



## PSSO Newsletter



PIONEERS IN THE ADVANCEMENT OF PAIN MANAGEMENT TECHNOLOGY

DR. SAVINO, MD . DR JOHNSTON, DO



Dear community partners,  
We wanted to send out another newsletter keeping you updated on our practice and some important advances in the field of interventional pain management.

Unfortunately, opioids are over-utilized for chronic pain. Current medical evidence suggests that opioids, particularly when prescribed in high doses, are not only unlikely to reduce chronic pain or improve quality of life but may actually cause increased pain and decreased ability to function. Our goal is to offer our patients alternatives to opioid

therapy. We recognize that opioids have a role in chronic pain management, but we only use them if it is necessary and safe.

Sincerely,  
Joe Savino and George Johnston  
Pain Specialist of Southern Oregon

### Failed Back Surgeries

Many people with failed back surgeries have had success with the SCS. It is most commonly used to treat low back and lower extremity pain. Thousands of patients with severe chronic painful conditions have received relief with spinal stimulation. SCS may be prescribed for chronic intractable pain of the trunk (lower back) and/or limbs, including unilateral or bilateral pain associated with the following:

- Failed back surgery syndrome
- Intractable low back pain and
- Leg pain.

#### How Does It Work

In general terms, neurostimulation blocks the pain signal from reaching the brain. Through the application of an electrical current, a stimulation is created that blocks the brain's ability

to sense pain from the neck, lower back, legs, hips or arms. This is accomplished by one or two 'leads' that are placed into the back through a needle. A small incision is made and a tiny, programmable generator is placed in the upper buttock and flank area, under the skin, which generates electrical currents to the leads, which offset the sense of pain. After the "trail procedure" like a "test drive", the patient and physician decide whether or not spinal cord stimulation is a therapy option. If they decide to go forward, then the patient will undergo another surgical procedure to surgically place the SCS device. The leads may be inserted in a procedure similar to an epidural. In some cases, a physician may recommend a surgical lead, also known as a paddle lead. In this case, the paddle lead is placed at the target site during the surgical procedure. Patients may remain awake during this procedure, under local anesthesia and light sedation. In other cases, general anesthesia may be administered.

Pain Specialists of Southern Oregon have had great success in eliminating the chronic pain that many patients have lived with for years. Our doctors

use several different spinal cord stimulator manufacturers, depending on what the doctor believes is the best fit for the patient diagnosis and needs.

#### References:

Pain Physician. 2009 Mar-Apr;12(2):379-97.  
Frey ME1, Manchikanti L, Benyamin RM, Schultz DM, Smith HS, Cohen SP. Asian Spine J. 2016 Dec; 10(6): 1195–1204. Published online 2016 Dec 8. doi: 10.4184/asj.2016.10.6.1195 : Przemyslaw M. Waszak, 1 Marta Modrić, 2 Agnieszka Paturej, 3 Stanislav M. Malyshev, 4 Agnieszka rzygocka, 5 Hanna Garnier, 6 and Tomasz Szmuda 7 Neurosurgery. 2018 May 21. doi: 10.1093/neuros/nyy194. Nissen M1, Ikäheimo TM1, Huttunen J1, Leinonen V1, von Und Zu Fraunberg M. Neurosurgery of KUH NeuroCenter, Kuopio, Kuopio University Hospital,

## Pain Specialists of Southern Oregon:

- ***Precision Guided Diagnostic and Therapeutic Injections. Epidural/Selective Spinal Nerve Blocks***
- ***Facet Joint Injections. Medial Branch Blocks. Joint Injections (Hip, Shoulder, Knee, Neck)***
- ***Discography. Sacroiliac Joint Injections. Radiofrequency Ablations. Neuromodulation***
- ***Spinal Cord Stimulation. Spinal Cord Simulator Implant. Peripheral Nerve Stimulator***
- ***Intrathecal Pain Pump. Incorporating a Network of Complementary and Regenerative Therapies***

## Evidence Based Medicine

Few procedures in the medical or surgical literature have had as strong support from evidence-based medicine as **Radio-Frequency Neurotomy**, specifically for treating pain in the cervical spine. Studies have shown that approximately 60% of cervical spine pain in the absence of radicular symptoms arises from the cervical facet (zygapophyseal) joints. Each joint is innervated by two medial branches that are easily blocked. Greater than 80% immediate relief with two confirmatory medial branch blocks is predictive of a positive response to RF Neurotomy.

(Ref: RF Knee. 2011 Mar;152(3):481-7. doi: 10.1016/j.pain.2010.09.029. Epub 2010 Nov 4. Choi WJ<sup>1</sup>, Hwang SJ, Song JG, Leem , Kang YU, Park PH, Shin JW)

Relief typically lasts between 6 to 18 months, at which time the procedure can be repeated.

Uses of RF Neurotomy have expanded to treating axial thoracic and lumbar spine pain as well as pain from the sacroiliac joints.



Recently, we have begun to use RF Neurotomy to treat pain arising from the knee and hip joints from osteoarthritis.

The main articular branches innervating the joints are blocked with local anesthetic and RF Neurotomy is then used to ablate the nerves. Studies are being conducted to determine degree and length of relief with one RCT currently published supporting knee RF ablation.

Ref. Cervical Radiofrequency: McDonald, Greg J. F.A.F.R.M.; Lord, Susan M. Ph.D.; Bogduk,

Nikolai Ph.D., D.Sc. Neurosurgery: [July 1999 - Volume 45 - Issue 1 - p 61](#) .

This modality can be used for any patient suffering from knee or hip pain that may not be treated easily with surgery or steroid injections.

## Spinal Cord Stimulation Effective for Neuropathy Pain Over the Long Term



Most people who are treated with spinal cord stimulation due to painful diabetic neuropathy, or nerve damage, achieve long-term relief, according to a new study from the Netherlands. As many as 70% of people with diabetes have some form of neuropathy, as stated by the National Institutes of Health [1].

Chronically high blood sugar levels can damage nerves throughout the body, including in the peripheral nervous system, which is responsible for transmitting information [2] to and from the brain and spinal cord to the rest of the body. Symptoms of diabetic peripheral neuropathy include pain, tingling, and numbness in the hands, feet, arms, and legs. Currently, only an estimated 40% to 60% of affected people achieve partial relief [3].

Spinal cord stimulation (SCS) involves using a mild electric current to block pain impulses in the spine via the use of a small current generator connected to the space at the top of the spine with wires. Previous research has indicated that this method of treatment successfully



relieves neuropathy pain, but participants in the studies were only followed for six months.

To determine whether SCS can control neuropathy pain over the longer term, researchers from Maastricht University Medical Centre conducted a 24-month follow-up of 17 participants from an earlier trial who had received benefits from the device.

At the end of the two-year period, 47% of participants reported a 50% pain reduction during the day and 35% reported a 50% pain reduction during the night. Additionally, 53% of participants reported a significant overall improvement in their pain levels and sleep quality, leading the researchers to conclude that SCS can successfully relieve neuropathy pain on a longer-term basis.

“Spinal cord stimulation serves as a successful last resort treatment... for the duration of at least two years in 65% of diabetic patients with painful neuropathy,” said researcher Dr. Maarten van Beek [4] in an e-mail to Reuters Health.

For more information, read the article “Spinal Cord Stimulation Benefit Ongoing in Diabetic Neuropathy” [5] or see the study in the *Journal Diabetes Care*. And for more information about dealing with neuropathy, read the article “Controlling Neuropathic Pain: Tips From an Occupational Therapist.”

1. National Institutes of Health: <http://www.niddk.nih.gov/health-information/health-topics/Diabetes/diabetic-neuropathies-nerve-damage-diabetes/Pages/diabetic-neuropathies-nerve-damage.aspx>
2. responsible for transmitting information: <http://www.nebraskamed.com/neuro/neuromuscular-disorders/peripheral-neuropathy>
3. <http://www.fusfoundation.org/diseases-and-conditions/brain-orders/neuropathic-pain> researcher Dr. Maarten van Beek:
4. “Spinal Cord Stimulation Benefit Ongoing in Diabetic Neuropathy”: <http://www.medscape.com/viewarticle/847506> study: /2015/06/25/dc15-0740.full.pdf+html

5. “Controlling Neuropathic Pain: Tips /managing-diabetes/complications-prevention/controlling-neuropathic-pain/

## Cervical Facet Radiofrequency Neurotomy

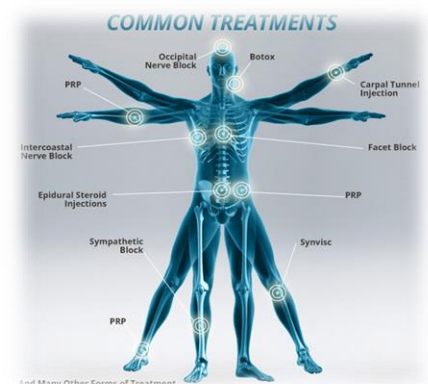


Also known as a radiofrequency rhizotomy, this minimally invasive testing procedure has the potential to eliminate or reduce pain in facet joints suffering from damage due to injury or degeneration. Cervical facet joints are located on both the left and right side of the spine. These facets connect to specific vertebrae, which guide spinal movement. Pain in the cervical facet joints is typically the result of joint dysfunctions, and the symptoms of irritation in these faces may range from simplistic muscle tensions and spasms to more severe pain symptoms.

A radiofrequency rhizotomy of the cervical facet can relieve these symptoms in the majority of sufferers of this type of pain.

## Advances in regenerative and alternative medicine

- We are continually exploring new emerging technologies and therapies for treating our chronic pain patients. While regenerative medicine in general has been around many years, the advances and evidence are continually improving and having a huge benefit in therapies with various sports and other pain issues.
- Regarding Platelet Rich Plasma, the most notable athletes benefiting for PRP are **Tiger Woods** (PGA Golf)
- **Rafael Nadal** (World Champion in Tennis)
- **Hines Ward & Troy Polamalu** (NFL Football)
- **Daron Rahlves** (Olympic Skier)
- **Daniel Cormier** (MMA)
- **Steph Curry** (NBA Basketball)
- Platelet Rich Plasma
- Prolotherapy
- Stem Cell Therapy
- Perineural Injection Therapy
- Ketamine Infusions (Depression/CRSP)
- Botox Injections



And Many Other Forms of Treatment

## OUR LOCATION



### 825 Bennett Ave. Medford, OR

We are Southern Oregon’s first interventional pain management practice with specialists in both anesthesiology and physiatry. We are well-respected for our conservative and innovative, treatment methods.

## MEET OUR CURRENT TEAM

**Joseph Savino, MD**

**George Johnston, D.O**

**Paul Leppert, ANP**

**Dashia Hewitt, MSN, AGNP-C**

**Denise Partin, FNP**

**Jeremy Cathey, ANP-C**

convenience of having outpatient surgeries interventional pain management, endoscopic and/or podiatry procedures performed safely outside the hospital setting. ASCs have demonstrated an exceptional ability to improve quality and customer service while simultaneously reducing costs. At a time when most developments in health care services and technology typically come with a higher price tag, ASCs stand out as an exception to the rule. We are focused on ensuring that patients have the best /surgical procedures experience possible while providing cost effective care.

**Dr. Joseph Savino and Dr. George Johnston** are happy to discuss any variety of questions regarding your cases, availability, or how we can help your patients

## Crater Lake Surgery Center can help you:

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Crater Lake Surgery Center is located at 833 Bennett Ave in Medford, OR

Our Administrator/Clinical Director is Luanne Evans, RN

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**PAIN SPECIALISTS OF SOUTHERN OREGON**

Pain doesn't have to control your everyday life.

Dr. Johnston  
Graduate of University of New England and Mayo Clinic Fellow.

Dr. Savino  
Board-Certified Physician, Graduate of Loma Linda University.

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*We would love to hear from you with your comments:*

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