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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: P. Jeffrey Smith, DO; A. David Tahernia, MD; Hazmer Cassim, DO, DABPM; Donald J. Greco, MD; and Reginald Fayssoux, MD

#### DIRECTOR'S LETTER

# The Paradigm in Spinal Care Collaboration Among Providers



Welcome to the fourth edition of the Eisenhower Desert Orthopedic Center's magazine and the second edition on spine care. 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 costs 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 optimal care is to collaborate with providers from different educational backgrounds and a broad range of expertise. At Eisenhower Desert Orthopedic Center, we offer surgery, pain management, physical therapy, 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. Cassim, Smith and Greco will explore myriad nonsurgical treatment options to decrease pain and improve function. Paige Larson will explain how physical therapy plays a role in 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 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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# ORTHOPEDICS



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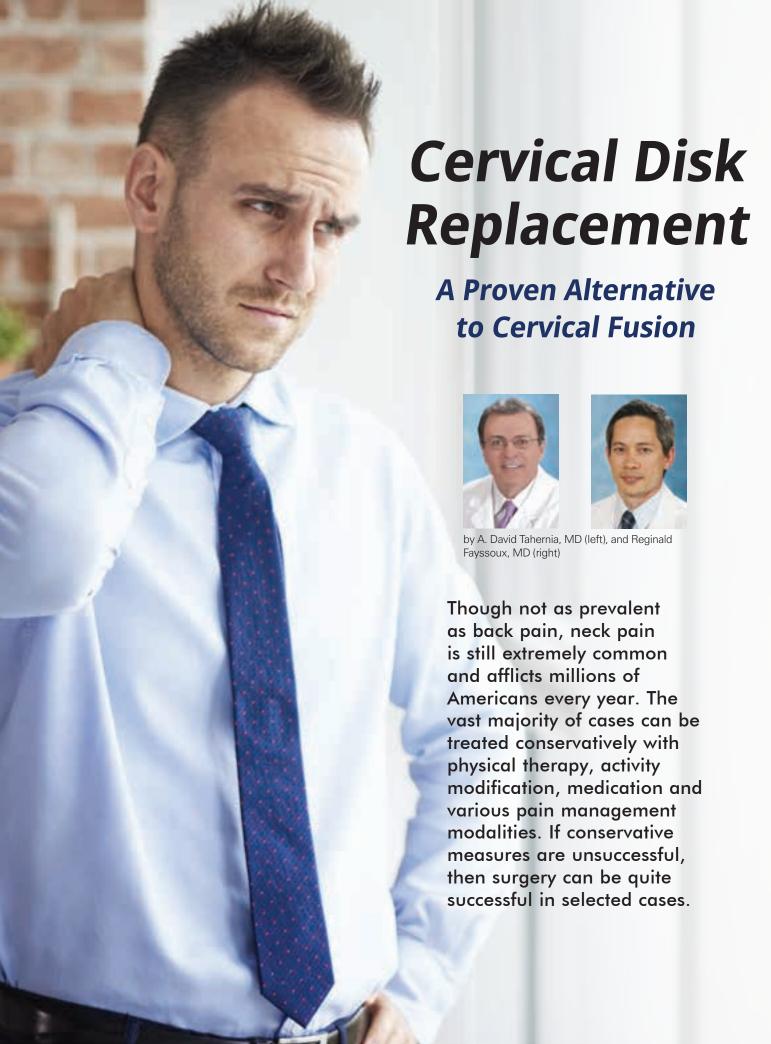
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Managing Pain: A New Hope

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raditionally, the majority of cervical spinal surgeries are performed by addressing the problem (usually a bone spur or herniated disk) through an incision made in the front of the neck, known as an anterior approach. The technique, by its nature, is minimally invasive, with little tissue disruption encountered to complete the task at hand. For decades, the procedure included removal of the disk or bone spur, combined with performing a fusion across the operated levels. For example, if the disk between the fifth and sixth vertebrae was removed, then the two bones would be fused together using a piece of bone or other graft, usually combined with a plate and screws to hold everything together (Figure 1).

This time-honored technique has been perfected by surgeons for decades with a high clinical success rate. However, potential drawbacks to a cervical fusion are loss of motion of the neck and transfer of stresses to nonfused levels. This may predispose the other levels to wear out more quickly, leading to additional surgery as one ages. In the 2000s, as technology evolved, many devices were developed to replace the old fusion surgery with an alternative to maintain





Figure 1. Two views of the cervical spine after an anterior cervical discectomy and fusion (ACDF): (a) frontal view and (b) lateral view.





Figure 3. X-rays of a patient from our study now 10 years post-procedure (a) extending and (b) flexing her neck. The prosthesis is functioning perfectly.

motion across the operated levels in the cervical spine. Hence, the age of cervical disk replacement was born.

We were fortunate to participate in one of those early trials to determine whether this new technology would be as effective or even better than traditional methods. Eisenhower Desert Orthopedic Center was one of approximately 20 sites nationwide to participate in the Mobi-C cervical disk replacement trial. The device is made of two pieces of metal with a plastic core in between. It is "press fit" into the disk space, and various dimensions are available to ensure proper sizing (Figure 2).

We and our colleagues collected data on outcomes and submitted it to the Food and Drug Administration (FDA) for approval, which was achieved in 2013. The data indicated that the procedure is as good or better than a fusion in properly selected patients. We now routinely perform the procedure on properly selected patients with excellent clinical results. The FDA and Medicare have approved the device for one- and two-level surgeries, and the private insurance companies are authorizing their use in selected cases too.

We have just completed data collection on patients who had the device implanted as long as 10 years ago and are delighted to see that the technology has stood the test of time (Figure 3). Most of our patients are candidates for a one-level procedure, though some patients may need two surgical levels to fix the

problem. Many of the patients having this procedure can go home the day of surgery (outpatient) and can resume full activities within six weeks following the procedure.

As surgeons, we always ask ourselves, "What would I have done if I had the same problem as you (the patient)?" The answer should be, "If this were my neck, I would have the same surgery I am recommending for you!" With our extensive experience with cervical disk replacement, the answer is easy and a resounding: "I would want a disk replacement if it is a viable option for me."

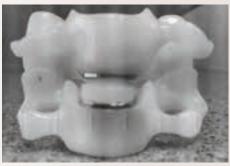






Figure 2. Model depicting (a) the Mobi-C prosthesis, made of metal end plates and a plastic core or center, and (b) X-rays with the prosthesis after recent surgical insertion.





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 they define success. I define success as the ability to lower their level of pain and disability to an extent that markedly improves their quality of life. No one should undergo surgery for 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 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 should 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), midback (thoracic) or 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 as the surgery.

Sometimes, stenosis or a herniated disk may be accompanied with an unstable spinal segment or 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. This term refers to

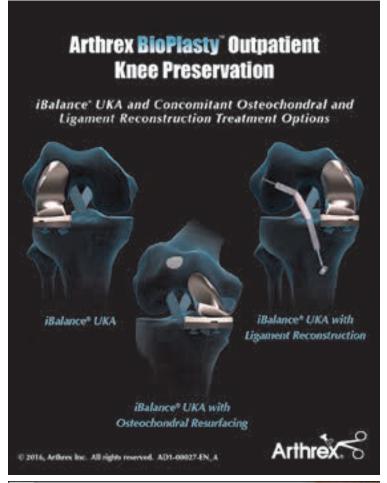
No one should undergo surgery for minimal disability that doesn't affect one's activities of daily living.

a forward slippage of one bone next to another and most commonly occurs at the second to the lowest 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 simply want to run household errands with less pain, our Comprehensive Spine Center is here to help you.

#### "Thank you, Dr. Tahernia."

I had zero pain after surgery, even after the anesthesia wore off. I was restricted in my activities for the first few months, especially when it came to twisting, bending and lifting. But I was back to driving within two weeks, sitting in a car seat with good back support and being careful getting in and out. ... I know [Dr. Tahernia] does a careful evaluation and really nails the problem. He provides A-plus care, clear instructions about what to do and not to do after surgery, and excellent follow-up.

John White





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by P. Jeffrey Smith, DO (left), and Donald J. Greco, MD (right)

Pain can be a debilitating and relentless condition. Often, spinal 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 a Food and Drug Administration (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) pro-

cedure, 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. The effect of SCS 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.

SCS technology has advanced dramatically in recent years. We are proud to be on the cutting edge of new stimulation modalities. Newly proven technology allows higher success rates. Innovative types of neurostimulation include new targets, such as the dorsal root ganglion (DRG); high-frequency stimulation (Abbott BurstDR and Nevro HF10); position-dependent stimulation (Medtronic RestoreSensor); upgradeable implants; new arrays of electrodes; and ever-improving nanotechnology.

Diagnoses and disorders amenable to 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, postfusion or laminectomy
- Peripheral neuropathy
- Peripheral vascular disease (ischemia)
- Postherpetic neuralgia
- Chronic headaches
- Central pain, multiple sclerosis, etc.
- Phantom limb ("stump") pain
- Angina pectoris
- Arachnoiditis

Please contact Eisenhower Desert Orthopedic Center with additional questions about this cutting-edge technology.

#### "Thank you, Dr. Greco."

The difference is night and day. They said, 'Oh, you'll be really sore for four days,' but it was nothing compared to the pain he took away. I can go upstairs and downstairs now. Before, I could not. I can walk, and I've gone back to the gym. I've lost 17 pounds just because I can move so much more. I hadn't slept over five or six hours a night in years, and now I'm sleeping seven or eight hours. I don't need to nap every day, and I can keep up with my husband! One thing about Dr. Greco is he does listen to you. He looks at your overall health and not just that one little point. He doesn't say, 'Let me give you the shot and get you out of here.'

Lynn Muslovski

# Physical Therapy After Radiofrequency Ablation



by Paige Larson, MPT

Radiofrequency ablation (RFA) is a minimally invasive procedure used to reduce neck and back pain. The most common candidates for an RFA include those suffering from chronic spinal pain and those with pain

related to arthritis from degenerative joints. RFA involves inserting a needle guided by a fluoroscopic X-ray into the area experiencing pain, and then using a microelectrode to heat the nerve (also known as burning the nerve) so it can no longer generate and transmit pain signals to your brain. The selected nerve only transmits pain signals and is not responsible for any motor (muscle) control. Once the nerve is ablated, relief is often experienced and can last 12 to 24 months.

Following the 20- to 30-minute procedure, you will be released within hours and can return to work within one to two days. Initially, rigorous and strenuous activity is contraindicated while normal activities of daily living are encouraged. A small bandage, which can be removed hours after the procedure, will be placed over the insertion site.

Physical therapy (PT) is an integral part of your recovery after an RFA. An individualized treatment plan will be created for you on your first visit and will be tailored to your specific areas of impairments and limitations. Therapy will initially focus on controlling your pain via modalities such as heat (hot packs and ultrasound), cold packs and massage, and electrical modalities, such as transcutaneous electrical nerve stimulation (TENS) or interferential electrical stimulation, to decrease your symptoms. Progression into strengthening is the next step since chronic pain leading up to your RFA can often cause muscles in the affected area to shut down and become weak. Following your procedure, PT will assist in restoring strength to your muscles and improving your overall function. This will involve focusing on your core muscles, especially the deep layers in your lower back and abdomen. Starting with light contractions of these muscles and leading up to more



aggressive activation and functional facilitation, restoring strength to stabilize and support the spine is key to restoring a healthy spine. Posture will also be assessed as part of the care plan because maintaining proper posture can decrease the stress on your spine while also encouraging your core muscles to activate and work more efficiently.

PT will last approximately four to 12 weeks based on your initial assessment and rate of individual progression. During treatment, your physical therapist will implement a home exercise program as an adjunct to your in-clinic care plan. Upon discharge from PT, it is imperative these exercises are continued to maintain a healthy spine and decrease the likelihood of recurring symptoms.

The physical therapists at Eisenhower Desert Orthopedic Center have treated hundreds of RFA patients between our two locations in La Quinta and Rancho Mirage. For more information on PT after an RFA, contact us at (760) 766-2573.



#### Spine and Pain Specialists

# 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 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, a pediatric cardiologist, and his mother, 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 said. 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 most satisfying part of my work is having the opportunity to improve my patients' quality of life, either through conservative modalities or with surgical intervention."

#### Reginald Fayssoux, MD Orthopedic Surgery



Reginald Fayssoux, MD, is a fellowship-trained orthopedic spinal surgeon. He earned his medical degree and completed his residency at Drexel University College of Medicine in Philadelphia, where he served as resident liaison with the American Academy of Orthopaedic Surgery and on the Resident Advisory Board for Clinical Orthopaedics and Related Research. Additionally, Dr. Fayssoux trained at Philadelphia Shriner's Hospital for Children under world-renowned scoliosis surgeon Randal Betz, MD.

Specializing in complex cervical, thoracic and lumbar spinal reconstruction, scoliosis and minimally invasive surgery, Dr. Fayssoux completed his fellowship in adult and pediatric surgery at the Emory University Spine Center — home to several of the current thought leaders in academic spinal surgery.

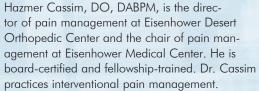
He has co-authored numerous articles and book chapters related to operative techniques in spinal surgery. His areas of particular interest are in the treatment of musculoskeletal tumors and pediatric spinal cord injury.

Dr. Fayssoux is a member of the North American Spine Society, AOSpine and the American Academy of Orthopaedic Surgery.

"I treat everyone as if they were my own family. I am committed to ensuring that every patient and their family have a thorough understanding of their condition and their treatment options."



Hazmer Cassim, DO Chair, Pain Management EMC Director, Pain Management EDOC



He earned his medical degree at Nova
Southeastern University College of Osteopathic
Medicine in Florida and completed his residency in physical medicine and rehabilitation
(PM&R) at the University of Minnesota. He
continued on to complete his pain and interventional management fellowship training at

Dr. Cassim then joined Medical Advanced Pain Specialists (MAPS), in Minneapolis, Minnesota,

the University of Minnesota, Riverside.

where he collaborated on a multidisciplinary team treating a diverse group of pain conditions, focusing on spinal mediated pain. He specializes in comprehensive pain management and implantable therapies for pain. He also worked as a primary and sub-investigator for Medical Applied Research Center (MARC) with patient-centered studies to help improve clinical treatment outcomes related to pain.

Dr. Cassim is pleased to make the Coachella Valley community his home and 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."

Donald J. Greco, MD Pain Management



Donald J. Greco, MD, is board-certified in both anesthesiology and pain medicine and is also a diplomat of the American Board of Anesthesiology. He is a graduate of the University of Missouri-Kansas City School of Medicine and completed his anesthesiology training at the Medical College of Wisconsin. He then subspecialized in pain medicine at the University of Pittsburgh Medical Center, where he became proficient in interventional and medical management of various chronic pain conditions.

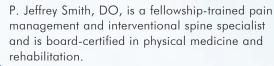
Dr. Greco believes in a comprehensive, multidisciplinary approach to pain management. His objective is to return his patients to a productive life and restore their physical, leisure and psychosocial functions. Dr. Greco makes it a priority to care for patients on a human level by listening and working together toward a tailored treatment plan. Leading-edge pain management technology assists in individualizing his approach to his patients' specific needs to allow them to regain the highest levels possible of functionality and independence. Dr. Greco is an active member of the American Society of Anesthesiologists, the American Society of Interventional Pain Physicians, the International Spine Intervention Society, the American Society of Regional Anesthesia, the North American Neuromodulation Society, the International Federation for Adipose Therapeutics and Science, and the American Medical Association.

With family throughout Southern California and a love for the outdoors, Dr. Greco, his wife and their three children have set roots in the Coachella Valley. They want to thank the community for what has been a very warm welcome since their arrival in the summer of 2013. Besides keeping busy with school activities and the occasional golf and tennis game, the Grecos enjoy traveling, skiing, swimming, hiking, fitness, cooking, and hanging out with friends and family.

"Chronic pain is a debilitating, complex disease that is usually best treated with a multifaceted approach to optimize overall health and well-being."

#### Spine and Pain Specialists

P. Jeffrey Smith, DO
Physical Medicine
and Rehabilitation,
and Pain Management





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 Western University of Health Sciences 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 said.

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."

#### Marianne Dezelan, PA-C



A native of Southern California, Marianne Dezelan, PA-C, earned a Bachelor of Arts degree in psychology from the University of California, Riverside. She is also a graduate of Western University of Health Sciences' physician assistant program in Pomona.

A board-certified physician assistant, Dezelan spent the first five years of her physician assistant career in orthopedic surgery, including surgical assist in spine surgery. In 2003, she transitioned her specialty to pain management, caring for patients with acute and chronic spinal disorders, as well as other pain-related conditions. Dezelan rejoined Eisenhower Desert Orthopedic Center in 2012 as the physician assistant for Dr. P. Jeffrey Smith and Dr. Hazmer

Cassim as part of the Comprehensive Spine Center pain management team.

Dezelan is a member of the California Academy of Physician Assistants (CAPA), the American Academy of Physician Assistants (AAPA) and the American Academy of Pain Medicine (AAPM). She is certified in basic life support and advanced cardiac life support.

In Dezelan's free time, she enjoys traveling and hiking with her husband.

"Listening is the most effective tool when deciding a treatment plan for my patients. My goal is to help you keep moving toward your best quality of life."

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#### Kirt L. Edly, DC, PA-C



Kirt L. Edly, DC, PA-C, has more than 20 years of experience as a health practitioner. He began his education with a Bachelor of Science degree in biology from Central Michigan University, Mount Pleasant, Michigan. Dr. Edly then received training in nuclear health physics I and II from Midland Nuclear Training Center in Midland, Michigan, before completing a doctorate of chiropractic degree and training as a chiropractic sports physician at Palmer College of Chiropractic in Davenport, Iowa.

After several years in chiropractic practice, Dr. Edly continued his education by training to become a physician assistant at John H. Stroger, Jr. Hospital of Cook County, Chicago, Illinois. The training included clinical rotations in trauma, psychology and internal medicine at Cook County Hospital; OB-GYN and general surgery, St.

Francis Hospital; orthopedics, Provident Hospital; pediatric, Advocate Good Samaritan Hospital; and emergency department, Mount Sinai Hospital.

Prior to working at Eisenhower Desert Orthopedic Center, Dr. Edly assisted the late Alan Yasko, MD, a world-renowned orthopedic oncologist at Northwestern Memorial Faculty Foundation. Dr. Edly also worked at the Neurologic and Orthopedic Hospital of Chicago.

Dr. Edly's personal interests include skiing, racquetball, performing magic and travel.

"As an orthopedic assistant or a chiropractic physician, it always gives me great joy to help my patients overcome their musculoskeletal issues so they can return to leading a healthy, active life."

#### Michael Guiles, PA-C



Michael Guiles, PA-C, is a native of Montana, studied at the University of Montana and Montana State University of Billings, and received his Bachelor of Science physician assistant degree from Rocky Mountain College School of Allied Health.

He is a board-certified physician assistant and a member of the American Academy of Physician Assistants. Guiles has previously worked as a neurosurgical physician assistant, an orthopedic spine physician assistant and in an internal medicine practice. Guiles has experience in treating opioid addiction.

In 2002, he served in the Immunization Project in Billings, Montana, administering routine immunizations to hundreds of underserved community members.

Guiles' hobbies include fishing, golf, music and travel.

"Using the five pillars of pain management — physical, pharmacological, interventional, psychological and adjunct therapies — we give complete pain management care."

#### Spine and Pain Specialists

#### Inayat Moosa, MPAS, PA-C



Inayat Moosa, MPAS, PA-C, joined Eisenhower Desert Orthopedic Center in 2015. He works with Dr. Reginald Fayssoux in all aspects of patient care, including seeing patients in the office and assisting in surgery.

A native of Pennsylvania, he has been a physician assistant since 2003 and spent the first 5.5 years of his career working in orthopedic spine surgery and the past 5.5 years in total joint surgery, before making his move to California.

Moosa received his bachelor's degree in biology from The Pennsylvania State University and his master's degree in physician assistant science from St. Francis University.

Moosa is a board-certified physician assistant with memberships in the American Academy of Physician Assistants (AAPA) and the California Academy of Physician Assistants (CAPA).

"It's an honor and privilege to have patients allow me to help them pursue the best quality of life."



**Supported by Pacira Pharmaceuticals, Inc.** 

PP-NP-US-0324 Oct 2016







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 creating the most effective and rapid return to pre-injury quality of life.

The Eisenhower Desert Orthopedic Center (EDOC) physical therapists align with our physicians to develop protocols for surgical and nonsurgical patient care and interact with our physicians on a weekly basis to provide the highest quality of care. Therapists also observe procedures and surgeries and shadow physicians in clinic to gain a better understanding of spinal diagnoses and to cultivate a team approach.

Whether the back injury is chronic or acute, surgical or procedural, physical therapy is necessary to diminish pain and strengthen core muscles. A comprehensive care plan is formulated for each patient based on individual needs and includes manual care, active care and palliative care techniques to reduce symptoms and return patients to their prior level of function. At the time of the patient's first therapy visit at EDOC, dictation from the patient's most recent office visit with his or her physician is reviewed, a thorough history is taken along with a

review of diagnostic tests, special tests are performed, and a comprehensive plan of care is formulated to allow the therapist to have a complete picture of the patient and provide a foundation for functional recovery. As early as the first visit, patients are given exercises to perform at home to help start their road to recovery.

Physical therapy often starts with low-level core strengthening, with progression to more intense activation and strengthening in functional movement patterns to carry over into everyday activities. Strengthening lumbar extensors, abdominal muscles and overall core muscles provides improved stability and strength to decrease unwanted forces and stresses on nerves and disks. Modalities are also utilized to decrease pain and inflammation, facilitate muscle recruitment when needed, and increase blood flow to assist in tissue healing.

Based on each patient's response, therapy progresses into more demanding exercises

to continue to strengthen and stabilize the spinal musculature. The rate of progression into these exercises depends on the extent and acuity of the injury, protocols developed by the physician, and whether or not surgery has been performed. Therapy can last anywhere from four weeks to three months, and compliance with a home exercise program is vital to success. Once physical therapy services are discharged, committed exercises are still required to maintain patients' level of success. These exercises will be given to patients throughout their course of care and selected specific to their needs.

Back pain doesn't have to take you out of your game or end your travel itinerary. Research supports physical therapy to assist in the healing of spine injuries and to assist in restoring quality of life. Back pain is a commonly seen diagnosis at the EDOC physical therapy clinic, and we work closely with our physicians to ensure the highest quality of care and patient satisfaction.



## 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 qual-

ity 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 close affiliation with local acupuncturists, herbalists and chiropractors. 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 specialists are board-certified physicians in physical medicine and rehabilitation (PM&R) and anesthesiology and fellowshiptrained in pain management and interventional spine. 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. We also specialize in medication management, neuromodulation, headache management, chronic pain and musculoskeletal ultrasound. An anesthesiologist has these characteristics and shares expertise in all kinds of injection techniques.

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 at Eisenhower Desert Orthopedic Center has a customized treatment plan to ensure optimal care and outcomes. Often, a course of physical therapy and establishment of a home exercise program are all patients need to improve their 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 transcutaneous electrical nerve stimulation (TENS) unit, and a muscle relaxant and/or anti-inflammatory medication. TENS is a valuable physical modality to improve local muscular and nerve-related pain and dysfunction.



#### "Thank you, Dr. Smith."

We would like to heartily recommend Dr. Phillip Jeffrey Smith for his fine care and treatment for years. He is an excellent representative for Eisenhower Desert Orthopedic Center and has never failed to address our needs and keep us ambulatory and relatively pain-free. He listens to patient concerns and takes the action he thinks is correct and will also refer to other departments of EMC as necessary. We have recommended his professionalism to many friends and have never received a complaint or criticism. He is a fine doctor.

Roy Cody and Richard Squibb

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. These include MRI, CT scan, SPECT (single-photon emission computed tomography)-CT, EMG/NCS (electromyography/nerve conduction study) and often blood work. We are proud of our manual diagnostic skills as well. The exam and advanced testing are specific to the part of the neck, back or other body part affected.

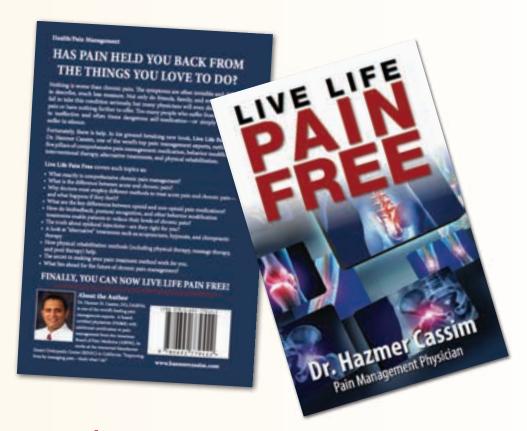
Medical ultrasound is traditionally thought of in the context of abdominal, vascular and obstetric medicine. Advances in technology and experience have led to ultrasound uses in musculoskeletal medicine. Our pain management physicians utilize ultrasound to visualize superficial structures, such as nerves, 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 are 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. Another commonly seen malady is when a patient has already undergone multidisciplinary treatment strategies, and even surgery, but unfortunately has 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 Desert Orthopedic Center.

Eisenhower Desert Orthopedic Center 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. Come see and experience the Eisenhower Desert Orthopedic Center difference.



# The Comprehensive Approach to Chronic Pain Management

Below is a brief excerpt from Live Life Pain Free, a book by Hazmer Cassim, DO.

There is no single way to deal with chronic pain that works for everyone. Each patient needs to be considered as an individual with a unique set of symptoms and accompanying treatment needs. But even an individual suffering from pain symptoms shouldn't rely on only one method of treatment. The most effective chronic pain management strategy will require you to use several different methods simultaneously. And while your doctor certainly has a great deal of knowledge in dealing with chronic pain, he or she will likely be consulting with specialists for each method of treatment being used. Please keep in mind that the most important specialist that any doctor will consult in any diagnosis, is the patient. Nobody knows the symptoms you're suffering from better than you, and the key to effective comprehensive treatment is to keep yourself, your physician, and all of the consulting specialists informed about any changes in your condition.

Even today, many physicians still have a tendency to simply write a prescription and send the patient on his or her way. We have all seen the commercials for various "miracle" drugs or procedures that promise to allevi-

ate, if not completely eliminate, the pain that comes from various conditions. You might have noticed that these commercials often show men and women engaging in various physical activities — playing football, doing yard work, riding horses — with no apparent sign of pain. To say that these are actors who don't actually have the conditions these drugs are meant to treat, should go without saying. But just as significantly, these commercials never show people engaging in physical therapy, undergoing surgery, reevaluating their diets, or going through any other sort of treatment, which no doubt leads many patients to believe that all they'll need to do to stop feeling pain is to get that miracle pill or procedure. Most of these commercials end with the suggestion to "ask your doctor if this drug is right for you." This is the opposite of how a consultation should go, with the patient not only determining his or her symptoms, but also making a diagnosis and deciding on the proper treatment without first consulting with a physician. Unfortunately, some doctors will write such prescriptions based on nothing more than patient demand, and these physicians are rightly condemned by the larger medical community.

#### "Thank you, Dr. Cassim."

I have had a lot of pain for years in the lower spine area. Dr. Cassim has worked with me starting with the least invasive. He is a very knowledgeable, true professional with a great bedside manner. I would highly recommend him to anyone looking for an honest answer for their pain relief.

James Kemp

While proper medication is certainly one method of chronic pain management, it will only be fully effective if used in conjunction with other methods. The five chronic pain management methods or pillars that we'll be exploring are (1) medication, (2) behavior modification, (3) interventional therapy, (4) alternative treatments, and (5) physical rehabilitation. Again, none of these methods should be used on their own, and none of them should be considered the "most important" method.

# Minimally Invasive Spine Surgery





by A. David Tahernia, MD (left), and Reginald Fayssoux, MD (right)

hankfully, 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 can have longer recovery periods when compared to newer techniques. Recent technological advances in spinal imaging and instrumentation have allowed spine surgeons to address an evolving array of diagnoses with less invasive techniques that achieve the same goals, though with shorter hospital stays and quicker return to activity. This type of surgery for the spine is called minimally invasive spinal surgery (MISS) or less invasive spinal surgery (LISS) and is a significant part of our practice here

at Desert Orthopedic Center.

In order to understand minimally invasive spinal surgery, it is helpful to understand what is involved in traditional spine surgery and how minimally invasive surgery is different. The traditional way we get to the spine is via a posterior (coming from the back) incision down the middle of the neck or back. These incisions are made shorter and longer depending on how many levels within the spine needs to be addressed surgically. In this incision, the back muscles are detached from the spine, split down the middle and then elevated off the bone. You can think of it as peeling or scraping the muscle off of the back of the spine and off to the side. Unfortunately, the muscles detached from the bone are unable to be easily repaired back to the bone, and thus

Almost as certain as death and taxes are neck and back pain. Nearly 8 in 10 individuals, at some point in life, will develop significant neck or back pain that warrants medical attention. While most can be treated conservatively, an unfortunate few will have severe symptoms that progress to require surgery.

this healing process is painful. Much of the recovery pain after posterior cervical (i.e. neck) and lumbar (i.e. back) surgery actually relates to the healing of these back muscles and not the spinal bones. The advantage of this approach, though, is it 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 approaches, in contrast, rely on minimizing the amount of muscle that is detached from the spine. These less invasive approaches use smaller incisions that pass through the muscle fibers instead of the traditional technique of detaching the muscles. These procedures can be done through the front of the neck or abdomen (i.e. anterior approach), through the side of the abdomen (i.e. lateral approach) as well as through the back (i.e. posterior approach). Although they avoid the stripping of muscle off the spine associated with traditional techniques, specialized training is required to safely pass the nerves, blood vessels and other organs located in the path between the skin incision and the spine and to operate through these smaller incisions. Specialized retractors are then used to maintain a safe tunnel through which the surgeon operates on the spine using specialized light sources and instruments. These procedures typically have less blood loss, decreased infection rates (because less tissue is damaged) and significant advantages in recovery time when compared with open procedures. However, these procedures are not able to address all spinal problems.

So why do we not perform minimally invasive spine surgery on all of our patients? Unfortunately, for a variety of reasons, not everyone is a candidate for MIS surgery. For some, the problem is too large to be handled effectively by minimally invasive techniques. In others, the patient's anatomy is not suitable for minimally invasive techniques. Thankfully when we must use traditional techniques, the outcomes are just as good, it is just that recovery is longer. Ultimately, whether or not MIS surgery is an option is a decision we make based on an individualized assessment of the relative advantages and disadvantages of the different techniques for each patient.

At Desert Orthopedic Center, we strive to be the absolute best at what we do, and our results and outcomes bear this out. Our experience with the multitude of minimally invasive options now available allows us to individualize our approach to our patients. We pride ourselves on staying at the forefront of technology, adding options to our armamentarium in order to have a wide array of safe options for our patients. We understand there is no substitute for a caring, technically proficient, personalized approach to patient care, and we promise to do our best to bring that to you.

# Managing Pain: A New Hope





by Hazmer Cassim, DO, (left), and Reginald Fayssoux, MD (right)

Offering a comprehensive, multidisciplinary, evidence-based, individualized treatment program for those suffering from pain, our recently renovated Eisenhower Desert Orthopedic Center Spine and Pain Center, on the third floor of the iconic Bob Hope Classic Medical Building on the picturesque Eisenhower Medical Center campus, is now the premier center in the Coachella Valley for patients in pain. With a focus on patient experience and using the latest state-of-the-art technology, our physicians guided the construction of the most advanced center of its kind in the Coachella Valley. With a clinical suite for patient evaluation directly linked to the Eisenhower Medical Center hospital and affiliated offices, individual patient pods, telemedicine capabilities with direct access to

all of the valley's laboratories and diagnostic imaging centers, and a fully operational surgery center with mobile X-ray units, this facility is a new hope for individuals suffering with spinal pain and will be the new residence of Eisenhower Desert Orthopedic Center pain management physicians Hazmer Cassim, DO, DABPM; P. Jeffrey Smith, DO; and Donald J. Greco, MD, and physician assistants Marianne Dezelan and Michael Guiles. Our center on the Eisenhower Medical Campus is here to help guide our patients to the most advanced treatments available.

Those living with spinal pain can have symptoms of neck, back, arm or leg pain from some combination of spinal arthritis, degeneration or stenosis. This pain can limit function and cause significant disability. Our center focuses on guided treatments with the goal of identifying the "primary pain generator" — the main anatomic reason the patient 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 is rapid. However, when there are many possible causes for pain, identifying the primary pain generator and returning individuals to a prepain state can be complicated. At our center, we use a combination of what we learn from

our patients, advanced imaging modalities, and collaboration with our orthopedic and spine team led by A. David Tahernia, MD, and Reginald Fayssoux, MD, with physician assistants Kirt Edly and Inayat Moosa, to accurately diagnose our patients. Often, it is simply a combination of reassurance, medications and guided therapy that returns patients back to health. When this is not enough, we can consider interventional care, using movable X-ray machines or fluoroscopes to clearly visualize anatomical regions and to introduce diagnostic and therapeutic medicines into localized areas to treat pain.

One common type of X-ray-guided injection is an epidural injection. Epidural injections are injections into the epidural space — the space around the nerve roots within the spine — with a combination of an anti-inflammatory medicine, typically a steroid, and a local anesthetic. These injections precisely deliver help to treat pain, and are also useful for identifying specific anatomical structures as the primary pain generator.

Another set of techniques for management of pain includes radiofrequency rhizotomy (burning of specific pain-generating sensory nerves) and cryoablation (freezing of specific pain-generating sensory nerves). These technologies offer the ability to either cauterize (burn) or cryoablate (freeze) damaged, painful nerves in specific regions of the body under



X-ray and neurological monitoring guidance. Radiofrequency ablation and cryoablation are techniques able to treat pain that previously had been deemed untreatable.

Unfortunately, there still remains a group of individuals who continue to suffer with pain despite these conservative interventions. Typically, these patients have not responded to traditional therapies, or have too many generators of pain or have a surgical problem but are not surgical candidates (e.g. because of a heart condition or advanced age). For these patients, spinal cord stimulation (SCS), peripheral nerve stimulation (PNS) and intrathecal drug delivery systems (IDDS) can sometimes be options. These new technologies are used as implanted "pacemakers" for pain and, as a class, are known as neuromodulation. These options deliver constant pain therapy at the spinal level, through focused electrical current or medications, and have been successful in these patients

Our center focuses on guided treatments with the goal of identifying the "primary pain generator" — the main anatomic reason the patient experiences pain.

who have no other options. Our physicians are national lecturers and educators on these treatment modalities, and we are pleased to be able to offer these options to our patients.

Finally, platelet-rich plasma (PRP) and stem cell (SC) therapies have shown recent

promise in their ability to help certain musculoskeletal conditions. The most important factor for success is first having the correct diagnosis. As trained musculoskeletal and spinal providers, we will not offer these treatments unless we have an accurate diagnosis, and only when there is evidence to suggest that these treatments are a reasonable option, unlike many other providers of these services who have little musculoskeletal training and poor understanding of the conditions for which these options have been shown to be effective.

As time carries us into the future, we will, as always, look to remain on the forefront in the management of patients with musculoskeletal and spinal pain so that we can continue to offer our patients the latest options to reduce pain, maintain function, and keep people moving now and into the future. For patients in pain, please come visit us, and let us help!

# www.desertortho.com





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DESERT ORTHOPEDIC CENTER is committed to helping people lead active lives, whether it's through treating a sport- 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 easy 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.

La Quinta

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