The Pioneers

A relative newcomer to the field of medicine, orthopaedics nevertheless has a fabled history. The word itself, orthopaedics, was coined in 1741 as a combination of two Greek words together meaning “straight child.” It was originally intended as a field for correcting and preventing deformities in children. It is along the same line that the Department of Orthopaedics at Wayne State University began. At the time of its inception, orthopaedic surgery was a small subset within the department of surgery, with only a handful of teaching faculty at the Detroit Medical College. An orthopaedic surgeon at that time was a general surgeon with little more than an interest in the musculoskeletal system. However, in Detroit, as in many other places throughout the country, it was becoming increasingly obvious that a mere interest in bones was no longer sufficient. Orthopaedics was slowly on its way toward becoming a specialty unto itself.

The field of orthopaedics in Detroit began with Dr. Henry O. (known as H.O.) Walker. Dr. Walker was born in Michigan in 1843 and, after graduating from the University of Michigan in 1865, spent two years as house surgeon at Harper Hospital in Detroit before continuing his medical education at Bellevue Hospital Medical College in New York City through 1867. He promptly returned to Detroit and established himself as a very skilled technical surgeon. Politically, he served as city and county physician and as a member of the City Board of Health.

Upon the organization of the Detroit Medical College in 1868 he was immediately appointed a demonstrator of anatomy. He worked his way up the ranks at the Medical College until 1881, when he was named the first professor of orthopaedic surgery. This title was in addition to his appointments as professor of genitourinary disease and professor of clinical surgery. He also became a secretary and trustee of the Medical College.
Dr. Walker was involved in the advancement of the field of orthopaedic surgery at the time with the publication of several surgical articles, including one titled “Plaster of Paris as a Surgical Dressing” in 1884. He later established the Detroit Clinic, a local medical journal of which he was editor. Dr. Daniel LaFerte also helped advance orthopaedics with medical publications, including one titled Some Deformities Corrected in 1899. While we may look back at these men as founders of orthopaedic surgery in Detroit, they were at heart general surgeons pioneering the study of the entire human body. This is evidenced by Dr. Walker’s many publications on abdominal surgeries as well as his 1888 publication, Report of Four Cases of Trephining the Skull. Regardless of their many interests and talents, they certainly paved the way for the future expansion of orthopaedics.

Dr. LaFerte joined with Dr. Walker at the beginning of orthopaedic surgery in Detroit. Born in 1849, he studied medicine at the Detroit Medical College and Jefferson Medical College in Philadelphia, earning his degree from the latter in 1871. Immediately resettling in Detroit, he was appointed assistant demonstrator of anatomy at the Detroit Medical College by the following year and quickly worked his way up to demonstrator and subsequently full professor by 1879. On top of his duties at the Medical College, he worked as a surgeon at Children’s Free Hospital and Harper Hospital, spending the greater portion of his time at the practice of orthopaedic surgery. He would eventually become the first head of the Sub-Department of Orthopaedic Surgery in 1913.

The Doctors — Dr. Alfred LaFerte and Dr. Angus Goetz

Dr. Alfred LaFerte was born in 1886 and was a skilled baseball player. He was offered the chance to go into professional baseball but decided instead to follow his father, Dr. Daniel LaFerte, into medicine. He graduated from the Detroit Medical College in 1910 and started his practice in Detroit. He joined the Medical College staff at Harper, Children’s and Receiving hospitals as teaching faculty, working side by side with his father. Through their professional relationship, the elder Dr. LaFerte continued the role of teacher, albeit unconventionally. One story Alfred often recounted was that of one of his first solo surgical cases.

The patient was a young girl with torticollis, or “wry neck,” and before surgery Alfred asked his father for advice. Daniel LaFerte warned and prepared him for the many difficulties that could come up during the surgery and questioned whether the young surgeon was ready for such a potentially difficult case. Alfred was confident he would have no problems and went ahead with the surgery against his father’s advice. Of course he ran into some difficulties and asked one of the OR nurses to get his father for help. The nurse returned alone but with a message from the elder Dr. LaFerte: “You got yourself into it, now get yourself out of it.” Alfred slowly and carefully finished the surgery using the skills and knowledge his father had taught him.
Known for his toughness, Dr. Alfred LaFerte naturally enlisted at the start of World War I. He joined the Harper Hospital Unit, US Army Base Hospital 17, and was eventually promoted to the rank of major and served in Dijon, France, as head of the hospital’s Orthopaedic Surgery division. Upon returning home he rejoined his practice and the teaching faculty at the Medical College. He was appointed head of the Orthopaedic Department in 1925 after the death of his father, a position he held until the department’s mandatory resignation age of 65. He retired from practice in 1960.

Dr. Alfred LaFerte’s lectures to medical students expanded through the 1930s to include a one-hour didactic session on case diagnosis, physical, mechanical and operative treatment and correction as well as a two-hour sectional instruction on clinical, practical and operative instruction in wards, outpatient departments and the operating room at Receiving Hospital. By 1939 he was joined at Children’s Hospital by Dr. Frederick C. Kidner, who gave one-hour orthopaedic case presentations every week, and that year Dr. LaFerte added another course to the syllabus: Demonstration and Discussion of Cases of Bone and Joint Tuberculosis at Herman Kiefer Hospital.

Orthopaedics continued in this fashion in Detroit until 1950, when Dr. Angus Goetz took over for Dr. LaFerte and was named the first acting chairman of the Department of Orthopaedics at Wayne State University. In 1958 Dr. Goetz was named the official chairman, a title he would hold until 1964. Dr. Angus Goetz was a man who held many distinctions in his life, including being the only man in the history of University of Michigan football to captain the team twice, as well as winning the coveted Willie Heston award in 1969 for personifying leadership qualities developed by football.

Dr. Goetz entered U of M in 1915 and played four years of varsity football, captaining his team in 1919 and 1920. He played his last three years while in medical school. The story goes he that he was going to quit football in 1918 because the first three games were canceled due to an influenza epidemic. The hospitals were full and the Michigan squad was down to 25 players. “I had just entered medical school and because of the heavy load and uncertainty of the season,” Dr. Goetz recounted in 1982 at a ceremony honoring his achievements, “I decided football would be too much.” But after a brief conversation with Coach Fielding Yost, “I decided to stick with football for the rest of my college days, a decision I never regretted.” Dr. Goetz went on to beat rival Chicago in the first game of the season, 13-0, on a wet field where Goetz picked off a Chicago field goal attempt and ran the ball back for one of the three touchdowns he would score that year. “Not bad for a tackle,” he remarked. It is that same dedication and tenacity that helped him become instrumental in the early days of the WSU Department of Orthopaedics.
In 1952 Our Standards Were Set

Up to the early 1950s, many orthopaedic problems were being handled by any emergency room physician, general surgeon or resident who came across them. There were no standards for which patients qualified for an orthopaedic consultation. Then in 1952, Dr. Goetz and other orthopaedic surgeons drafted a hospital wide-letter highlighting the list of major orthopaedic problems to be handled by members of the Orthopaedic Department:

1) Fractures and fracture-dislocations and dislocations of the cervical, dorsal and lumbar spine.
2) Arthroty on all joints.
3) Intra-articular fractures of various joints.
4) Intra-capsular fractures of the neck of the femur.
5) Inter-trochanteric fractures of the femur with displacement.
6) Sub-trochanteric fractures of the femur with displacement.
7) Slipped upper femoral epiphysis.
8) All bone grafting procedures.
9) Comminuted fractures of long bones with displacement.
10) Resection and reconstruction of all joint surfaces.
11) Tendon transplantation.
12) Arthrodesis of any joint.
13) Bone tumors.
14) Fusion of all joints and spine fusions.
15) Congenital dislocation of hips.
16) All congenital deformities.

And with that letter, the Department of Orthopaedics at Wayne State University had opened its doors for business.
Dr. Herbert E. Pedersen

In 1964, Dr. Herbert E. Pedersen was named chairman of the Department of Orthopaedics at Wayne State University. Pedersen’s first order of business was to develop an “integrated program to introduce Medical Students to the entire field of musculoskeletal diseases and injuries” by means of demonstrations, lectures, conferences and clinics, and he was the first to develop an orthopaedic surgery clerkship for interested students. At the time little emphasis was placed on technical skills, as the clerkship offered the opportunity to learn “proper management” of emergencies, including proper splinting and simple plaster techniques. The Wayne State University Orthopaedic Residency Program was the 12th such program recognized and approved nationally by the Council on Medical Education and the American Board of Orthopaedic Surgery as offering acceptable training.

At the time of its creation in 1949 under the leadership of Dr. Alfred LaFerte, the residency program accepted two residents each at Children’s and Harper Hospitals for a total of one year of residency, and three residents at Receiving Hospital for a half-year program. The residents at that time got a stipend of between $100 and $188 per month and treated 270 patients at Children’s, 757 patients at Harper and 837 at Receiving Hospital. Patient mortality rates for the newly founded residency program were reported as zero deaths at Children’s, five deaths at Harper and 28 deaths at Receiving. All told, residents saw more than 14,000 people on an outpatient clinic basis that year.

Of course, even with all those clinic hours logged, with regard to residents some things never change. In the minutes to a meeting of the section of Orthopaedics in March of that year: “Dr. Purcell doesn’t see his interns and is in plaster room without help most of the time when residents and interns are lolling about. Dr. Stiefel feels interns are not getting much out of fractures.” In October 1949, Dr. F.E. Curtis said he “never sees the same intern twice and feels it’s a handicap to both intern and staff, and he never sees an intern on the ward.” Dr. G.A. Brough stated, “it is hard to find interns and they are not familiar with orthopaedic instruments.” But residents were here to stay.
By the time Dr. Pedersen became chairman in 1964, the number of residents stood at 18 total, with one each at the VA and Grace, two each at Children’s and Harper, and 12 residents assigned to Receiving. The average daily inpatient census that year was seven at Children’s, 27 at Receiving, 33 at Harper, 38 at the VA and 40 at Grace, with a total of more than 17,000 outpatient visits, the majority of those being at Receiving Hospital. The salary for residents that year was $4,020 for the residents at Children’s, $5,088 at Receiving, $4,800 at Harper, $5,865 at the VA and $4,500 at Grace.

But Dr. Pedersen believed that each hospital having its own residents was too discordant, and under his guidance the Wayne State University Department of Orthopaedics residents were finally unified. This proved to be a large restructuring of the department, but by 1970 there were a total of 15 residents, five each for postgraduate years 2, 3 and 4, with interns spending a year on the general surgery service. In 1971 Dr. Pedersen added Oakwood Main in Dearborn as a sixth hospital to round out the residents’ rotation schedule. The residency program retained its three-year structure until 1981, when a fourth year was added; this also increased the size of the resident body to 20 members total.

Dr. Pedersen also left a strong focus on research as his legacy. He was a proponent for bettering the field of orthopaedics and under his leadership, the Wayne State Department of Orthopaedics has since published hundreds of papers and has made many advances. In 1968 Dr. Pedersen brought attention to the needs of the aging population with a journal article titled “The Problem with the Geriatric Amputee.” Through the ‘70s and ‘80s the surgeons at Receiving Hospital were involved with many of the seminal publications on trauma.

In 1981 Dr. Richard L. LaMont developed a new method of determining the extent of avascularity of the capital femoral epiphysis in suspected Legg-Calve-Perthes disease using radionuclide scintigraphy. The following year he and Dr. Arthur Manoli were the first to describe skeletal changes associated with copper deficiency. In 1990 Dr. Manoli went on to describe a new calcaneal compartment of the foot that could lead to compartment syndrome, also describing a surgical technique for release of all nine foot compartments.
In 1983 Dr. Petersen was replaced by Dr. Richard L. LaMont, who remained chairman until he was replaced in 1990 by Dr. Robert H. Fitzgerald Jr. During Dr. Fitzgerald’s tenure he managed to increase the size of the program to 26 residents by combining with the quad residency programs of Providence, Sinai, Grace and Mt. Carmel. Dr. Stephen P. DeSilva took over as chairman in 1996 and fought to increase the program size to a maximum of 30 total residents in 1998. Dr. DeSilva remained chairman until a series of financial and political decisions between Wayne State University and the Detroit Medical Center Hospital system, incorporating Receiving, Harper and Children’s Hospitals, forced the program to dissolve in 2006.

In the 1980's Dr Robert Teitge, who was also team physician for the Detroit Lions, Tigers, Red Wings and Pistons, pioneered new approaches to the patellofemoral joint with publications recognizing iatrogenic medial patellar dislocations (1991), originating Stress Radiographs of the PF joint to diagnose patellar instability (1996), using fresh osteochondral bipolar allografts for patellofemoral replacement (2006), developing reconstructions of both lateral and medial patellofemoral ligaments (2004,2006) and first using rotational osteotomies of femur and tibia for treating anterior knee pain secondary to limb mal-torsion (2006).
Our History Continues

A new era for the Department of Orthopaedics began at Wayne State when, in July 2009, the department successfully petitioned the Accreditation Council for Graduate Medical Education (ACGME) for reinstatement of the University-based Orthopaedic Residency Program.

Led by Dr. Lawrence G. Morawa as chairman, and housed primarily in the Oakwood Healthcare Community, the new Wayne State University-affiliated Department of Orthopaedics promises to rebuild a strong orthopaedic foundation within the Detroit academic medical community. With an emphasis on scientific and surgical education, utilizing basic science as well as clinical research in conjunction with Wayne State University, the residents produced by the current program promise to lead the field of orthopaedic surgery into the next frontier, while providing excellent patient care in the process.