Dr. Mark Crawford, M.D.
Modern Day Renaissance Man

By Kimberly Gregory Russell

A quick glance at the exterior of Dr. Mark Crawford's office building, located on Lone Oak Road in Paducah, confirms that this is no ordinary doctor's office. Dr. Crawford, the first fellowship-trained orthopedic spine surgeon in western Kentucky, practices in an office inspired by Thomas Jefferson's famous Virginia home, Monticello. A portrait of Jefferson hangs on the walls of the waiting room, a room that is furnished with lovely antique furniture and adorned with breathtaking moldings and flooring. However, after spending just a few moments with Dr. Crawford, a Mayfield native and graduate of Rhodes College and the University of Kentucky, it is quite apparent that the similarities between Jefferson and Crawford are not limited to their taste in architecture.

Thomas Jefferson was an American statesman and Renaissance man, who played the violin, spoke six languages, founded the University of Virginia and the Library of Congress, and had a deep passion for architecture. Like Jefferson, Dr. Crawford has a profound love of learning and a broad range of interests and skills. A graduate of a liberal arts institution, Dr. Crawford possesses an undergraduate degree in chemistry but notes the importance of a broad-based education. An avid woodworker, Dr. Crawford himself created much of the ornamental woodwork, modeled to scale from Jefferson's home, in his office. A pilot and former flight surgeon in the Kentucky Air National Guard, Dr. Crawford served in Operation Desert Storm in 1991. It was his desire for new challenges, his love of fixing things, and his passion for helping others that led him to eventually focus his practice on the subspecialty of spinal orthopedics.
Dr. Crawford entered private practice in orthopedics in 1983 after electing to complete an internship that included training in a broad range of medical specializations: general surgery, emergency medicine, internal medicine, and pediatrics. Believing in the importance of being a well-rounded physician, Dr. Crawford chose to broaden his studies as an intern. He noted, though, that "Orthopedics is simply the most fun specialty! When the right patient meets the right treatment, it's like flipping a switch. So much about this field is about relieving people's pain and restoring their quality of life as much as possible. One of the most rewarding moments of my career was the hug received from a young woman who, following a one-hour procedure for a herniated disk on Christmas Eve one year, was so grateful to finally have relief from the debilitating pain she had been suffering."

In 1991, Crawford left his practice in Panama City, Florida, after being called to active duty for Operation Desert Storm. Upon returning to the United States, Crawford made the decision to enter the sub-specialty of spinal orthopedics. After a one-year fellowship with world-renowned orthopedic spine surgeon, Dr. Richard T. Holt, with whom Crawford still operates in Louisville, Crawford chose to return home to western Kentucky in 1992. Dr. Crawford explains, "It's so much more meaningful and also more fun to practice at home. Feel a much more personal connection to the people of this region, and have a greater sense of personal investment when I am serving patients here. The big city simply is not for me, and I always missed western Kentucky when I was away." As part of his commitment to service in this area, Dr. Crawford is the only spine surgeon in western Kentucky who operates on spinal deformities in children, including scoliosis. Since 1995, he has served as a Staff Physician with the Kentucky Commission for Children with Special Healthcare Needs, offering a scoliosis clinic to provide quality and experienced care to children with major spinal deformities. Dr. Crawford has also served as a peer review consultant for the Kentucky Board of Medical Licensure.

Dr. Crawford explains that a common misconception out there is that "big city equals better doctor and better hospital." He states, "As a spine surgeon currently operating in both Mayfield and Louisville, I can state with certainty that any procedure you can have in Nashville or Louisville, you can safely have here in western Kentucky. Remember the big city surgeon doesn't have to worry about running into you at the hardware store."

On the other hand, Dr. Crawford is the first, and currently the only surgeon in the United States performing the William Tell spinal fusion, a procedure he learned in Europe several years ago. However, for patients who do feel more comfortable having a procedure in a larger city, Dr. Crawford maintains hospital privileges in Louisville, in addition to Jackson Purchase Medical Center in Mayfield, his home town. In fact, Crawford and his mentor Dr. Richard Holt from Louisville, often perform more complex procedures together in both Louisville and Mayfield. This collaboration is made practicable because both are aircraft pilots. Also a senior FAA Aviation Medical Examiner, Crawford notes that an airplane allows physicians to do surgery in one town and see patients in another on the same day.

Crawford is proud to do the majority of his private practice in western Kentucky because he is able to treat patients in a way he believes is most effective. Crawford notes, "Today unfortunately most practices must depend upon volume. They need to screen patients quickly for the surgical cases and move the rest out the door - I'm determined to be different, though. Unlike many spinal surgery practices, mine is highly individualized and is dependent on developing relationships and communication with my patients. When they come for their examination, they actually see the surgeon, and that is no longer common practice - choose to personally invest in each patient in order to have the best odds of making an accurate diagnosis. The treatments can't help if the diagnosis is wrong. This approach takes time."

Dr. Crawford treats patients with a variety of spinal conditions and injuries. Some of the more common types of conditions he treats are spinal stenosis, herniated disks, scoliosis, compression fractures, and pinched nerves. He notes that, unfortunately "In the elderly many of these conditions are as common as fleas on a dog." Fortunately since Dr. Crawford entered the spinal orthopedic sub-specialty a number of advances in technology and innovations in treatments have made it possible to not only treat more conditions but also to treat them more effectively. He noted that in 1983, when he first began doing spinal procedures, the options were quite limited. Surgeons had only one type of rod for spinal fusions, used along with a body cast. Spinal fusions were only possible using the patient's own bone. Imaging options were extremely limited, and the materials used in procedures were limited.

Today however spinal orthopedic surgeons have access to a wide variety of treatments and technology that can improve the quality of life for patients. For example, spinal fusions can now be done with donor bone or even bone substitute, and bone growth stimulators are now available. Implants are now titanium or even plastic or composite, making them more MRI compatible. However Dr. Crawford notes that he is extremely cautious before he adopts new technology, new procedures, or new equipment. His commitment to research and critical assessment of whatever is the "latest thing" in his field helps him to ensure that he provides his patients with options that are both safe and effective. He adds that his years in the
field along with his broad-based training have helped him to develop a strong sense of judgment that helps him both in his diagnosis of a patient, his choice of treatment route, and his selectivity in adopting new procedures and technologies.

He cautions that the term "minimally invasive," like the term "laser," can sound extremely attractive to patients, but some heavily advertised "minimally invasive" treatments turned out to be "minimally effective." However, Dr. Crawford notes that he does strive to seek out less invasive options whenever possible and appropriate for the patient. One particular procedure that Dr. Crawford has been performing for over ten years is the balloon kyphoplasty used to repair vertebral compression fractures, a painful occurrence caused "when one of the bones of the spinal column weakens and collapses" (Kyphon, 2004). This treatment, which can be done often under local anesthesia in less than an hour, repairs these fractures by inserting an orthopedic balloon into the fracture and then later filling the space created by the balloon with bone cement to stabilize the fracture. Dr. Crawford notes that a vast majority of patients who have had this procedure, which has been performed worldwide on hundreds of thousands of patients now experience a significant reduction in pain and face a smaller risk of complications resulting from the procedure.

Along with being the first surgeon to offer the balloon kyphoplasty in western Kentucky, he also performed the first pedicle subtraction osteotomy and the first complete vertebrectomy procedures used to correct major spinal deformities. Crawford was also the first in this region to use technology such as segmental instrumentation, fusion cages, spinal plates, cervical and lumbar artificial disc replacement, and carbon composite spinal implants. With patents pending for new spinal surgical instruments and devices, this innovative, dedicated surgeon hopes that youth in this region can learn from his story. Crawford wants students in western Kentucky and in other rural regions to know that, "it's not always those 'guys from somewhere else' who do great things. Being a kid from a small town does not mean that you are limited in what you can do with your life. You can be from anywhere and do anything and be outstanding." He adds that it's important for people to be proud of where they are from and to avoid the insecurity that can stem from being a "small town kid."

Patients in the region who may be experiencing a spinal condition that requires surgery can expect a unique, in-depth, and thorough examination and diagnostic process when working with Dr. Crawford. According to Dr. Crawford, a successful office visit begins before the patient ever walks in the door because it's essential that both doctor and patient are prepared for the visit. Dr. Crawford explains that knowing a patient's history is essential to the most accurate diagnosis and treatment plan. He then explains that often the pain patients experience can first seem like a mystery waiting to be solved, and it is absolutely essential for the physician to match the right patient with the right diagnosis and treatment because even the best surgery on earth will not help if that is not what the patient actually needs. Therefore, an in-depth interview and careful observation is an important part of Dr. Crawford's thorough process with each and every patient. His goal is to build a relationship with the patient, understand the patient, and collaborate with the patient in order to determine the best possible treatment. It is also essential to Dr. Crawford to educate his patients and help them to have realistic expectations for the outcomes of procedures. "It's really fulfilling to solve a puzzle that the body has created and then help my patients have an improved quality of life. My approach to working with patients the way that gives me confidence that I'm doing my best to match the right person with the right procedure," explains Crawford.

Though many of the conditions that Dr. Crawford treats are caused by genetic predisposition, there are several ways that people can take better care of their spines and possibly avoid some common spinal problems. Dr. Crawford suggests, "If you want to put a whole lot of spinal surgeons out of business, here are a few things you can do. Don't smoke, do drink your milk, take your calcium and vitamin D supplements, stay active and in shape, maintain a healthy weight, wear your seatbelt, and be sure that your headrest is positioned properly in your vehicle." He also suggests that people take advantage of osteoporosis screenings and treat the condition if it is present because today many drugs are available that actually reverse the degeneration caused by osteoporosis.

Dr. Mark Crawford is an excellent example of the presence of greatness in a small town. Though he has been all over the world and could take his practice anywhere he wished, he chooses to bring his talents and his experience to the west Kentucky region because of his commitment to his home and the people who share this home. His office building pays homage to one of America's most celebrated Renaissance men, and Dr. Crawford himself has dedicated his time and talents to the pursuit of excellence in all that he does.

For more information, contact Dr. Mark Crawford, Jackson Purchase Medical Center at 270-415-9970.