

SPINAL SURGERY

Considering the spine's complexity, it's no surprise that more than 1 million Americans undergo back surgery each year.

The spine is made up of 26 donut-shaped bones called vertebrae. Stacked one on top of the other, they're separated by small, gel-like disks, which act as protective cushions. The vertebrae form a channel through which the spinal cord runs. Nerves branch out from the spinal cord, extending between each vertebra. And it's right there that many serious back problems start.

"A majority of spinal operations are performed to relieve pressure on one or more nerves that are compressed by discs or ligaments," says

Dr. Samer Ghostine, a spine neurosurgeon.

He and other specialists in UC Irvine Healthcare's Comprehensive Spine Program provide a wide range of surgical and nonsurgical treatments to help people with back problems. The team is composed of orthopaedic surgeons, neurosurgeons, neurologists, physiatrists, pain medicine specialists and others who collaborate to design the most effective treatment for each patient. "This multidisciplinary approach streamlines the diagnosis and treatment of patients suffering from all types of spinal disorders," says

Dr. Nitin Bhatia, an orthopaedic spine surgeon.

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Back problems are many and varied—and so are the surgical ways to remedy them. The spine team employs the newest methods to address degenerative disc disease, unstable vertebrae, fractures, narrowing of the spinal canal, abnormal curvatures of the spine and related conditions. "Many patients

require complex surgery, but the goal is always to do the least invasive operation for the best possible outcome," explains Ghostine. Today, for example, when degenerated discs cause spinal deformities, the problem can be addressed with a minimally invasive procedure called lateral interbody fusion (LIF). "This operation involves joining together or 'fusing' two or more vertebrae to stabilize and strengthen the spine," explains Ghostine. "In the past, spinal fusions required a major incision combined with extensive cutting and manipulating of muscles to get to the vertebrae. But today, the entire LIF procedure is performed through two small incisions on the side of the body." This approach spares back muscles, reduces postoperative pain and shortens recovery time.

Pinched neck nerves. Another exciting, new development in back surgery eliminates the need for spinal fusion in patients suffering from pinched nerves in the neck. Called a posterior cervical microforaminotomy (PCMF), the procedure is performed through a small incision in the back of the neck. Using a special, high-powered microscope and miniature tools, the surgeon enlarges the opening in the vertebrae through which the compressed spinal nerve passes. By clearing the opening of excess bone, disc material and scar tissue, pressure on the nerve is alleviated, banishing neck pain and related symptoms. "This minimally invasive approach maintains the structural integrity of the spine and preserves neck motion," says Bhatia, who is one of only a few surgeons in Orange County skilled in the new method of correcting pinched neck nerves. "Until recently, this operation was performed through an incision in the front of the neck—an approach that necessitated the complete removal of one or more discs, followed by spinal fusion.

PCMF is far less invasive due to the back-of-the-neck incision combined with microsurgical techniques."

But surgery isn't always the only answer. Many patients benefit from the help they receive at the UC Irvine Center for Pain Management. Treatments range from anesthetic and anti-inflammatory injections to implanted devices. The latter includes



spinal cord stimulation, in which electrodes implanted close to the spinal cord suppress pain. Another strategy involves medication placed directly into the spinal fluid by an implanted pain pump.

With so many surgical and medical strategies available to remedy spinal problems, there's no need for people to live in continual discomfort.

For referral to a UC Irvine Healthcare spine specialist, call 877.UCI.DOCS.

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