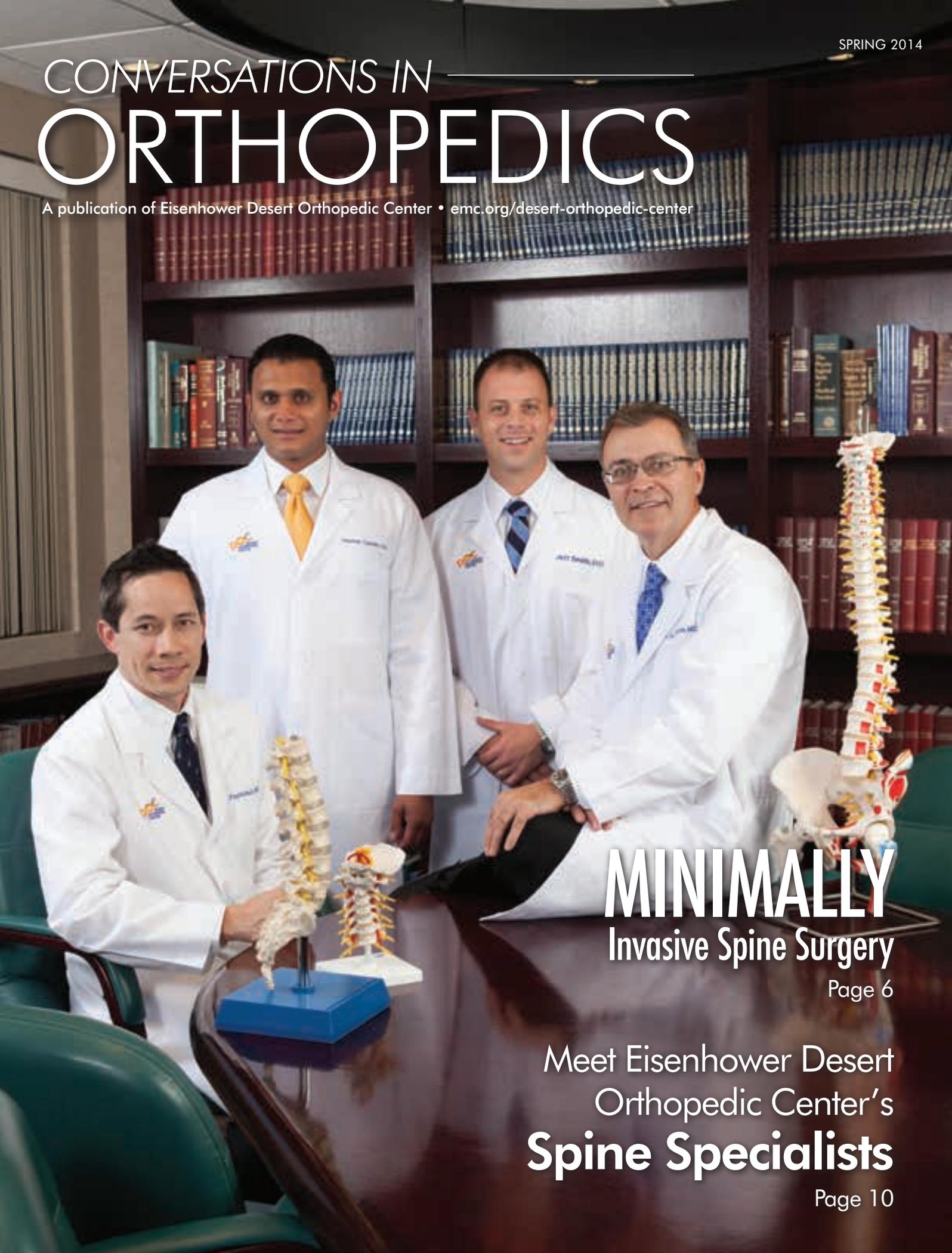


# CONVERSATIONS IN ORTHOPEDICS

A publication of Eisenhower Desert Orthopedic Center • [emc.org/desert-orthopedic-center](http://emc.org/desert-orthopedic-center)



## MINIMALLY Invasive Spine Surgery

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## Meet Eisenhower Desert Orthopedic Center's Spine Specialists

Page 10



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## CONVERSATIONS IN ORTHOPEDICS

A publication of Eisenhower Desert Orthopedic Center

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Eisenhower Desert Orthopedic Center is committed to helping people lead active lives, whether it's through treating a sports or work-related injury, detecting osteoporosis, replacing a joint, or relieving chronic or acute pain. Our mission is to continually develop and maintain comprehensive programs in all areas of orthopedics, addressing each aspect of patient care from initial consultation, diagnosis and treatment through recovery. Our focus is on quality care, investing in the technology and personnel necessary to deliver our services efficiently and to achieve the desired results for each patient.

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**On the cover:** Eisenhower Desert Orthopedic Center's spine specialists: Reginald Fayssoux, MD; Hazmer Cassim, DO, DABPM; P. Jeffrey Smith, DO; and A. David Tahernia, MD

## DIRECTOR'S LETTER

# The New Paradigm in Spinal Care: Collaboration Among Providers



Welcome to our inaugural edition of the Eisenhower Desert Orthopedic Center magazine, *Conversations in Orthopedics*. As director of the Comprehensive Spine Center, I am thrilled to present our concept of spinal care delivery. As I gained experience in my own practice, I realized the need for a coordinated approach to tackle the almost endless disease processes afflicting the spine. More than 80 percent of all Americans will suffer debilitating spinal pain and will seek medical attention during their lifetimes! Back and neck pain cost employers billions of dollars annually in lost productivity. Yet the majority of cases can be self-limiting and easily treatable with correct diagnosis and treatment delivered in a timely and efficient manner.

The spine is the most complicated and fascinating structure in the human body (I am biased, of course). It, therefore, only stands to reason that the best way to deliver optimum care is to collaborate with providers from different educational backgrounds with a broad range of expertise. At Eisenhower Desert Orthopedic Center, we offer surgery, pain management, physical therapy, acupuncture, nutritional support and diagnostic imaging, all essentially under one roof, making the delivery of care as seamless as possible. Physician assistants are extensions of our practice and facilitate timely access to our practice. We will guide you through your care, achieving the best possible outcome with the least invasive approach possible.

The cornerstone of treatment is the belief that the vast majority of cases can be treated without surgery. That is our shared philosophy. Yet, in the properly selected patients, surgery is extremely successful and predictable. Dr. Fayssoux and I will discuss just those instances when surgery is the best option and what new and minimally invasive techniques we have available. Drs. Smith and Cassim will explore myriad nonsurgical treatment options to decrease pain and improve function. Paige Larson will explain why physical therapy and fitness are so important to the function of the spine. Deidre Braun, L.Ac., will discuss the benefits of acupuncture — how it works and what role it has in our comprehensive approach to spinal care.

Please allow us the privilege of taking care of your spinal needs. I hope you find the magazine informative and enjoy the articles. We are truly passionate about our approach to spinal care, and we hope this is conveyed in the magazine and, even more importantly, as you entrust us with your care.

The Comprehensive Spine Center at Eisenhower Desert Orthopedic Center mission statement:

*To provide timely and efficient care in a coordinated fashion  
To achieve the best results with the least invasive approach possible*

A. David Tahernia, MD  
Director of the Comprehensive Spine Center



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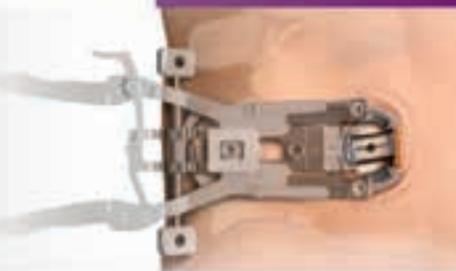
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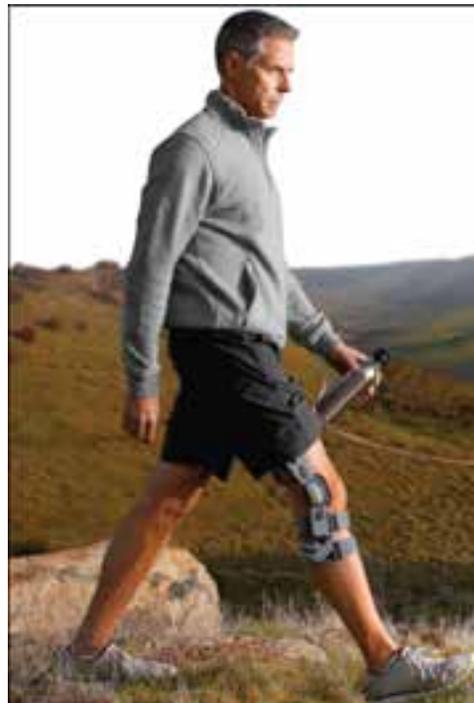


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# CONVERSATIONS IN ORTHOPEDICS



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# Minimally Invasive SPINE SURGERY



by Reginald  
Fayssoux, MD

Almost as certain as death and taxes are neck and back pain. Nearly eight in 10 individuals will develop neck or back pain significant enough to warrant medical attention at some point in their lives. With advances in conservative management techniques, only a few will progress to require surgery. Thankfully, traditional open-neck or -back surgery, in properly selected patients, can have excellent outcomes in the long term. In the short term, however, traditional open surgery results in a degree of damage to normal tissues that can result in longer hospital stays and a lengthier overall recovery period. More recently, technological advances in spinal imaging and instrumentation have allowed spine surgeons to address an evolving array of diagnoses with new, less invasive techniques that achieve the same goals, though with shorter hospital stays and quicker returns to activity.

In order to understand minimally invasive spinal (MIS) surgery, it is helpful to first try to understand what is involved in traditional spine surgery and, specifically, try to understand the surgeon's dilemma — how to get to the spine without damaging too much normal tissue.

Just how does the surgeon get to the spine? In truth, there are a variety of different ways to “approach” the spine, all with different advantages and disadvantages. These different “approaches” are simply different paths that can be taken to get to the spine. The most commonly used approach is the posterior approach, which is done through a skin incision in the middle of the back of the neck or low back. The back muscles are stripped from the spine: detached from the spine, split down the middle and

then elevated off the bone. You can think of it as “peeling” the muscle off of the back of the spine and off to the side. Because the muscles are attached to the bone, “peeling” the muscle off the bone hurts. Much of the recovery after posterior cervical (i.e., neck) and lumbar (i.e., back) surgery relates to the healing of these back muscles. The more muscle that is stripped and the farther off to the side it needs to be “peeled,” the more it hurts, and the longer the recovery. Why, then, would we choose this path? Because this approach allows for the most direct path to the spinal canal, and there are no major nerves or blood vessels in the way. This approach is the workhorse for low-back surgery.

Minimally invasive posterior approaches, in contrast, rely on minimizing the amount of muscle that is stripped off the spine. These less invasive approaches typically use a small incision off to the side of midline so that a path can be taken between the muscle fibers instead of having to detach them. Specialized retractors are then used to maintain a tunnel through which the surgeon operates using specialized light sources and instruments. These procedures typically have less blood loss, decreased infection rates (because less tissue is damaged) and quicker recoveries when compared with open procedures. However, these procedures often take longer than open procedures, and, more importantly, they are not able to address all spinal problems.

In addition to the posterior approach, the surgeon can get to the spine through the front of the neck or abdomen (i.e., anterior approach) or through the side of the abdomen (i.e., lateral approach). In these situations, muscle does not typically have to be “peeled” off the bone; instead, the path to the spine goes in between muscle fibers without detaching the muscles from their bony attachment points. Sometimes these approaches are used in conjunction with a posterior approach, thus taking care of a problem through multiple small incisions with less tissue trauma as opposed to a single larger incision that requires more extensive muscle stripping. These approaches have significant advantages in recovery from the standpoint of muscle healing. However, these approaches do not allow easy access to the spi-



nal canal, and, typically, there are major nerves, blood vessels and organs in the way that need to be avoided.

So why do we not perform minimally invasive spine surgery on all of our patients? Unfortunately, for a variety of reasons, not everybody is a candidate for MIS surgery. Sometimes the problem is too large to be handled effectively by minimally invasive techniques, sometimes the patient's anatomy is not suitable for minimally invasive techniques, and sometimes patients have a medical condition where the advantages of a shorter anesthetic duration outweigh the advantages of decreased tissue trauma. In short, MIS surgery is an option when the benefits outweigh the risks in any given patient. Ideally, the choice your surgeon makes is based on an individualized assessment of the relative advantages and disadvantages of the different techniques in your particular situation.

In my training, there was a saying — "If all you have is a hammer, everything looks like a nail." Having experience with the multitude of less invasive options now available allows us as surgeons to individualize our approach to our patients. At Eisenhower Desert Orthopedic Center, we continually strive to be the best at what we do. We pride ourselves on staying at the forefront of technology, in a selective manner, adding to our armamentarium of tried and true options, as opposed to options not yet fully vetted, in order to have at our disposal a wide array of safe options for our patients.

We understand that there is no substitute for a caring, technically proficient, personalized approach to spinal disorders. ■

**"From the start, he was the most caring doctor I have ever met."**

*"After multiple botched neck surgeries, I was left with chronic pain and unable to swallow anything solid. I came to see Dr. Fayssoux with little hope. From the start, he was the most caring doctor I have ever met. He took the time to explain my situation. He sat down and discussed my options. He even called my mother and helped her understand what was going on! I underwent revision surgery with Dr. Fayssoux and now have my life back. I am pain free, and the smile on my face when I swallowed my first bite of food was ear to ear! I came from outside the valley to meet Dr. Fayssoux, and I feel so blessed to have met him and to have this second chance at life. I would recommend him wholeheartedly to anyone considering spinal surgery."*

A.R.



A. David Tahernia, M.D.

## Do You Have a Loved One Who is Suffering from Lumbar Spinal Stenosis?

### Clinical Trial For Lumbar Spinal Stenosis

Every year over **300,000 people** are affected by a painful and sometimes debilitating condition known as lumbar spinal stenosis (LSS). In LSS, the spine narrows and puts pressure on the spinal cord and nerves, causing back and leg pain. A. David Tahernia, MD of the Desert Orthopedic Center, is participating in a clinical trial to evaluate the safety and effectiveness of the ACADIA™ Facet Replacement System for those suffering from LSS. This is an investigational device designed to treat LSS without fusion, while maintaining the motion of the spine. Desert Orthopedic Center is one of up to 30 sites in the US approved for inclusion in this study.

The study is open to both male and female patients between the ages of 21-85, who have been diagnosed with LSS. Additional inclusion criteria must also be met.



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# What Is Pain Management?



by P. Jeffrey Smith, DO

The spine center at Eisenhower Desert Orthopedic Center is a multidisciplinary and comprehensive program. This means we encompass many different fields of medicine focused on improvement of pain, function and quality of life. We specialize in every modern and evidence-based type of spinal medicine. Our team includes orthopedic spine surgeons, physiatrists/pain management specialists, physical therapists, physician assistants and an acupuncturist/herbalist. A common philosophy shared by all is that conservative management usually is ample to provide relief and accomplish goals. This is why our physiatrists/pain management physicians are usually at the forefront of managing these cases.

Our physiatrists are board-certified physicians in physical medicine and rehabilitation (PM&R) and fellowship-trained in pain management and interventional spine medicine. PM&R is a field of medicine that prides itself in practicing individual-based rehabilitation from all kinds of injuries, including central and peripheral nervous system and orthopedic/sports injuries. They are experts in all kinds of injection techniques available, as well as medication management, electromyography and nerve-conduction study (EMG, NCS), neuromodulation, head-

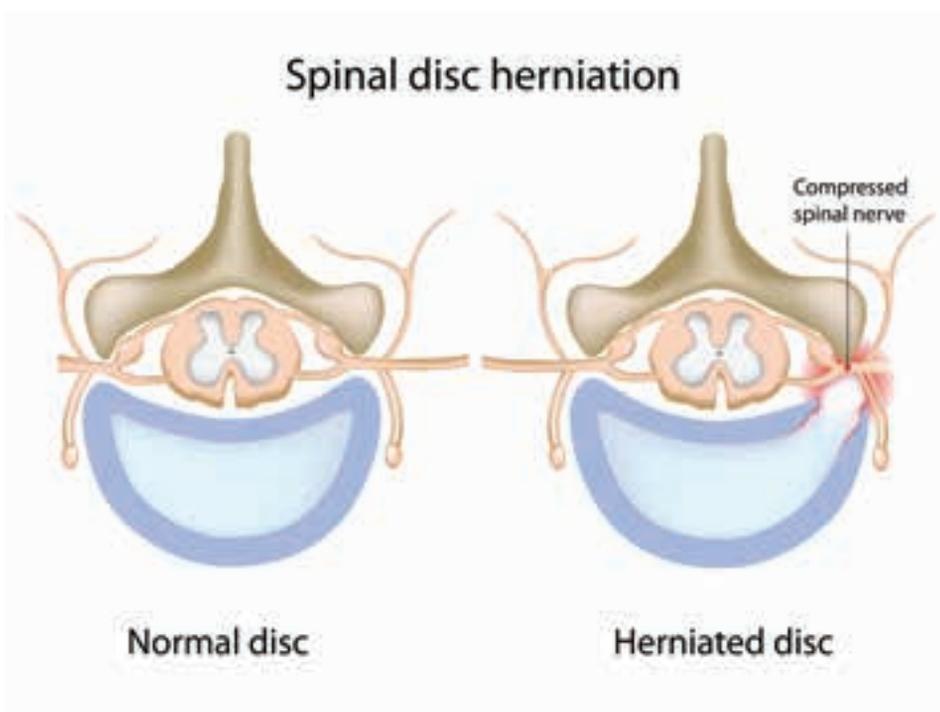
ache management, chronic pain and musculoskeletal ultrasound.

Our team prefers independent histories and examinations with the physician subspecialist and the patient. For more complex cases, we frequently meet as a team or even discuss the individual case doctor-to-doctor during an office visit. Each patient has a customized treatment plan to ensure optimal care and outcomes. Often, a course of physical therapy and establishment of a home exercise program is all one needs to improve one's daily activities and pain

level. We have expertise in all types of medications, as well as physical modalities, bracing techniques and topical/transcutaneous treatments. A common prescription for acute low-back pain with a muscle strain and underlying degenerative arthritis includes a course of physical therapy, use of a TENS unit and a muscle relaxant and/or anti-inflammatory medication. TENS stands for transcutaneous electrical nerve stimulation and is a valuable physical modality to improve local muscular and nerve-related pain and dysfunction.

It is when the above patient is not improving within the expected time frame that we practice our interventional skills. Epidural steroid injections, facet joint treatments, trigger-point and peripheral injections, neurolysis procedures, sympathetic blocks and neurostimulation devices can all be effective in the appropriate settings. Prior to this, we normally need advanced diagnostic tests. This would include MRI, CT, SPECT CT, EMG/NCS and often blood work. As physiatrists, we are proud of our manual diagnostic skills as well. The exam and advanced testing are specific to the part of the neck, the back or the other body part affected.

Medical ultrasound is traditionally thought of in the context of abdominal, vascular and obstetric medicine. Advances in technology and experience have led to ultrasound uses in musculo-



skeletal medicine. Our pain management physicians utilize ultrasound to visualize superficial structures such as nerves, muscles, tendons and ligaments. This allows for more specific and detailed diagnoses as well as very accurate placement of medication via injections. Perhaps the best advantage of ultrasound is its safety, because there is no radiation emitted.

The International Association for the Study of Pain has a widely used definition: "Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage." This emotional experience is why psychology is another important discipline within our multifaceted approach to the spine and pain. There are many excellent pain psychologists here in the Coachella Valley. We have close contact with these important providers, because their input and ability to help with pain management is invaluable.

The most common diagnoses we see are degenerative conditions of the spine. Degenerative disk disease, spinal stenosis, herniated intervertebral disks, spondylosis/spondylolisthesis and arthritic conditions of the spine are the maladies typically diagnosed and treated. Other conditions, often secondary to these, include myofascial pain disorders, trigger points, sacroiliac disorder, radiculopathy, chronic low-back pain and chronic pain syndrome. Some patients who have already undergone multidisciplinary treatment strategies and even surgery can, unfortunately, still have ongoing symptoms. This can represent a challenge, but technology such as spinal cord stimulation can be instrumental in improving function and pain levels. This is just one additional instrument we have within our vast armamentarium for pain and spinal disorders at Eisenhower.

Eisenhower strives to provide a holistic and comprehensive treatment for pain. We have all the tools available within traditional, modern and alternative medicine. If a certain pain management regimen is not working, a different avenue can be easily taken. ■



“I feel as if I have his undivided attention.”

*After suffering for some time with sciatic nerve pain and seeing various medical professionals, Barbara Tompkins finally ended up in the office of P. Jeffrey Smith, DO, at Eisenhower Desert Orthopedic Center. “I had been seeing another physician and didn’t think I was getting the care I needed, so I got in touch with Dr. Smith. He is so very caring, listens to what I have to say and isn’t distracted when I see him. I feel as if I have his undivided attention,” Mrs. Tompkins says.*

*Mrs. Tompkins’ treatment includes a medley of injections, radiofrequency ablation, epidural injections and a thorough multidisciplinary approach. “I realize that I will always have sciatic pain, but Dr. Smith and I are managing it so the pain does not become the focus of all my energy,” Mrs. Tompkins states. She has also developed upper-back pain. “We are trying to figure out where this pain is coming from through a series of tests and treatments,” Mrs. Tompkins says. “What I appreciate about his care most is that I see him when I need to. If my pain flares up, I call for an appointment.”*

*Dr. Smith says, “She’s done well with the treatments. She has and continues to undergo a comprehensive pain plan including therapy medications and injections, as well as seeing a pain psychologist to deal with the anxiety that comes with the chronic nature of her pain. Mrs. Tompkins still needs to see me intermittently, and we continue to improve her quality of life and maintain her lifestyle.”*



## EISENHOWER DESERT ORTHOPEDIC CENTER

# Spine Specialists



### **Hazmer Cassim, DO, DABPM** Physical Medicine and Rehabilitation



Hazmer Cassim, DO, DABPM, is a board-certified physiatrist with additional certification in pain management from the American Board of Pain Medicine (ABPM). He earned his medical degree at NOVA Southeastern Medical School in Florida and completed his residency in physical medicine and rehabilitation (PM&R) at the University of Minnesota, where he served as chief resident. He continued on to complete his pain and interventional management fellowship training at the University of Minnesota, Riverside.

Dr. Cassim then worked in private practice in Minneapolis, Minnesota, where he collaborated on a multidisciplinary team treating a diverse group of pain conditions, focusing on spinal mediated pain. He specializes in interventional injection and implantable therapies for pain. He also worked as a primary and sub-investigator for Medical Applied Research Center (MARC) with patient-centered

research studies to help improve clinical treatment and outcomes related to pain.

Dr. Cassim is an active member of the American Academy of Physical Medicine and Rehabilitation (AAPMR), the American Society of Interventional Pain Physicians (ASIPP) and the American Osteopathic Association (AOA).

Dr. Cassim is pleased to make the Coachella Valley community his home and to be a part of Eisenhower Desert Orthopedic Center. In his free time, he enjoys travel, fitness, spending time with family and friends, and scuba diving.

*"Improving lives by managing pain — that's what I do."*

For information regarding procedures, you can also visit our website at [www.desertortho.com/pain-management-california.html](http://www.desertortho.com/pain-management-california.html).

### **Reginald Fayssoux, MD** Spinal Surgeon



Reginald Fayssoux, MD, is a fellowship-trained orthopedic spinal surgeon who specializes in the operative and nonoperative care of patients with problems related to their spines.

Dr. Fayssoux obtained his medical degree and completed his orthopedic residency in Philadelphia, Pennsylvania. He was elected to the Alpha Omega Alpha Honor Society during medical school and, as a resident, was involved in research at the Shriners Hospital for Children and the renowned Rothman Orthopaedic Institute.

Dr. Fayssoux went on to complete his fellowship training in adult and pediatric spinal surgery at the Emory University Spine Center in Atlanta, Georgia, one of the most prestigious and sought-after spine fellowships in the country. His training focused on the operative and nonoperative management of complex spinal conditions from the neck to the tailbone, including advanced techniques in spinal

reconstruction, scoliosis surgery, and the use of motion-sparing and minimally invasive technologies.

Dr. Fayssoux has authored numerous articles and book chapters related to both the operative and non-operative management of adult and pediatric spinal conditions. His areas of particular interest include the treatment of cervical (neck) and lumbar (low-back) degenerative disease, scoliosis, revision surgery and minimally invasive surgery. His current research interests include returns to golf after back injuries and after spinal surgeries. He is currently pursuing research with the PGA on these topics. In his spare time, Dr. Fayssoux is a volunteer spine surgeon at Shriners Hospital for Children in Los Angeles.

*"The care of the patient suffering from the pain of a pinched nerve or a degenerative disk is medically complex. The most rewarding part of my job is the time I get to spend with my patients guiding them through this complicated decision-making process."*

**P. Jeffrey  
Smith, DO**  
**Physical Medicine  
and Rehabilitation**



P. Jeffrey Smith, DO, is a fellowship-trained pain management and interventional spine specialist and is board-certified in physical medicine and rehabilitation.

Dr. Smith is a graduate of the University of Michigan, where he received the chancellor's scholarship during his undergraduate years. He attended medical school at the College of Osteopathic Medicine of the Pacific in Southern California. His internship training was at Botsford General Hospital in Farmington Hills, Michigan, which was followed by residency training in physical medicine and rehabilitation at the University of Minnesota.

Dr. Smith completed his fellowship in central California at LAGS Spine and SportsCare. He has been involved in research projects and presentations on spinal injections, musculoskeletal ultrasound, spasticity management and pain management.

Dr. Smith was raised in Michigan and is very proud of his Midwestern roots. He grew up as an avid outdoorsman and athlete and enjoys backpacking, mountain biking, fishing, weight training, running, snowboarding and skiing. "The desert region is very inviting because of the opportunity for my family to participate in the activities we enjoy," Dr. Smith says.

Dr. Smith is an active member of the American Academy of Physical Medicine and Rehabilitation, the American Academy of Pain Medicine, the American Association of Neuromuscular and Electrodiagnostic Medicine, the International Spine Intervention Society, the Association of Academic Physiatrists and the American Osteopathic Association.

*"Physical medicine and rehabilitation with spine care and pain subspecialty are especially rewarding because the treatments alleviate pain and improve function, helping people return to a productive and active lifestyle."*

**A. David  
Tahernia, MD**  
**Director of the  
Comprehensive  
Spine Center**



A. David Tahernia, MD, is a board-certified, fellowship-trained orthopedic spinal surgeon. In 2003, he joined Eisenhower Desert Orthopedic Center, where he is the director of the Comprehensive Spine Center.

Raised in Tulsa, Oklahoma, Dr. Tahernia comes from a medical family: his father was a pediatric cardiologist, and his mother was a registered nurse. He attended the University of Tulsa and graduated magna cum laude. He was honored by the University of Tulsa as Man of the Year. He is also a charter member of Phi Beta Kappa.

Dr. Tahernia earned his medical degree and completed his internship and residency at the University of Pennsylvania. It was there that his interest in spinal surgery evolved. "I found every

facet of spinal surgery to be fascinating, from the complex anatomy, to the wide variety of disease processes," he says. During his time at the University of Pennsylvania, he also received the Stanley Chung Award for Excellence in Orthopedic Research.

Dr. Tahernia completed his fellowship in spinal surgery at the University of Colorado and has co-authored numerous articles and delivered regional and national presentations. He is actively involved in several clinical research projects evaluating cutting-edge treatments for a variety of spinal disorders.

*"The field of spinal surgery is extremely rewarding and continually evolving. The most satisfying part of my work is having the opportunity to improve my patient's quality of life, either through conservative modalities or with surgical intervention."*



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# STICK IT TO PAIN

by Deidre Braun, M.S., L.Ac.

Back pain is the most common reason people seek health care. Twenty-two million Americans will report having back pain lasting at least one week.

Common causes of cervical, thoracic or lumbar pain responsive to acupuncture are acute/chronic back and neck pain, muscle sprains and strains, herniated disk, sciatica, arthritis, spondylolisthesis, mild/moderate stenosis, and radicular (leg pain).

Acupuncture is also effective in treating sports injuries, headaches, joint pain, shingles, neuropathy, allergies, addictions, facial rejuvenation and stress.

Several mechanisms have been identified by researchers to explain the effects of acupuncture. Acupuncture stimulates the release of endorphins to relieve pain, activates the immune system and triggers natural opioids in the brain that relieve pain and promote sleep. Acupuncture also prompts the release of neurotransmitters and hormones that positively affect health and overall well-being.<sup>1</sup>

*Acupuncture is also effective in treating sports injuries, headaches, joint pain, shingles, neuropathy, allergies, addictions, facial rejuvenation and stress.*

According to traditional Chinese medicine (TCM) theory, the kidney and bladder meridians govern the spine. When the kidney's yin or yang is deficient, this may have a negative effect on the acupuncture channels on the posterior of the body, resulting in back pain, weakness and/or stiffness.<sup>2</sup>



The body's chi, or vital energy, must flow freely for optimum health. Any obstruction of the free flow of chi in the back will result in moderate pain and stiffness. As TCM associates the liver with negative emotions, such as stress, frustration and anger, it is frequently observed that back pain is brought on by emotional triggers, such as premenstrual syndrome.<sup>2</sup>

A severe form of chi impediment is blood stagnation in the lower back that can result in a severe stabbing pain with movement or rest. This is a result of long-term chi stagnation, which eventu-

ally causes blood flow in the affected area to effectively stop. Blood stagnation in the lower back may occur as a result of physical problems, such as injury due to a fall, an impact, exposure to cold wind or overwork, and emotional problems, such as long-term stress.<sup>2</sup>

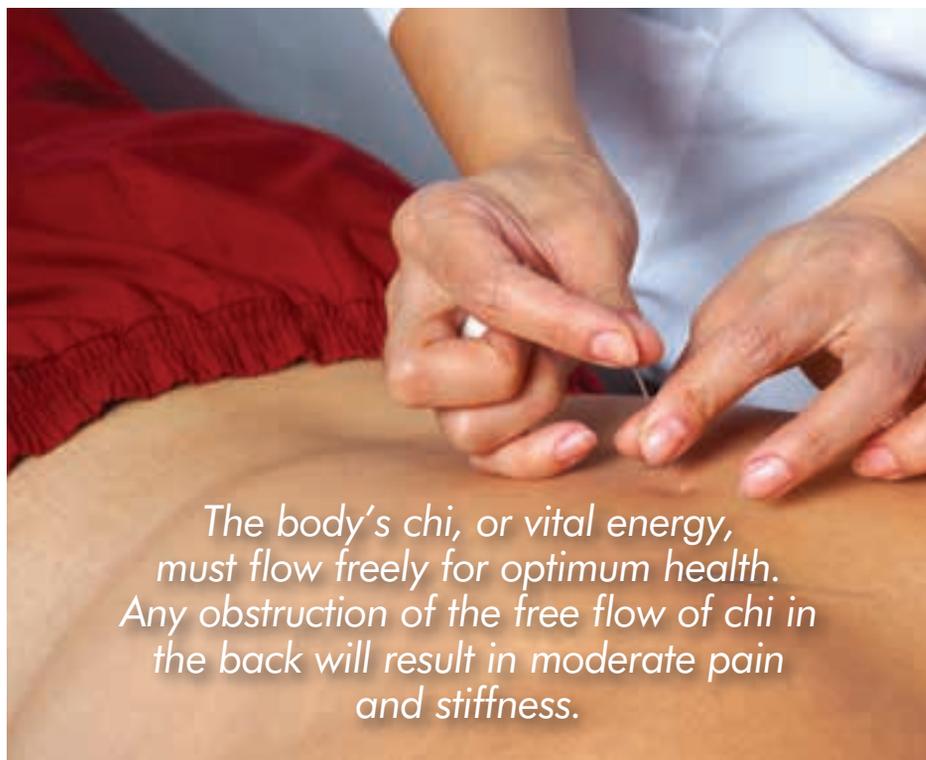
According to TCM theory, the kidneys are susceptible to wind cold or damp cold when the lower back is frequently exposed to cold or damp weather. This can result in weakening of the kidney yang energies and, as cold impedes movement, eventual stagnation of chi in the affected area. Cold invasion may

be accompanied by symptoms including a feeling of cold tightness in the lower back, frequent urination and low energy.<sup>2</sup>

Acupuncture needles are very thin, so getting stuck usually causes very little discomfort. Between five and 20 needles are used in a typical treatment and may take place over a period of several weeks. Some insurance companies cover acupuncture.<sup>3</sup> ■

#### Resources

1. "Acupuncture." Whitaker Wellness Institute Medical Clinic. [www.whitakerwellness.com/therapies/acupuncture-therapy](http://www.whitakerwellness.com/therapies/acupuncture-therapy).
2. "Back Pain." Balanced Body Acupuncture & Chiropractic. <http://balancedbodyomaha.com/back-pain-balanced-body-acupuncture-chiropractic-omaha/>.
3. "Acupuncture." Mayo Clinic. [www.mayoclinic.com/health/acupuncture/MY00946](http://www.mayoclinic.com/health/acupuncture/MY00946).



*The body's chi, or vital energy, must flow freely for optimum health. Any obstruction of the free flow of chi in the back will result in moderate pain and stiffness.*

### **Deidre Braun, M.S., L.Ac. Acupuncturist/ Herbalist**



Deidre K. Braun, M.S., L.Ac., is a fellowship-trained acupuncturist and herbalist who has been practicing at Eisenhower Desert Orthopedic Center since 1999. Prior to coming to DOC, she had her own acupuncture practice in Torrance, California.

A native of Southern California, Braun earned her master's degree in acupuncture and traditional Chinese medicine from Yo-San University in Santa Monica, California. Following an internship at Yo-San, she conducted a fellowship in acupuncture at the Luzhou Medical College and Beijing Traditional Chinese Medicine Hospital in China. In 1997, she began a 20-month study at UCLA with the Laboratory for the Study of Addictions to determine acupuncture's effectiveness in treating the symptoms of withdrawal.

Braun is licensed by the state of California and by the National Council for Certification of Acupuncturists. Additionally, she has taught at Samra University in Los Angeles and Yo-San University.

Acupuncture can provide effective pain relief for a variety of conditions, including arthritis, osteoarthritis, carpal tunnel syndrome,

low-back pain, joint pain, sports injuries, headaches, migraine, PMS, sinusitis and asthma, as well as other disorders. Most major private insurance companies cover a percentage of acupuncture treatments.

Braun sees patients at Eisenhower Desert Orthopedic Center's Rancho Mirage facility. An allied health professional with staff privileges at Eisenhower Medical Center, she also provides acupuncture services to chemotherapy patients (to reduce nausea and other side effects), as well as to post-operative patients (to lower pain and promote healing). Braun also offers pain management consulting to physicians and their patients.

She has led two acupuncture studies at Eisenhower Medical Center for hip- and knee-joint replacements. The results showed the patients' pain scores were down by 35 percent on day one post-op and 50 percent on day three post-op. Data from the shoulder replacement study will be available soon.

*"Acupuncture is a time-tested method for alleviating pain and discomfort from a variety of conditions. Most patients describe the sessions as pleasant and relaxing with great results."*

# What Makes Spinal Surgery Successful?

## A Clear Diagnosis and a Well-Executed Plan



by A. David  
Tahernia, MD

Patients always ask me, among other things, what the success rate of a particular surgery is. I first ask them how to define success. I define success as the ability to alleviate their pain and disability to an extent that markedly improves their quality of life. No one should undergo surgery with minimal disability

that doesn't affect one's activities of daily living. When that threshold is crossed, then surgery becomes an option.

There are very few spinal disorders that require surgery without an attempt at conservative measures. Generally, these would include mechanical compression of nerve structures with already-compromised and deteriorating function and a risk of permanent disability or nerve damage. When that scenario does not exist, there are a number of nonsurgical options that our team at the Comprehensive Spine Center can recommend. When those fail, however, surgery can be extremely effective and predictable. Four criteria need to be met to have a successful outcome:

1. The diagnosis must be accurate to the greatest degree possible.
2. The problem should be mechanical, i.e., pressure on a nerve or an unstable spinal segment.
3. Imaging studies must confirm the problem and match the symptoms. This usually requires an MRI and X-rays or a CT scan.
4. The surgery must be well-executed, with a postoperative plan to restore function.

A very high success rate is the norm when these four criteria are achieved.

When surgery is recommended, what exactly does the surgeon do? Generally speaking, there are two types of surgeries — those that take pressure off pinched nerves and those that stabilize, replace or realign unstable, painful or misaligned spinal segments. These can occur in the neck (cervical), mid-back (thoracic) or the low-back (lumbar) region.

The most common type of spinal surgery involves removing bone, disk material or other structures that are putting pressure on nerves. The two disease processes that are the culprits are stenosis or a herniated disk, or both. Typically, a patient will describe pain, numbness or weakness in the arm or leg. An MRI or CT scan will demonstrate the area of compression. Stenosis refers to a narrowing of the spinal canal leading to pressure on nerves.

Stenosis usually occurs in older individuals and is commonly due to degeneration of the spine. A herniated disk occurs in patients typically between the ages of 30 and 50, though there certainly are variations in age. After conservative options have failed, your surgeon will discuss options with you and come up with the best surgical plan. The surgeries that address these problems are straightforward with a relatively short recovery period. In selected cases, our patients can go home the same day of the surgery.



Sometimes, stenosis or a herniated disk may be accompanied by an unstable spinal segment or a scoliosis. In these instances, stabilizing the bones as well will provide the best long-term results. One of the most common "instabilities" I see in my practice is a spondylolisthesis, which refers to a forward slippage of one bone next to another and most commonly occurs at the second to the lower segment in the lumbar spine. There are a number of options to deal with the slippage and accompanying stenosis, and we have at our disposal the latest technology available. We employ all the most minimally invasive, up-to-date techniques to achieve our surgical goals. Depending on the disease process, the spine can be approached from the front of the body (anterior), the side (lateral) or the back (posterior). When surgery is your best option, we will go over treatment options with you and design a plan that addresses the problem in an effective and timely manner. Whether you are an elite or weekend athlete or you simply want to run household errands with less pain, our Comprehensive Spine Center is here to help you. ■

**"Dr. Tahernia gave me my life back."**

*"Before Dr. Tahernia performed my back surgery in February, I was using a walker. I'm now able to play tennis and golf again. Dr. Tahernia gave me my life back. He is caring and very involved. He stayed in touch with my husband, making sure I was comfortable. If I ever have another problem, I will definitely go back to Dr. Tahernia before anyone else."*

Linda Lechlitter





# SPINAL CORD STIMULATION

## A Highly Effective Chronic-Pain Treatment



by P. Jeffrey  
Smith, DO

Pain can be a debilitating and relentless condition. Often, spine- and chronic-pain conditions and the treatments related to them can be unpredictable. When all else fails, there is still hope for many people. Spinal cord stimulation (SCS) offers an FDA-approved and reversible therapy that consists of a fairly simple process. Patient selection and education is fundamental to the efficacy of SCS. A temporary trial of SCS is performed in a simple percutaneous (injection-like) procedure, and the system is kept in place for five to seven days.

If the patient has a successful trial, a system is implanted via an outpatient surgery.

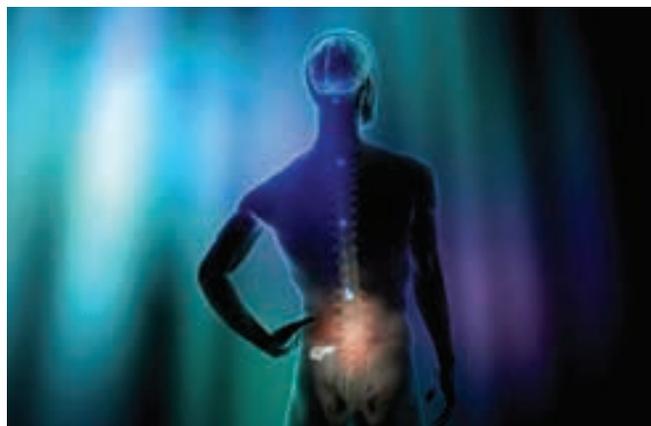
SCS technology has advanced dramatically in recent years and offers an option to dramatically reduce pain levels, improve function and activity, and reduce medication needs. The effect of spinal cord stimulation is via a controllable electrical signal directly applied to the spinal cord. This signal does not destroy or harm tissue. It works by masking pain symptoms through an intricate interaction of nerve cells and the signal produced by SCS.

Diagnoses and disorders amendable by spinal cord stimulation include the following:

- Complex regional pain syndrome
- Reflex sympathetic dystrophy

- Cervical, lumbar and cervical radiculopathy (pinched nerves or sciatica)
- Failed back surgery syndrome, post-fusion or -laminectomy
- Peripheral neuropathy
- Peripheral vascular disease (ischemia)
- Postherpetic neuralgia
- Chronic headaches
- Central pain, multiple sclerosis, etc.
- Phantom limb (“stump”) pain
- Angina pectoris
- Arachnoiditis

With additional questions about this cutting-edge technology, please contact Eisenhower Desert Orthopedic Center. ■



# Radiofrequency Rhizotomy



by Hazmer Cassim,  
DO, DABPM

Do you have arthritis? Small joints in the neck and low back, called facet joints, can be a source of pain due to arthritis. These arthritic joints typically cause pain with twisting or extending motions and, on occasion, pain with rest. Radiofrequency rhizotomy is a successful treatment option for pain caused by facet joints.

Facet pain is typically diagnosed through a physical exam and imaging studies. Once the diagnosis is obtained and radiofrequency rhizotomy treatment is considered, confirmation of the diagnosis is essential. For this reason, the process of radiofrequency rhizotomy begins with diagnostic medial-branch blocks.

Medial branches are small nerves that take pain signals from facet joints to the spinal cord. These nerves do not affect sen-

sation or movement. Using live X-ray images through a fluoroscope, the location of the medial branch nerves are identified. Small needles are introduced through the skin and guided with X-rays until they reach the location of the medial branch nerves. Then a small drop of anesthetic is used to block the medial branch nerve's ability to take painful signals from arthritic facet joints to the spinal cord. If facet arthritis is the source of pain, then blockade of the medial branch nerves should provide temporary relief, confirming the diagnosis.

After confirming the diagnosis, it is now time to treat with radiofrequency rhizotomy. The same procedure as the medial-branch blocks is repeated with an additional step. Radiofrequency waves are delivered through the same needles to produce heat, which cauterizes the medial branch nerves. This treatment of radiofrequency rhizotomy of medial branch nerves provides successful relief of back and neck pain.

Radiofrequency rhizotomy is a low-risk, minimally invasive, nonsurgical solution for those having back and neck pain from arthritis. It has a high success rate when the pain source is tested and identified using medial-branch blockade. So, do you have arthritis? Make sure you get the right treatment. ■



by P. Jeffrey  
Smith, DO

## What Is a DO?

An osteopathic physician (DO) differs from an allopathic physician (MD) primarily in relation to medical school. Today, there are 29 osteopathic medical schools in 28 different states. An estimated 4,200 osteopathic physicians join the workforce every year and are trained in all fields of medicine. Nearly one in five medical students currently is enrolled in osteopathic medical school!

DOs can elect to practice any type of medicine, from family practice and internal medicine to every surgical and nonsurgical subspecialty. All states recognize DOs just the same as MDs. Osteopathic physicians prescribe drugs and perform surgeries just as MDs but also bring additional benefits from their training by focusing on health education and disease/injury prevention. Furthermore, osteopathic manual medicine allows DOs to practice keen hands-on diagnostic skills and manipulative techniques in order to restore proper bodily structure and func-

tion. This allows the body's natural healing process to take over. Osteopaths also take part in cutting-edge technological breakthroughs and research in all facets of medicine. All these abilities allow the more than 63,000 licensed osteopathic physicians in the country to practice a patient-centered, holistic and modern approach to medicine.

For more information, please visit [www.aacom.org/about/osteomed/Pages/default.aspx](http://www.aacom.org/about/osteomed/Pages/default.aspx). ■

# How Physical Therapy Is Beneficial to Spine Care and Pain Management



by Paige Larson, MPT

Physical therapy is an integral part of the healing process for patients with back pain. Collaboration between physicians and therapists is essential for planning the most effective and rapid return to pre-injury levels and the quality of life the patient is accustomed to.

At the Eisenhower Desert Orthopedic Center (EDOC), our therapists team up with the physicians to develop protocols

for nonsurgical and surgical care, present information at community seminars on the benefits of physical therapy alongside the physicians, and observe procedures and surgeries to gain a better understanding and foster a team environment.

Dictation from the patient's most recent office visit with the referring physician is available at the time of the patient's first therapy visit at EDOC. A thorough history, medications, diagnostic tests and a comprehensive plan of care allow the therapist to have a complete picture of the patient and provide a foundation for functional recovery.

Whether the back injury is chronic, acute, a surgical case or a procedural case, physical therapy is necessary to diminish pain and strengthen core muscles. Manual, active and palliative care techniques are utilized to accomplish these goals, and their use is dependent on

patient progress and response to treatment. Strengthening lumbar extensors and overall core muscles provides improved stability and strength to decrease unwanted forces and stresses on nerves and discs within the spine. In the case of a patient having a detrimental change in symptoms, it is often the physical therapist who is first to take note and capitalize on the team concept to return the patient to the physician for further evaluation. This immediate communication is essential for the best patient outcomes.

Physical therapists are reliant on physicians and surgeons to refer patients, and it is the responsibility of the therapists to work closely with these doctors to provide the highest quality of care to these patients. Once the diagnosis has been made, the real work starts in therapy — and, together, when working as a team, the patient has the best chance of a favorable outcome. ■



# STOP LIVING IN PAIN



by Hazmer Cassim,  
DO, DABPM

Active, happy lives can be dramatically limited by pain. An abrupt injury or gradual wear and tear can transform the human body, resulting in suffering that is subjective, unique to each individual and difficult to measure. The

desire to help individuals suffering from pain led to the creation of a new field within medicine — the field of pain management.

Pain management focuses on precision guided treatments with the goal of identifying the “primary pain generator,” or the main reason an individual experiences pain. In some instances, identifying this primary pain generator is relatively simple. In these cases, response to treatment is immediate, and the return to a healthy active life occurs rapidly. However, when there are many causes for pain, identifying the primary pain generator and returning individuals to a pre-pain state can be complicated. In the late 20th century, advances in technology and the invention of movable X-ray machines, or fluoroscopes, revolutionized the diagnosis and treatment of pain. The use of live X-rays made it possible to clearly visualize anatomical regions and introduce diagnostic and sometimes therapeutic medicines into localized areas to treat pain.

The common and earliest use of X-rays in the field of pain management was with epidural injections. Epidural injections are a combination of an anti-inflammatory medicine, typically a steroid, and a local anesthetic, introduced into specific areas in the spine with precision. These injections help to treat pain but also identify specific anatomical structures that may be the primary pain generator. Live fluoroscopically guided injections are also used to put medicine in sympathetic nerves. These sympathetic nerve injections led to the identification and treatment of pain conditions that did not respond to traditional care. By treating the sympathetic nerve bundles, or ganglia, physicians were able to bring relief to a new population of those suffering in pain.

Encouraged by the success of epidural and sympathetic injections, pain management physicians sought to identify other areas where traditional care had been unsuccessful. Techniques for pain management were introduced consisting of focused heat pulses, radiofrequency rhizotomy and freezing techniques, i.e., cryoablation. These technological advances offered the ability to introduce heat or cold in specific regions of the body with X-ray guidance, to either cauterize or freeze damaged and painful nerves. Radiofrequency ablation and cryoablation became successful ways to help identify and treat certain pain generators that previously were untreatable.

Despite all available tools to identify primary pain generators and provide treatment, there still remained a group of individuals who continued to suffer with pain. This category of individuals responded poorly to treatments or simply had too many generators of pain. In response to this need, spinal cord stimulation (SCS), peripheral nerve stimulation (PNS) and intrathecal drug delivery systems (IDDS) were created. These new technologies were used as implanted “pacemakers” for pain and came to be known as neuromodulation. These modes of pain management deliver constant pain therapy at the spinal level through focused medication or electrical current and have been successful.

Technological advances have created many new options to help those suffering in pain. It is now possible to visualize the primary pain generator and deliver precision-guided therapies in the forms of rhizotomy, cryoablation, and sympathetic or epidural injections. Modulating pain with the use of “pacemakers” can also be accomplished in today’s world. Still, many continue to suffer with pain, unaware of all treatment options available. With the desire to help those in pain regain a life of normalcy and ease individual suffering, we focus on educating those who are living with pain so that they can obtain the help they need. As time carries us into the future, we enter a new world of infinite possibilities — a future with hope for all suffering in pain. ■

**“He’s got to be one of the best doctors anywhere.”**

*Before meeting Dr. Hazmer Cassim, Tom West had nearly given up on ever getting any relief from the debilitating, chronic back pain that started before he was 20 years old. “Now, at 48, my spine probably looks like that of a 70-year-old,” West said.*

*West explained that his back problems stem from spinal stenosis, a narrowing of the open spaces within the spine that can put pressure on the spinal cord and nerves that travel through the spine, combined with osteoarthritis, which has fused some of his vertebrae together. “It’s due in good part to genetics — exacerbated by my active, physical lifestyle.”*

*To date, West has undergone epidural injections with no recurrence of pain in the treated areas. “It works,” he said. “I felt relief after three days. I was able to ride my bike again — 10 miles my first time out. I’m doing a lot of walking and hiking too.”*

*West praises Dr. Cassim’s medical skills as well as the compassionate care, personal attention and time he gives his patients. “I sing his praises to everyone,” West said. “He’s amazing. He’s got to be one of the best doctors anywhere. I have a lot of faith in him.”*



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Founded in 1976, Desert Orthopedic Center is a multisubspecialty regional orthopedic practice comprised of orthopedic surgeons, physiatrists, a podiatrist and acupuncturist. Our physicians have staff privileges at all Coachella Valley hospitals. Between our three desert offices, we see more than 100,000 patients annually and perform more than 5,000 surgical procedures per year.

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Foot and Ankle  
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*For all appointments and inquiries, please call (760) 568-2684.*