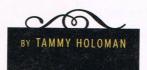
MANAGING AND CHRONIC LOW BACK PAIN

Every machine that's doing its job is subject to wear and tear, and our bodies are no exception, particularly as we age. As we travel through life, the bones and joints that bear our weight are continually stressed and jarred. And when those joints begin to degenerate over the years, we may lose strength, mobility or flexibility, and begin to experience inflammation, pain and discomfort. THESE ARE ALL TYPICAL SIGNS OF ARTHRITIS.

According to the Arthritis Foundation, osteoarthritis is the most common form of arthritis, affecting 27 million Americans. Although there are other types of arthritis, including rheumatoid arthritis (an autoimmune disease), osteoarthritis of the lumbar spine is a common cause of chronic low back pain.

"Osteoarthritis manifests itself in many ways," says Jared S. Greenberg, MD, a spine-condition

specialist with Meriter Orthopedic Group in Middleton, Wisconsin. "The spine is a giant segmented canal. If you envision the spine as a triangle, in the very front, there are the discs. In back, the two other points of that triangle are the facet joints. Running through the middle of that triangle is your spinal canal. As we age, those discs, just like other cartilaginous tissues in our body, change in their ability to maintain water and protein content, and they begin to lose their sponginess and shock absorbency,



their ability to bear weight and stress. As a result, those two facet joints at the very back of the canal experience altered stress as they start to bear more and more weight at that particular level, becoming arthritic."

Some patients feel little or no pain, but many with osteoarthritis of the lumbar spine experience pain and stiffness that is worse in the morning and eases off as the day progresses. The pain may radiate to the pelvis, buttocks, legs or groin.

"You can have back pain due to the arthritis of the facet joints, sometimes referred to as facet arthritis, or you can also have back pain due to degeneration of the disc itself, which some may argue is also part of the arthritic process," Dr. Greenberg says. "Or you can develop a condition called spinal stenosis, when arthritis not only causes pain in those facet joints, but they start to push in on the canal in the center of the triangle where the individual nerve roots are."

"These facet joints have ligament support, bone, cartilage and fluid just as other joints have, just on a smaller scale," Dr. Greenberg says. "So the same type of arthritic cascade that will happen in large joints like the hip or knee with age, the facet will undergo a similar type of arthritic degeneration. The problem is that we don't have a replacement for it like you would a hip joint or a knee joint."

David Balsiger, 65, a patient of Dr. Greenberg's, began experiencing chronic leg and low back pain about five years ago. He managed with over-the-counter medications as the pain came and went.

"The morning of my 60th birthday, I flew to Queensland, Australia, for a ten-day trip," he says. "[During the trip,] there were several periods when I'd wake up and have to take ibuprofen, and I had a hard time moving around for about 45 minutes."

Last year, the pain returned, but it had intensified.

"In the fall, I went to see Dr. Greenberg, and after an MRI and some other tests, he diagnosed spinal stenosis," Balsiger says.

At that time, Balsiger, who lives and works on an orchard, was able to make it through his daily duties by taking Vicodin each morning. Last November, he received an epidural injection that he says immediately alleviated his pain, but only for a few weeks.

Epidural injections, which are given under local anesthesia, are an option when other methods have failed to provide relief from lumbar pain that radiates down the leg. These injections combine a steroid and an anesthetic that coats the joints and nerves and discs in the area, and they are often administered using fluoroscopic X-ray imaging to determine the precise injection site. Results vary from patient to patient, but relief may last from one week to several months.

Facet joint injections are often beneficial when a patient's pain stems from the joint itself, Dr. Greenberg said.

"Epidural injections are for disc and nerve-root pain; they reduce the inflammation around those structures. But epidural injections typically do not treat facet joint pain," he said. "All injection therapies are designed to try to put the medication as close to the pain-generating spot as possible."

An avid cross-country skier, Balsiger became concerned last winter about being able to compete in the annual marathon he has participated in for more than 30 years.

"On good days, I could ski for an hour or hour and a half. Other times I'd go ten minutes and realize it wasn't going to work, and I'd come back," he says. "I'd even hang on crutches in the morning sometimes to keep the weight

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off of one leg, and sometimes it would be better by afternoon, sometimes not."

Balsiger received a second injection treatment in February, eleven days before the race.

"For the next ten days, each day, my symptoms decreased. The morning before the event, all symptoms were gone," he says. He completed the course in just over five hours and has maintained his active lifestyle.

"I'm riding my bike around the orchard, spending two to three hours at a time pruning grapevines, hiking, splitting firewood and shoveling snow," he says. "I've learned that your back doesn't get better from doing nothing. You have to keep up some appropriate level of activity."

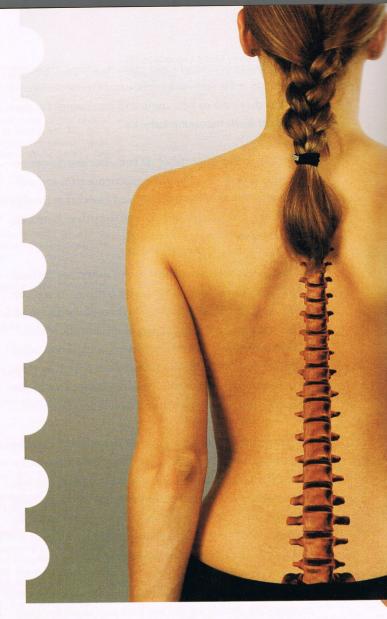
David G. Borenstein, MD, is chief of the Washington, D.C., division of the Center for Rheumatology and Bone Research and medical director of the Spine Center at George Washington University Medical Center. He has lectured on low back pain on behalf of the Arthritis Foundation.

"Osteoarthritis is well known to affect the lumbar spine; the question is whether it hurts in everyone," Dr. Borenstein says. "Some people have significant joint changes and are relatively pain-free. Others have relatively minor joint changes but have a significant amount of pain. It's the interaction between the changes in the musculoskeletal system and the nervous system that results in the full disease of osteoarthritis. So even though it's a musculoskeletal problem, it's still a painful one."

Although several scans and tests can be used to gain information about a patient's condition, an X-ray is usually adequate to diagnose osteoarthritis of the lumbar spine, Dr. Borenstein says.

Many patients benefit from appropriate exercise and physical therapy. Maintaining a healthy diet and lifestyle is also helpful.

"People need to remain active," Dr. Borenstein advises. "That doesn't mean running a marathon, but it does mean walking the stairs or parking your car to walk a little further. Our musculoskeletal systems are made to be used. The more we're able to remain mobile, the better. This may not be easy for those who are having a significant amount of discomfort, but trying to stay mobile does help. Trying to



maintain a good weight for your frame is a good thing. Five or ten pounds is a significant amount of additional weight to carry around especially when you're hurting."

Medication for osteoarthritis is prescribed in a step-wise approach, usually beginning with acetaminophen or non-steroidal anti-inflammatory drugs (NSAIDs). Stronger medications including longer-acting opioid therapies may be prescribed if necessary.

Where applicable, physicians sometimes use a series of two injections called medial branch nerve blocks as diagnostic tools to temporarily block nerve pain and determine its specific source. In successful cases, a procedure called radiofrequency ablation (RFA), or rhizotomy, may be recommended to end pain for a longer period. In an RFA, radiofrequency waves are used to heat the identified nerves and end their ability to transmit pain signals to the brain. RFA and medial branch nerve blocks are both usually out-

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Find Your Path:

Talk with your physician about these noninvasive, complementary therapies that may provide relief:

- TENS (transcutaneous electrical nerve stimulation) Unit
- Back Bracing Systems
- Yoga
- Acupuncture
- Water Therapy

patient procedures done under local anesthesia.

"Most people are happy with nine months to a year of pain relief from an ablation procedure," Dr. Greenberg said. "Some have much longer relief, some shorter. And many of these nerves will eventually reinnervate to some degree."

Potential risks of these and other spinal procedures include infection, bleeding, worsening pain and dural puncture, where cerebrospinal fluid can leak out of the space around the spinal cord and cause a spinal headache. These complications are all rare, according to Dr. Greenberg.

Lois Pike, an advocate for those managing chronic pain, understands the frustration and depression that can come with having to limit certain hobbies and activities, but she doesn't focus on it. She had enjoyed playing sports during her school years, and when she had to hang up her tap shoes seven years ago at age 60, she says she was initially angry. "I absolutely couldn't do it anymore, because of the pounding and stress on my bones and joints," she says.

Pike manages chronic pain caused by osteoarthritis, spinal stenosis and fibromyalgia. At the age of 26, her uterus and ovaries were removed because her doctors feared she had cancer. A diagnosis of advanced osteoporosis came later, after she broke four bones in successive incidents.

"I went through a period where I hated my body because I felt like it was betraying me," Pike says. "I thought, 'I feed you. I take care of you. I do what I'm supposed to do, and you've kicked me again.' But I don't feel that way anymore. I don't say, 'Here we go again.' I ask 'What am I going to do about this?' If I can't do anything, I write whatever it is on a piece of paper and put it into my prayer jar. Then I let go of it. Worning is a waste of time. You don't live in the moment if you worry."

Pike also recommends a manageable level of physical activity, as well as mental exercises like the crossword puzzles she enjoys in her daily newspaper. "I do go to the gym, but I don't use the treadmill, I use the elliptical machine," she says. "I also do a lot of yoga. Anytime I can break a sweat at the gym, it's a good thing."

Although epidural injections did not ease her pain for long, she says that massage therapy has been beneficial, and she does not require as much pain medicine today as she has in the past.

Pike has written two books about pain management and leads a local support group. She also works part time in a retail store, where she enjoys meeting and talking to customers.

"When I was 26 and they removed my uterus and ovaries, they told me I probably had five years to live, so this is all bonus time for me," she says. "I have a different outlook than a lot of people. Staying positive is not that difficult for me."

Although joint deterioration can't be reversed, people with osteoarthritis can stay active to maintain health and mobility, and can learn to manage the condition and its symptoms.

"Part of my education with patients is that they need to view this as a medical condition," Dr. Greenberg says. "If you're diagnosed with diabetes, you're going to manage it rather than cure it. Arthritis is one of those conditions that has to be managed, and lifestyle is key. Remaining active is important, and a healthy diet is as well. Remember that optimal nutrition for your body and your heart is also optimal nutrition for your spine." {PP}