O-arm® surgical 3D imaging technology allows precision and minimal disruption during complex spine surgeries

Dr. Edward Perry, a fellowship-trained neurosurgeon at SpineNevada Minimally Invasive Spine Institute recently became one of the first surgeons to use the new Medtronic O-arm® Multidimensional Imaging System at Renown Regional Medical Center in Reno.

The O-arm® technology enhances outcomes for spine surgery patients by allowing surgeons to visualize in real-time the surgical site. This permits more precise placement of instrumentation and hardware.

By combining mobility, low-dose x-ray images and speedy image processing, the O-arm® provides live 3-D navigation during surgery. Within seconds the surgeon receives highly detailed surgical site images. The O-arm® imaging system makes possible more precise placement of spinal hardware. Other benefits include smaller incision, shorter surgery duration, less post-surgical pain and faster recovery than with traditional spine surgery techniques.

The neurosurgeons at SpineNevada Minimally Invasive Spine Institute have been using minimally invasive techniques since 2002. The SNMISI neurosurgeons were the first in Reno to perform MIS TLIF and MAS PLIF procedures as well as the first to perform both cervical and lumbar artificial disc replacements. Dr. James Lynch was the first in Northern Nevada to use the coflex® Dynamic Stabilization device for the treatment of Spinal Stenosis.

To request more information, please call 775-348-8800, or visit SpineNevada.com.

Diagnostics for Back and Neck Conditions at SpineNevada’s center of excellence

The physical medicine & rehabilitation physicians (physiatrists) at SpineNevada are experienced in electrodiagnostic studies. An EMG lab may be ordered for patients who experience numbness, tingling, pain, weakness, or muscle cramping. Nerve conduction studies and EMGs are types of tests may be used to diagnose spine conditions.

Nerve conduction studies are used to show the physician how well the body’s electrical signals are traveling to a nerve. During this test, small electrical shocks are applied to the nerve in order to record how the nerve works. The shocks may cause a quick, mild and tingling feeling. The doctor may test several nerves.

During an EMG, the physiatrist will only test the muscles necessary for diagnosis. Physicians are able to see and hear the electrical signals that travel from the needle to the EMG machine.
The overall goal of spine surgery is to get to the root of the problem, while at the same time causing the least amount of disruption to the patient’s lifestyle. When surgery is the right course of action, it is essential for the patient to play an active role in his / her post surgical recovery. The ideal time frame for entering physical therapy is 2-3 weeks after surgery.

One of the key features that sets SpineNevada apart from other offices is its spine-specialized physical therapy department. Patients will be connected with a physical therapist who has advanced training in techniques for spine and aiding in post-operative recovery. Thais Mollet, PT, DPT, and Torrey C. Schweickert, PT, MSPT of SpineNevada have skills and techniques that are specifically oriented at post-op rehabilitation— including the relief of pain and return to activity.

Achieve optimal post-op recovery

Participation in post surgical physical therapy allows the patient to obtain the full benefit from the spine procedure. In short, physical therapy and appropriate exercise can help patients recover from spine surgery as quickly and completely as possible.

Physical therapy and exercise help the body achieve proper alignment and balance. A procedure that involves your spine can be similar to when you replace the tires on your car — without proper alignment— the tires will not last as long or wear evenly. A physical therapist’s role following a spine procedure is to help with the alignment and balance of the body to ensure patients achieve the full positive effects of the spine surgery.

**Benefits of SpineNevada Post-Operative Physical Therapy:**

- Achieve faster full benefit from the spine procedure.
- Patients return to activity safely without re-injury.
- Achieve proper body alignment and balance.
- SpineNevada PT offers customized patient exercise programs that provide long-term benefit.
- Aids in relief of pain and fatigue following surgery.