaux RN, presented at Current Solutions in Spine Surgery at Duck Key, FL, April 1, 2011

**Biomechanics of Lateral Plate VS. Pedicle Screw + Rod System in Lumbar Spine Instrumented with Two Level XLIF Cages;** B. Santoni PhD, A. Nayak, MS, A Cabezas, S. Gutierrez PhD, G. Marulanda, MD, J. Billy, MD, A Castellvi, MD presented at Current Solutions in Spine Surgery, Duck Key. FL March 31, 2011

**Antithrombotic Therapy in Spine Surgery:** C. Proconiar ARNP, A. Castellvi MD, J. Billys, MD. J. Small, MD. D. Clabeaux RN: presented at Current Solutions in Spine Surgery, Duck Key, FL March 31, 2011

**Kyphoplasty for fragility fractures of the spine: The need for intraoperative biopsy.** Marulanda GA, Andrews SA, Bunton K, Weinstein MA, Small JM, Castellvi AE, Billys J. Paper #67. Presented at the 2010 Annual Meeting of the American Academy of Orthopaedic Surgeons. March 9-13, 2010. New Orleans, Louisiana

**Lateral Lumbar Interbody Fusion: NuVasive System**  
Preservation of Motion in the Spine Duck Key, Florida April 1-4, 2009

**Minimally Invasive Adult Degenerative Scoliosis Surgery with Trans1 and XLIF. J. Billys,** Selby Spine, Salt Lake City, Utah. February 2009

**Minimally Invasive Surgical Techniques: , J. Billys Case Presentation**  
Selby Spine, Salt Lake City, Utah. February 2009

**Fusion: The Gold Standard**  
**Nuvasive Minimally Invasive Surgery Course, J. Billys**  
Key West, Florida. May 2008

**Combination Hybrid Two Level Interbody Fusion**  
J. Billys, Selby Spine, Salt Lake City, Utah. February 2008

**Current Update: BMP in Anterior Cervical Spine Fusion**  
J. Billys Selby Spine, Salt Lake City, Utah. February 2008

**Occipital Nerve Stimulation for Intractable Occipital Neuralgia**  
J. Billys, Selby Spine, Salt Lake City, Utah. February 2007

**Minimally Invasive Lumbar Surgery**  
J. Billys, Selby Spine, Salt Lake City, Utah. February 2007

**MIS for the Spine Sisyphean Spinal Society 3rd Annual Meeting,**  
J. Billys, Southampton, Bermuda. July 2007

**Cervicogenic Headaches North American Spine Society Annual Meeting, J. Billys, Chicago, Illinois. October 2004**

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## Poster Presentations

**Clinical Outcomes of Patients with Degenerative Disc Disease Multilevel Hybrid Technique Combining Lumbar Total Disc Replacement and Arthrodesis:** G. Marulanda, MD, R. Murtagh, MD, A.E.Castellvi, MD, J.B. Billys MD, - poster presentation at ISASS13 Vancouver BC, Canada, April 3-5, 2013

**Lumbar Fusion: One Year Clinical and Radiographic Outcomes Utilizing the Axial Lumbar Interbody Fusion Device (AxiaLif):** C.R. James MD, K.L.Bunton, E.M.Kisaddon, A.E.Castellvi, MD, J.B. Billys, MD- poster presentation at ISASS13 Vancouver BC, Canada, April 3-5, 2013

**A Cadaveric Radiographic Analysis of Indirect Spine Decompression: E-Poster,** G. Marulanda MD, A. Nayak MS,B.Santoni PhD, R Murtagh MD, J Billys, MD. A. Castellvi MD, presented at NASS, Chicago November 4, 2011

**A Novel Technique to Quantify Cage Translation as a Function of Loading in a Lumbar Spine Instrumented at two levels with Lateral inter-body Cages in Lateral Plate Fusion Construct: E-Poster,** A.E. Castellvi M.D., A Nayak, MS, B.Santoni, PhD, A. Cabezas, BS, S Gutierrez,PhD., J Billys, M.D. to be presented SMISS, Las Vegas, October 21-23, 2011

**Biomechanics of Lateral Screw Plate vs. Pedicle Screw Construct in Lumbar Spine Instrumented with two level XLIF - E-Poster;** A Nayak, MS, B Santoni,PhD, A Cabezas, BS, S Gutierrez, PhD, J Billys, MD, A.E. Castellvi M.D.; for presentation at IMAST (International Meeting on Advanced Spine Technologies), Copenhagen, Denmark, July 2011

**A Novel Technique to Quantify Cage Translation as a Function of Loading in a Lumbar Spine Instrumented at two levels with Lateral inter-body Cages in Lateral Plate Fusion Construct: E-Poster,** A.E. Castellvi M.D., A Nayak, MS, B.Santoni, PhD, A. Cabezas, BS, S Gutierrez,PhD., J Billys, M.D. to be presented at IMAST (International Meeting on Advanced Spine Technologies), Copenhagen, Denmark, July 2011

**Analysis of Biomechanical Stability and Cage Motion in a Lumbar Spine Instrumented at Two Levels with Lateral Inter-body Cages with Lateral Plate Fusion Construct;** R. Burris M.D., A Nayak, MS, J Billys, M.D., B Santoni, PhD, A.E. Castellvi M.D. Presented at ISASS11 (International Society for the Advancement of Spine Surgery), Las Vegas, NV, April 2011

**A Novel Minimally Invasive Technique to Avoid Injury During the Implantation of the Trans1 Axial Lumbar Interbody Fusion Device- E-Poster,** K. Bunton, J Grieco, MS, A.E. Castellvi M.D., J. Billys, M.D. Presented at ISASS11 (International Society for the Advancement of Spine Surgery), Las Vegas, NV, April 2011

**“The Clinical Use of MRI in Pyogenic Vertebral Osteomyelitis.”** Carragee, E.J.; Billys, James; Tanner, Cary; van der Vlugt, Theresa; Vittum, Daniel. 1997 AAOS Annual Meeting Poster Exhibit.

## Clinical Research Activities

★ Dr. Billys is a Principal Investigator (or sub-investigator) for many of these studies through **FORE: Foundation for Orthopaedic Research and Education**.

**Spinal cord stimulator: Retrograde Occipital C1 leads, technique and clinical outcomes; a retrospective review.** PI: J.B.Billys IRB approval in progress.

**Hybrid - TDR with fusion; A retrospective review of radiographic and clinical outcomes.** PI: J.B.Billys MD, IRB approval in progress.

**Clinical Results of Anterior Cervical Discectomy and Fusion with Integrated Cage and Screw Interbody Devices;** Investigator Initiated Study: PI: J.B. Billys

The primary objective is to compare clinic results of ACDF with integrated cage and screw implants to previous outcomes with other devices. IRB approved February 2014

**Accuracy, Safety, & Intraoperative Radiation in Robot Guided Percutaneous Screw Placement RGPSP-001;** Investigator Initiated Study: To determine the accuracy of screw placement using the Mazor robot and determine a margin-of-error when comparing the preoperative planned screw trajectory with the actual placement of the screw as measured on a postoperative CT scan. PI: James Billys, MD  
IRB approved: September 20, 2013

**Freedom Lumbar Disc Clinical Study IDE;** This FDA approved IDE study is a prospective, multi-centered, randomized, unmasked, longitudinal evaluation of the safety and efficacy of the Freedom Lumbar Disc (FLD) total disc replacement device. IRB approved June 19, 2012. Enrolling at present. Dr. Billys is PI.

**Spondylolisthesis Treated with an iO-Flex® System enabled Decompression (STRiDE)**  
Study Sponsor: Baxano, Inc. IRB approved 7/2012, closed 5/14/2014.

**Acadia Facet Replacement Device Clinical IDE**

The Investigational Plan for the Evaluation of the Acadia Facet Replacement System  
Multi-center clinical trial at up to 30 Investigational Sites  
IRB approved 9/25/2009. Currently enrolling.

### **SCORE**

Study of Curette use for obtaining restoration of Vertebral Body Anatomy in Balloon Kyphoplasty. Sponsor Kyphon. IRB Approved March 2009 Closed 2011

**Aesculap ActivL Lumbar Artificial Disc Clinical IDE**

The study proposed is a prospective, randomized, single-masked, controlled, multi-center clinical trial consisting of an estimated 414 subjects with single-level DDD of the lumbar spine (L4/L5, or L5/S1) who have failed to improve with conservative treatment for at least six months prior to enrollment. After enrollment, subjects will be randomized in a 2:1 ratio to either the Activ-L Disc (investigational device) or the control (Charité or ProDisc-L). Closed to enrollment.

IRB Approval March 2009.

**Discover Artificial Cervical Disc Clinical IDE**

A Multi-Center, Prospective, Randomized Controlled Trial Comparing Cervical Arthroplasty to Anterior Cervical Discectomy and Fusion (ACDF) for the Treatment of Cervical Degenerative Disc Disease (DDD) Sponsor: DePuy Spine

IRB approval June 2008. Enrollment closed March 2011.

**EON Mini Paddle Spinal Cord Stimulator**

St. Jude Medical, IRB approval 9/15/2009. Completed study 2012

**Kinegraph VMA study.** Orthokinematics: study of motion in lumbar spine using fluoroscopy

IRB approved 1/19/2010 Completed November 2012

**“A Prospective Randomized Clinical Investigation of the SECURE™-C Cervical Artificial Disc – A Pivotal Study”** Clinical IDE Study Sponsor: Globus Medical, Inc. IRB approved 7/26/2005 Closed 2013 A Post Market evaluation to follow the Secure C patients approved 12/18/2012, and is ongoing.

**“A Prospective, Randomized, Controlled Pivotal Clinical Investigation of DIAM™ Spinal Stabilization System in Patients with Lumbar Degenerative Disc Disease”**

**Clinical IDE** Study Sponsor: Medtronic Sofamor Danek USA, INC IRB approved 2/6/2007, closed to enrollment at present. PI Dr. Billys

**“A Prospective, Multi-Center Clinical Study to Assess the Safety and Effectiveness of the Impliant TOPS System”** Study Sponsor: Impliant IRB approval 4/24/2007 Closed 2010

**KAVIAR - Kyphoplasty and Vertebroplasty in the Augmentation and Restoration of Vertebral Body Compression Fractures:** Study Sponsor: Medtronic – Medtronic/Kyphon IRB approval 10/24/2006. Completed 2010

Peripheral Nerve Stimulator / HAR- BMP epidural cyst (Case Report)

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## Publications

**A Cadaveric Radiographic Analysis on the Effect of Extreme Lateral Interbody Fusion Cage Placement with Supplementary Internal Fixation on Indirect Spine Decompression.**, Marulanda GA, Nayak A, Murtagh R, Santoni BG, Billys JB, Castellvi AE. J Spinal Disord Tech. 2013 Nov 5. PMID: 23563336

**Biomechanics of lateral plate and pedicle screw constructs in lumbar spines instrumented at two levels with laterally placed interbody cages.**

Nayak AN, Gutierrez S, Billys JB, Santoni BG, Castellvi AE.

Spine J. 2013 Oct;13(10):1331-8. doi: 10.1016/j.spinee.2013.03.048. Epub 2013 May 16. PMID: 23685215

**Kinematic Comparison of Lateral Plate Vs. Pedicle Screw construct in Lumbar Spine Instrumented with Lateral Cage at Two Levels ;** A.E Castellvi, MD, B. Santoni PhD., A. Nayak, MS. A. Cabezas, G. Marulanda MD, J. Billys, MD, The Spine Journal 11 (2011) Vol. 11 No. 10s pg. 97S

**Cadaveric Radiographic Analysis of Indirect Spine Decompression; Comparison of Lateral Plating vs. Pedicle Screws;** G. Marulanda, M.D. A Nayak, MS, R Murtagh, M.D., J Billys, M.D., A.E. Castellvi, M.D.- nominated for the Whitecloud Award for Best Clinical Paper (IMAST meeting July 2011) The Spine Journal 11 (2011) Vol. 11 No. 10s pg. 163S.

**Hybrid dynamic stabilization with posterior spinal fusion in the lumbar spine.:** W.Hudson,MD, E Gee,MD, JB Billys,MD, AE Castellvi MD: SAS Journal 5, p.36-43, June 2011. doi:10.1016/j.esas.2011.01.003

**Billys, James B.: Orthopaedic Knowledge Update – Spine- Treatment of Failed Back Syndrome 2005,** Billys, James B.

**Improved Salvage of Complicated Microvascular Transplants Monitored with Quantitative Fluorometry,” Plastic and Reconstructive Surgery,** Billys, J.; Whitney, T.M.; Lineaweaver, W.C.; Siko, P.; Buncke, G.M.; Alpert, B.S.; Oliva, A.; Buncke, H.J.: July 1992.

**“Lower Extremity Replantation Clinics,”** Gayle, Billys, Buncke, et.al.: Plastic Surgery, Vol. 18, No. 3, July 1991.

**“Talar Impingement by the Anterior Tibiofibular Ligament – A Cause of Chronic Ankle Pain Following Inversion Sprain,** Billys, J.; Gates, H.; Bassett, F.: ” Journal of Bone and Joint Surgery, Vol. 72A, No.1, pp. 55-59, January 1990.

**“A Simple Approach to the Ankle,”** Billys, J.; Gates, H; Bassett,F: American Journal of Sports Medicine, in press, 1990.

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**Research Links** [www.clinicaltrials.gov](http://www.clinicaltrials.gov)

[www.floridaortho.com](http://www.floridaortho.com)

[www.foreonline.org](http://www.foreonline.org)

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**Language** English

Spanish

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