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10 Spine Surgeon Investigators of Artificial Discs Featured

Written by [Laura Miller](#) | November 02, 2011

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Here are 10 spine surgeons who have been involved in clinical trials for cervical and lumbar artificial discs.

Richard D. Guyer, MD (Texas Back Institute, Plano). Dr. Guyer was a leader in the clinical trials for the Charite artificial disc and performed the third procedure in the country using the device. He is currently a co-director of the Center for Disc Replacement at Texas Back Institute, along with Scott Blumenthal, MD, and Jack Zigler, MD. Dr. Guyer's additional leadership experience includes director of the Texas Back Institute Spine Fellowship Program and founder and chairman of the board of the Texas Back Institute Research Foundation. He has served as an editorial board member for *Spine*, *The Spine Journal* and the *Journal of the American Academy of Orthopaedic Surgeons*. During his career, Dr. Guyer has traveled internationally to teach surgical technique and lecture on the results of lumbar and cervical artificial disc replacement. Dr. Guyer earned his medical degree at the University of Pennsylvania School of Medicine in Philadelphia, where he also completed his residency. His additional training includes spine fellowships at Case Western Reserve University in Cleveland and under Leon Wiltse, MD, in Long Beach, Calif.

Jason M. Highsmith, MD (Trident Health System, Charleston, S.C.). Dr. Highsmith was a principle investigator for the Medtronic Prestige-ST cervical disc and currently serves as an investigator of the Globus Medical Secure-C artificial disc for an FDA trial. He was among the first physicians in the country trained in the X-Stop interspinous process for treating lumbar stenosis. Dr. Highsmith is in private practice in Charleston and serves as the medical and technology advisor to Spine Universe. In his clinical practice, Dr. Highsmith focuses on neurosurgery, back and neck pain and motion preservation. Dr. Highsmith earned his medical degree at the Medical College of Virginia and completed a fellowship in complex spine surgery at Emory University in Atlanta. His additional experience includes a medical mission trip to Belize where he assisted a native neurosurgeon in caring for adolescent patients with hydrocephalus and spina bifida.

J. Patrick Johnson, MD (Cedars-Sinai Medical Center, Los Angeles). Dr. Johnson is a principle investigator for the Bryan Cervical Disc Prosthesis clinical trial. He previously served as the director of the Cedars-Sinai Institute for Spinal Disorders, where he established the combined neurosurgery and orthopedic fellowship program. Now, he serves as a neurosurgeon within the Cedars-Sinai Spine Center. His research interests include biologic stem cell repair of spinal cord injuries, and he has published several articles in professional journals. During his career, Dr. Johnson has served as director of the California Association of Neurosurgeons and is a member of the North American Spine Society. Dr. Johnson earned his medical degree from the Oregon Health Sciences University in Portland and completed his neurosurgical residency at the University of California in Los Angeles. His additional training includes a fellowship in spine surgery at the University of Tennessee in Nashville and a fellowship at the National Hospital for Neurology and Neurosurgery in London, England.

Armen Khachatryan, MD (Center of Orthopedic and Rehabilitation Excellence, West Jordan, Utah). Dr. Khachatryan has been a clinical investigator for several FDA trials, including the trial for the Prestige artificial cervical disc replacement procedure. He was among the first spine surgeons in Utah to implant artificial discs in both the cervical and lumbar spine. During his career, Dr. Khachatryan has had a professional interest in minimally invasive surgery, motion preservation and non-fusion technology. He is a member of the North American Spine Society. Dr. Khachatryan earned his medical degree at Yale University School of Medicine in New Haven, Conn., and completed his orthopedic surgery residency at the University of Utah in Salt Lake City. His additional training includes a spine surgery fellowship at the University of Utah and Shriners' Hospital for Children in Salt Lake City.

Scott Leary, MD (Alvarado Hospital Medical Center, San Diego). Dr. Leary participated in the first clinical trial for the Charite artificial disc, and he will be serving as the principal investigator for the upcoming FDA clinical trial for the next-generation lumbar artificial disc replacement. In his practice, Dr. Leary has a professional interest in minimally invasive spine surgery, endoscopic spine surgery, artificial disc replacement and complex spinal reconstruction. During his career Dr. Leary has published several articles in peer-review journals on spine surgery topics and maintains a focus on research and innovation. Dr. Leary earned his medical degree at Washington University in St. Louis and completed his residency in neurosurgery at Los Angeles County — University of Southern California Medical Center in Los Angeles. His additional training includes a fellowship in stereotactic radiosurgery under Michael Apuzzo, MD, and a complex spine surgery fellowship under John Regan, MD, in Los Angeles.

Paul C. McAfee, MD (St. Joseph Medical Center, Towson, Md.). Dr. McAfee was among the first spine surgeons in the country to perform cervical disc replacement and was an investigator in the Charite artificial disc replacement trial. In addition to his clinical work, he also invented a cervical disc replacement prosthesis and spinal rods for scoliosis. He was also among the first spine surgeons to perform anterior endoscopic spinal instrumentation and previously served as chief of spine surgery at Johns Hopkins Hospital. He is currently the director of the Scoliosis and

Spine Center at St. Joseph's and has been director of the Maryland Spinal Reconstruction Fellowship Program. Dr. McAfee earned his medical degree at State University of New York Upstate Medical Center in Syracuse, N.Y., where he also completed his residency in orthopedic surgery. His additional training includes a spine reconstructive surgery fellowship at Case Western Reserve University in Cleveland.

Pablo Pazmino, MD (Spine Cal, Santa Monica, Calif.). Dr. Pazmino is the principle investigator for the Discover Cervical Disc Arthroplasty from DePuy, which is only one of three artificial disc replacement studies he has participated in during his career. He is the founder of The Spinecal Institute and is a member of several professional societies, including the North American Spine Society, American Academy of Orthopaedic Surgeons and Spine Arthroplasty Society. In addition to his clinical work, Dr. Pazmino has authored two books and has been involved with the organization of a medical mission trip to Ecuador. Dr. Pazmino earned his medical degree from the University of Michigan in Ann Arbor and completed his orthopedic surgery residency at the Detroit Medical Center. His additional training includes the AO Spinal Surgical Fellowship, which he completed in Brazil, and a second combined orthopedic-neurosurgical spine fellowship program completed in Beverly Hills, Calif.

Allan T. Villavicencio, MD (Boulder Neurosurgical Associates, Boulder, Colo.). Dr. Villavicencio is the principle investigator in several clinical trials for spine devices, including the Wallis System from Zimmer and Maverick artificial disc from Medtronic. He is a senior practicing partner at Boulder Neurosurgical Associates and has a professional interest in complex spinal reconstruction surgery. In addition to his clinical practice, Dr. Villavicencio is the director of research and development for BNA, director of neurosurgery at Boulder (Colo.) Community and Longmont United Hospitals and the director of surgery at The Minimally Invasive Spine Institute in Colorado, which he founded. Dr. Villavicencio is also the founder and program chairman for a regional neurosurgical symposium. During his career, he has presented at several national meetings and is a member of the North American Spine Society and American Association of Neurological Surgeons, among others. Dr. Villavicencio earned his medical degree at Harvard Medical School in Boston and completed his neurosurgical residency at Duke University Medical Center in Durham, N.C. He also completed an orthopedic spine surgery fellowship at Cedars-Sinai Medical Center in Los Angeles.

Christopher A. Yeung, MD (Desert Institute for Spine Care, Phoenix). Dr. Yeung has been the principal investigator in several FDA studies, including the Flexicore lumbar artificial disc replacement, Cervicore cervical artificial disc replacement and DASCOR total nucleus replacement. He has a professional interest in minimally invasive spine surgery. In addition to his clinical practice, Dr. Yeung serves as the team spine surgeon for the Arizona Diamondbacks, Los Angeles Dodgers, Cincinnati Reds and Arizona Rattlers arena football team. He is a member of several professional organizations, including the North American Spine Society and American Academy of Orthopaedic Surgeons. Dr. Yeung earned his medical degree at the University of Southern California School of Medicine and completed his orthopedic residency at the University of California Irvine Medical Center. His additional training includes a spine surgery fellowship at the USC Center for Orthopedic Spine Surgery/Los Angeles Spine Surgery.

James Yue, MD (Yale University, New Haven, Conn.). Dr. Yue was a lead investigator for the FDA clinical trial of the ProDisc lumbar artificial disc replacement implant. His future clinical trials include working with the Activ-L lumbar ADR, Discover Cervical Disc and NuDisc nucleus replacement. He was among the first surgeons to perform artificial disc replacement in both the cervical and lumbar spine in Connecticut. Dr. Yue is the co-director of the orthopedic spine service at Yale and director of the Yale Spine Fellowship. He has a clinical interest in treating patients with scoliosis, arthritis, tumors and other spinal disorders. In addition to his clinical practice, Dr. Yue is a member of the American Academy of Orthopaedic Surgeons and North American Spine Society. Dr. Yue earned his medical degree at Northwestern University School of Medicine in Chicago and completed his residency in orthopedic surgery at University Hospitals of Cleveland. His additional training includes fellowships in orthopedic and spine trauma at RA Cowley Shock Trauma Hospital in Baltimore and in spine surgery at Queen's Medical Center in Honolulu.

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