



BRIAN R. SUBACH, M.D., F.A.C.S.

DIRECTOR OF RESEARCH
SPINAL SURGEON

College: Kalamazoo College, Kalamazoo, MI

Medical School: University of Michigan School of Medicine, Ann Arbor, MI

Residency: Neurosurgery, University of Pittsburgh, Pittsburgh, PA

Fellowship: Spinal Surgery, Emory Clinic, Atlanta, GA

Board Certification: American Board of Neurological Surgery, American Board of Spinal Surgery

Brian R. Subach, M.D., F.A.C.S. joined the medical staff of the Virginia Spine Institute in 2003 leaving behind his spinal surgery practice at The Emory Clinic in Atlanta.

Born in Detroit, Michigan, Dr. Subach attended Birmingham Brother Rice High School before graduating with honors from Kalamazoo College with a major in Chemistry in 1989. He graduated from The University of Michigan Medical School with distinction in 1993. By that time, he had received the Alpha Omega Alpha Award for his research in the molecular biology of nerve growth, the Edgar A. Kahn Award for Excellence in Surgery and the C. Gardner Child Award for Excellence in Neurosurgery. Based upon his achievements, he was inducted into the Alpha Omega Alpha (AOA) Honor Medical Society.

Dr. Subach was the only physician graduating from his University of Michigan Medical School class to be offered a residency training position in Neurological Surgery. He joined one of the premier programs in Neurosurgery at the University of Pittsburgh and distinguished himself early in his career by earning the Resident Teaching Award, acknowledging his dedication to the education of his fellow residents. During his research time in Pittsburgh, Dr. Subach chose to augment his surgical

skills by completing a fellowship in cerebrovascular surgery and microsurgery at the University of Texas Southwestern Medical Center in Dallas before returning to Pittsburgh for his seventh and final year in Pittsburgh.

After leaving Pittsburgh, Dr. Subach joined the teaching faculty at Emory University in Atlanta as a Clinical Instructor of Neurosurgery and completed an additional year of fellowship training focused on Complex Spinal Disorders. Within the year, he was promoted to Assistant Professor of Neurosurgery and Neurospinal Surgery. He remained on the teaching faculty at Emory until his transition to The Virginia Spine Institute in Reston, Virginia in 2003.

Dr. Subach played an integral role in the research and subsequent FDA (U.S. Food and Drug Administration) approval of rh-BMP-2 (recombinant human bone morphogenetic protein). BMP-2 is a specific protein, first isolated 50 years ago, which has been shown through extensive testing to promote stronger and more rapid healing of spinal bones without the need for painful bone grafting from the patient's own hip or pelvis.

In addition, Dr. Subach has gained both national and international recognition for his work in advancing the field of absorbable polymer technology in spine

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surgery. These synthetic polymers made from lactic acid cause less pain and less injury to the spine. Such devices actually dissolve and disappear after their work is in healing the spine is complete.

Dr. Subach has also pioneered the development of artificial cervical and lumbar discs for use in patients suffering from neck or back pain from degenerative disc disease. The new discs, made of stainless steel, cobalt-chromium alloys or shock-absorbing plastics, allow the surgeon to completely remove the painful disc and simply replace it with a new one. Such techniques, reminiscent of the “bionic” technology popularized on the television series of the 70’s, have demonstrated promising results. The Virginia Spine Institute implanted both the first Artificial Cervical Disc and the first Artificial Lumbar Disc in the metropolitan Washington D.C. area.

With his ability to cross the traditional boundaries between the laboratory and the operating room, Dr. Subach is making cutting edge technology available to his patients. Although minimally-invasive surgery is performed in a number of centers, the addition of Dr. Subach to the Virginia Spine Institute has moved the practice to the forefront of the development and implementation of minimally-invasive surgery, motion preservation and biologic technology.

As a former NCAA Division III athlete, participating in both football and lacrosse, Dr. Subach understands the value of medical involvement in the diagnosis and treatment of sports-related injuries. He has cared for both intercollegiate and professional athletes including players from the University of Pittsburgh football team, The Pittsburgh Penguins hockey team, The Atlanta Thrashers hockey team, The Georgia Institute of Technology football team

and is currently a Spinal Surgery Consultant to the Washington Redskins organization. Recreational, college, and professional athletes have all benefited from his experience in dealing with athletic injuries ranging from neck sprains and low back strains to fractures and spinal cord injuries.

Over the years, Dr. Subach has written extensively regarding both his clinical and laboratory investigations. To date he has authored more than 50 articles in peer reviewed journals and contributed to 15 textbooks regarding disorders of the spine. He lectures extensively regarding the management of complex spinal disorders in both national and international forums. He is the current Director of Research for The Virginia Spine Institute, the Director of Research for the non-profit Spinal Research Foundation (SRF) and Editor-in-Chief of the Journal of the Spinal Research Foundation (JSRF). He is an active member of the American Medical Association (AMA), the Northern Virginia Medical Society (NVMS), American Association of Neurological Surgeons (AANS), the Congress of Neurological Surgeons (CNS) and the North American Spine Society (NASS). He participates in the AANS/ CNS Joint Section on Trauma and Critical Care, the AANS/ CNS Joint Section on Spine and Peripheral Nerves and is the current Chairman of the AANS Young Neurosurgeons Committee. He is Board Certified by both the American Board of Neurological Surgery (ABNS) and the American Board of Spine Surgery (ABSS). Dr. Subach has been elected Fellow in the American College of Surgeons (FACS) and Fellow in the American College of Spine Surgeons (FACSS).

Dr. Subach and his family currently reside in Great Falls, Virginia.