

real
a pain in the
NECK

Causes and Treatments for Neck Pain

BY TAMMY HOLOMAN



YOU MAY NOT REALIZE IT, BUT YOUR NECK HAS MORE FUNCTIONS THAN MANY OTHER PARTS OF YOUR BODY. ASIDE FROM SUPPORTING THE HEAD, IT CONTAINS FLEXIBLE MUSCLES THAT ALLOW US TO MOVE IN DIFFERENT DIRECTIONS, AND NERVES THAT SEND MESSAGES BETWEEN THE BRAIN AND THE REST OF THE BODY. IT ALSO CONTAINS BONY VERTEBRAE THAT PROTECT THE SPINAL CORD. WHEN THOSE MUSCLES, NERVES AND BONES ARE INJURED OR COMPROMISED, CHRONIC PAIN OFTEN RESULTS.

Seven vertebrae make up the upper, or cervical, part of the spine (C-1 to C-7). The vertebrae are connected by pairs of facet joints (on each side), and these joints contain nerves that branch out from the spine to the torso and limbs. Between the vertebrae are disks that act somewhat like shock absorbers, allowing the spine to move while holding the vertebrae together. Soft tissue elements, including muscles, ligaments and tendons, also work together to ensure the neck's range of motion.

PAINFUL MUSCLES FROM INJURY OR STRAIN

"The reason most people end up in my office with muscular neck pain is often a whiplash-type car accident or a muscle strain," says Jessica Shellock, MD, a spine surgeon at the Texas Back Institute in Plano, Texas. "But pain in the upper back and neck from postural causes is also common, especially now, because so many people have desk jobs where they sit hunched over a computer most of the day. You

may not have the best ergonomics figured out for your work area, and that can certainly play into pain.”

Neck pain may be dull, stabbing or burning, and often radiates through the shoulder. Many patients have headaches or stiff necks with a limited range of motion. Chronic muscle pain is typically managed first with over-the-counter (OTC) pain medications such as ibuprofen or naproxen, says Dr. Shellock. Sprains and strains, the source of most neck pain, eventually heal on their own.

“I recommend starting out with anti-inflammatories, and if the pain persists, there’s certainly a role for physical therapy, including exercises for stretching and strengthening the neck, as well as chiropractic care. Those are good options if the pain is not getting better from over-the-counter medications alone,” she says.

WHEN DISK PROBLEMS CAUSE NERVE PAIN

When Tim Jones, 55, of Frisco, Texas, was rear-ended in a car accident 15 years ago, he began to experience pain in his neck. He initially saw his primary care physician, who recommended physical therapy and over-the-counter pain relievers.

“I went through several months of physical therapy and it wasn’t doing much good, so my option back then was a bone graft, which they would put in the neck,” Jones remembers. “When I talked to my doctors about it, they said I would pretty much be trading one pain for another if I had the operation. I just didn’t see that it was worth it. The pain wasn’t severe — it was more of an annoyance — so I didn’t have surgery.”

A bone graft replaces the affected disk between the vertebrae with other bone to stabilize the spine. The bone can be taken from another part of the patient’s body or from a donor, or it can be artificial.

After managing his pain with OTCs for several years, Jones wound up in the emergency room in January 2009, thinking he might be having a heart attack.

“I went to the hospital with pain in my left shoulder and my upper chest, and numbness down my left arm,” Jones says. “I stayed there for a few days and

Treatments for Neck Pain

Over-the-counter pain medicine

Physical therapy

Cervical diskectomy and fusion

Injections (intramuscular or epidural)

Disk replacement surgery

Nerve decompression
(laminectomy or foraminotomy)

Facet rhizotomy (radiofrequency lesioning)

Helpful Resources for Managing Chronic Neck Pain

MAYO CLINIC

www.mayoclinic.com/health/neck-pain/DSO

SPINE-HEALTH

www.spine-health.com

MEDICINE NET

www.medicinenet.com/neck_pain/article.htm

THIRD AGE

www.thirdage.com/hc/c/chronic-neck-pain

AMERICAN ASSOCIATION OF NEUROLOGICAL SURGEONS

www.aans.org

AMERICAN ACADEMY OF ORTHOPAEDIC SURGEONS

<http://orthoinfo.aaos.org>

NORTH AMERICAN SPINE SOCIETY

www.spine.org



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found out there was nothing wrong with my heart. At that point, they put me in touch with an orthopedic doctor, who did an MRI.”

The specialist told Jones that although he had some nerve issues in his neck, he didn't think Jones was a candidate for surgery at that time. He was then referred to a pain management specialist.

“I saw him from the time when it was really bad,” Jones says. “Eventually, I was not able to sleep in my bed; I slept sitting upright on the couch to keep it from hurting. I also had to keep my head turned to the right to relieve the pressure on the nerves. The pain doctor gave me steroid shots in the neck and a hydrocodone prescription. The first shot lasted roughly seven months, and the second one lasted about six months. The third one lasted only five months, and I thought, ‘OK, enough of this.’”

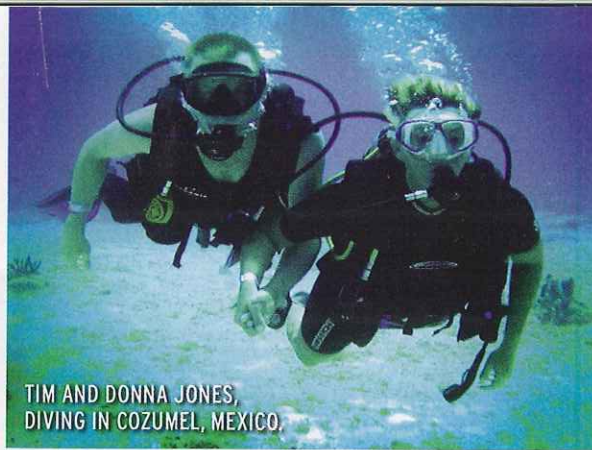
After being referred to the Texas Back Institute in July of last year, Jones met Dr. Shellock, who did another MRI and found a disk herniation that was causing nerve pain in Jones' arm. When a spinal disc herniates, it bulges out beyond the vertebrae, sometimes resulting in nerve root compression that causes pain or numbness.

“At that time, I hadn't been sleeping in my bed for two months,” Jones says. “When the results came back, Dr. Shellock told me she wanted to try one more injection, just to see if her diagnosis was correct. It had very little to no effect, so she called me back in and said I needed surgery. When we talked about all the risks, Dr. Shellock made it easy for me to understand what was happening, so I could make a choice.”

Jones decided to go ahead with the surgery.

WHAT IS ACDF? CERVICAL DISKECTOMY AND FUSION

“[Jones] had an anterior cervical discectomy and fusion of C-6 and C-7; we call it an ACDF,” Dr. Shellock says. “It's basically a surgery where we took out the entire disk that had herniated, and in its place we put a device that holds the gap open between the two bones to allow them to fuse and heal. I would say it's proba-



TIM AND DONNA JONES,
DIVING IN COZUMEL, MEXICO.

bly the most common surgical operation for this condition. It's a plastic spacer device that goes into the disk space, and it's held in place with screws.” Jones reports that the surgery changed his life for the better.

“We did it four days later. The pain in my arm and shoulder, and the tingling, were immediately gone, which was great. I was down for about three weeks and back to work after that, and it's been great ever since.”

Jones followed up with physical therapy. “A few months later, I was diving with my new wife, Donna, and had no problems at all. It was a total turnaround for me. Living with constant pain, you don't realize how much it affects your life. The surgery was just outstanding for me. I have no regrets.”

Although an accident caused Jones' initial neck pain, aging is the usual culprit in degenerative disk disease, Dr. Shellock explains.

“The most common cause, ultimately, is the degenerative process over a period of years. If the disk herniates at some point, it may not be caused by any major event; it was just ‘in the cards’ for the patient, so to speak.”

If the neck pain goes untreated, the problems can become more widespread, says Dr. Shellock. “Often, when a patient has a collapsed or degenerative disk, it's reflected in the joints, because they have to take on a little more stress. Some arthritic changes can develop, which can become painful.”

OTHER TREATMENT OPTIONS

When cervical nerve pain doesn't improve after OTC medications or physical therapy, a spine specialist may consider steroid injections to the affected area.

“The next step before surgery would usually be to try an epidural injection targeting the nerve that’s being irritated from a disk bulge. After all of that, if you’re still having symptoms, then that would be where surgery comes in,” Dr. Shellock says.

“Injections are part of what I’d consider the conservative workup to try to avoid surgery. That includes basically the epidural injection or a selective nerve block. Both involve a steroid and some numbing medicine being injected, and both are done with a fluoroscope so we can make sure the needle is where we want it to be.”

The efficacy of steroid injections varies from patient to patient. Some experience relief for a few months, some for much longer. Disk replacement is another option, says Dr. Shellock.

“Here, the disk is removed and replaced with an artificial disk,” she says. “The difference between that and what we’ve done for Mr. Jones is that the disk replacement puts a flexible, artificial disk in the space that swivels to allow for some continued motion, versus a fusion, where vertebrae are joined so there’s no motion. Another option would be a decompression from the back of the neck, which is called a foraminotomy. It targets one of the nerves and we try to take a little bit of bone from behind to give that nerve a little more space.”

FACET JOINT PAIN

Facet joints connect the back side of the vertebrae and guide spinal movement. These joints can also experience arthritic changes with aging or other causes of pain.

“The facet joints, at each level, link the vertebra to the ones above and below it,” Dr. Shellock says. “There’s one on each side of each vertebra, and even though it’s a small joint, there can be pain there, as with any joint. To help identify that and try to provide a treatment option, often we will send people for an injection first. The injections help, but the effect isn’t very lasting in this situation.”

Dr. Shellock explains that a facet rhizotomy, or radiofrequency lesioning, is an outpatient procedure that helps some patients with facet joint arthritis. It involves numbing the patient, inserting a needle into the affected nerve, then applying heat via an electrode in the needle. The heat kills the nerve for several months, canceling its pain signal to the brain until the nerve eventually regenerates and the procedure may have to be repeated.

“Generally speaking, patients do great,” says Dr. Shellock. “Most people generally don’t need surgery, so you have to try all the conservative methods first, then decide who’s going to benefit from a specific procedure. There’s not a substantial amount of downtime for these types of procedures, but sports and activities that would involve any potential extremes of motion afterward should be avoided. Patients are able to do most day-to-day activities quite quickly.”

Whether chronic neck pain is caused by damaged muscles, nerves or joints, there are a variety of treatment options. After suffering for 15 years, Jones’ story is inspirational.

“My first day back at work, I remember my boss said, ‘Hey, wow. You’re like the old Tim. You’re back,’” Jones recalls. “I guess I just didn’t realize how much I had retreated inward. I was not my normal, outgoing self because I was dealing with that pain all day. To wake up and have that pain be gone was miraculous to me.” {PP}

