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decompressing the nerves in the arms and hands of hundreds of diabetics, he pioneered nerve decompression surgery for the legs and feet of diabetics which now has an established clinical track record of providing pain relief and restoring sensation.

To perform nerve decompression surgery, Dr. Tollestrup makes an incision over the affected nerve to release the tight area entrapping or compressing the nerve. This gives the nerve more wiggle room, allows blood to flow better in the nerve and permits it to glide with movements of nearby joints.

Following surgery, most people find that their original neuropathy pain is gone in a matter of days or weeks. The return of normal sensation in the extremity may be equally quick but can take months depending on how long the symptoms were present prior to surgery and how much damage the nerve has sustained.

Relief from Other Forms of Pain

Over the past decade, the use of nerve decompression – and another type of surgery called segmental denervation – has rapidly expanded. It is now used to treat non-diabetic neuropathies, as well as nerve irritation that may inadvertently occur from surgeries such as joint replacement or hernia repair and chronic pain resulting from physical trauma, repetitive stress injuries and migraine headaches.

"Most pain following surgery or trauma, such as a broken bone, will be resolved in a reasonable time period once the underling injury is healed," says Dr. Tollestrup. "Chronic pain may indicate that there is residual damage to a nerve even after other indications of injury have long since healed."

The misfortune of such situations is that patients may go from doctor to doctor, undergo additional surgeries and end up dependent on pain medication because the underlying nerve damage is never identified as the true source of their pain. Even in situations where the correct diagnosis of nerve damage is made, treating physicians may be unaware that there are surgical options available to potentially eliminate the pain.

That's just what happened to David Charles after having a total knee replacement. Months after surgery, he still suffered debilitating pain which required him to walk with a cane. He returned to his orthopedic doctor on a number of occasions for follow-up exams and x-rays – all of which indicated that his arthritis was gone and his artificial joint was in good working condition. David sought the opinion of a second orthopedic surgeon who referred him to Dr. Tollestrup.

"About five percent of people who have knee surgery will continue to experience severe pain long after they've recovered," says Dr. Tollestrup. "In some cases, the nerve pain may have been present before knee surgery, but it is also possible that a nerve can become irritated or damaged as a result of surgery."

After David underwent a comprehensive nerve evaluation, Dr. Tollestrup pinpointed the nerves causing David's pain and used a local anesthetic to temporarily block its ability to send pain messages to the brain. Then he asked David to walk around, bend, squat and climb a flight of stairs. David did so without any problem which was an indication that nerve damage – rather than the artificial joint or arthritis – was causing his pain.

Dr. Tollestrup relieved David's pain by performing a procedure called a partial anterior knee denervation which required cutting the sensory nerves to the knee joint and implanting the proximal ends in nearby muscles in order to interrupt the pain signals. It's a procedure Dr. Tollestrup likens to capping off a live electrical wire.

"While I have the full use of my knee, there's a bit of a tradeoff," says David. "I experience some numbness around my knee, but it's 1,000 times better than trying to cope with constant pain." WC

Q What are the risk factors of peripheral nerve damage?

A: Diabetes is a leading cause of neuropathy. Symptoms such as pain, tingling, numbness or the loss of sensation in an extremity are warning signs that nerves aren't receiving enough oxygen to function properly. Over time, the pressure on the nerves can lead to some of the individual nerve fibers actually dying. As a diabetic starts to lose normal sensation, they may not feel injuries, and as a result, blisters or cuts and even small wounds can develop into ulcerations leading to deep bone infection, which often requires an amputation to cure.

Peripheral nerve damage may also be caused by trauma, repetitive physical stress, alcohol abuse, vitamin deficiencies, infections such as shingles, hepatitis C and HIV/AIDS, autoimmune diseases, kidney, liver or thyroid disorders or exposure to toxins.

Q What are the symptoms of peripheral neuropathy?

A: Specific symptoms vary depending on which types of nerves are affected, but may include:

- Gradual onset of numbness and tingling in your feet or hands, which may spread upward into your legs and arms
- Burning, sharp, jabbing or electric-like pain
- Extreme sensitivity to touch
- Lack of coordination
- Muscle weakness or paralysis if motor nerves are affected
- Bowel or bladder problems if autonomic nerves are affected