

HISTORY OF TWIN CITIES SPINE CENTER

The history of the treatment of spinal disorders in the Twin Cities goes back to 1897 when Dr. Arthur Gillette opened the Minnesota State Hospital for the Indigent, Crippled and Deformed, now known as Gillette Children's Specialty Healthcare.

The first patient admitted to the hospital was Royal Gray, a seven-year old boy with severe tuberculosis of the spine. He was treated with bed rest, traction, diet and bracing and was discharged 534 days later as cured. He remained in good health throughout his childhood and young adult years.

The next major step was the first spine fusion done at Gillette in 1915 by Dr. Carl Chatterton, just four years after the first such fusion, done by Hibbs in New York in 1911.

Few spine surgeries were performed at Gillette in the 1920's and 1930's, because the surgery was quite dangerous due to crude anesthesia and no blood banking. During World War II (1940-1945), few spine surgeries were done since most orthopaedic surgeons were in the military.

Dr. John Moe was on the staff at Gillette as a general orthopaedist starting in 1934 and was familiar with the dismal quality of care for scoliosis patients at that time. In 1946, he attended a small meeting held at the Hospital for Special Surgery in New York City, hosted by Dr. John Cobb. Dr. Cobb demonstrated the good results he was achieving with posterior fusion and turnbuckle cast correction.

Dr. Moe returned to the Twin Cities determined to start a scoliosis service at Gillette, which he did in 1947, the true beginning of the Twin Cities Spine Center. The other doctors at Gillette were quite happy to give their scoliosis patients to Dr. Moe.

Dr. Moe worked very hard to treat the very large number of spine deformity patients at Gillette, most of them either idiopathic or post-poliomyelitis. Between 1947 and 1952, he used the turnbuckle cast method, operating through a window in the cast using a Hibbs type arthrodesis.

In 1952, Risser developed his localizer cast technique, which Dr. Moe quickly adopted. Dr. Moe also developed his special "facet fusion" technique during this time. In 1958 he published his landmark article in the Journal of Bone and Joint Surgery, demonstrating that with the facet fusion technique, autogenous iliac crest bone grafting, and skillfully applied Risser localizer casts, good results could be obtained with nice spinal correction and a low pseudoarthrosis (non-fusion) rate.

This publication put Dr. Moe "on the map" as a scoliosis expert and soon his private practice was swelling with patients from all over the world.

In 1960, Dr. Moe went to Houston, Texas to scrub in with Dr. Paul Harrington. He was impressed with the instrumentation he saw there. The first Harrington instrumentation performed in Minnesota was by Dr. Moe in May 1960 at Gillette.

In August 1960, Dr. Harrington came to the Twin Cities, doing one case at Fairview on Tuesday and two at Gillette on Wednesday. The resident on one of those two cases was Dr. William Kane and the other, Dr. Robert Winter. Harrington instrumentation and fusion quickly became the standard of care at both Gillette and in Dr. Moe's private practice.

During these formative years, Dr. Moe was also developing great expertise in non-operative care using the Milwaukee brace. He had always been a friend and colleague of Drs. Blount and Schmidt.

In 1964, at a national conference on scoliosis held at the University of Minnesota, it was proposed to begin a national society for the study of scoliosis. This led to the formation of the Scoliosis Research Society, its first meeting being held in 1966 in Minneapolis with Dr. Moe as its first President.

In 1968, Dr. Moe asked Dr. Winter, who had been helping on the Gillette Scoliosis Service, to take some of the load of scoliosis patients coming to his private office, providing Dr. Winter would do the cases at Fairview Hospital in Minneapolis so all the patients could be cared for in one locality. (Dr. Winter was in a private general orthopaedic practice in St. Paul at the time).

This part-time involvement by Dr. Winter gradually increased to the point that in July 1971, he left his private practice and accepted a full-time academic position at the University of Minnesota, working with Dr. Moe at Fairview and Gillette. In 1971, the first fellows, Dr. Ed Dawson and Dr. Claudio Pedras arrived.

In October 1972, Dr. John Lonstein completed the University of Minnesota orthopaedic residency program and was asked by Dr. Moe and Dr. Winter to join the scoliosis "team", working at the University, Fairview and Gillette.

In March 1973, Drs. Moe, Winter and Lonstein created the entity called the "Twin Cities Scoliosis Center". Dr. Lonstein was specifically charged with developing a data-retrieval system, which began with punch cards and then eventually became a computer program.

In July 1973, Dr. David Bradford was asked to join the group as the fourth member of the Twin Cities Scoliosis Center team. He had been trained in Philadelphia and New York and had worked with Dr. Moe at the University since 1969. These four surgeons formed the full team of the Twin Cities Scoliosis Center, with many papers and research being published, and new procedures being adopted at the three hospitals.

In 1978, the first edition of “Moe’s Textbook of Scoliosis and other Spinal Deformities” was published with the 2nd edition in 1987 and the 3rd edition in 1994.

In 1974, Dr. Moe retired as Chairman of the University Orthopaedic Department, but continued to work at Fairview until 1980, when he retired to Savannah, Georgia. He died in April 1988 from a brain tumor at age 82. Dr. Jack Mayfield was added to the Twin Cities Scoliosis Center staff in 1976 for a six-year period, to be replaced in 1982 by Dr. James Ogilvie.

In July 1986, the center divided into two separate programs. The Twin Cities Scoliosis Center (later renamed the Twin Cities Scoliosis-Spine Center), was located at Abbott Northwestern Hospital with Drs. Bradford and Ogilvie, and the Minnesota Spine Center, was located at Fairview Hospital with Drs. Winter and Lonstein.

Each of the two programs developed its own fellowship program and research database. As each program grew, more staff surgeons were added. At the Twin Cities Scoliosis-Spine Center, Drs. Ensor Transfeldt (1987), Timothy Garvey (1990) and Kirkham Wood (1991) were added. At the Minnesota Spine Center, Drs. Francis Denis (1986), Michael Smith (1989), Manuel Pinto (1990) and Joseph Perra (1992) were added. Dr. Bradford left in 1990 to become Chairman of the Department of Orthopaedics at the University of California, San Francisco, and Dr. Winter retired in 1995.

In 1997, the two groups joined back together as the “Twin Cities Spine Center,” headquartered at Abbott Northwestern Hospital. The two fellowship programs were melded into one, as were the data retrieval systems. Subsequently, Dr. Smith left in 1999 to establish his own practice and Dr. James Schwender was added to the staff that same year. Since then, Drs. Amir Mehbod (2002), Kevin Mullaney (2006), and Christopher Alcala (2015) have been added. Dr. Daryll Dykes joined the practice from 2003-2011, and Dr. Tenner Guillaume also joined the group from 2014-2015. In 2015 both Drs. Denis & Lonstein retired, though Dr. Lonstein remains at Twins Cities Spine as Research Director.

Five of Twin Cities Spine’s staff surgeons have been chosen as President of the Scoliosis Research Society: Drs. John Moe (1966), Robert Winter (1973), David Bradford (1984), John Lonstein (1990) and James Ogilvie (2002). New York University (NYU) has had two (Waugh, Engler) and Houston (Baylor), two (Harrington, Dickson). Otherwise, no other center has had more than one surgeon serve as an SRS President.

Twin Cities Spine Center continues to honor its legacy of excellence in the field of spine surgery through education, research and patient care. To date, over 165 Fellows and countless visiting physicians have been trained from all over the world. Locally, clinic access has been expanded to 10 clinics in the Minneapolis / St. Paul area and surrounding communities. The center continues to treat patients from many other states and even other countries. A single-minded devotion to improving spine care remains at the heart of its mission.