



Hughston Health Alert

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Pickleball Injuries

Pickleball, a combination of ping-pong, badminton, and tennis was created in 1965; however, during recent years it has exploded in popularity. As of 2023, pickleball was the fastest growing sport in America for the third year in a row. Currently, the Association of Pickleball Professionals estimates that 36.5 million individuals play pickleball in the United States alone. Adults from the age of 18 to 34 make up the largest percentage of pickleball players at around 30%; but athletes enjoy the sport across all age groups from the very young to people in their 80's and 90's.

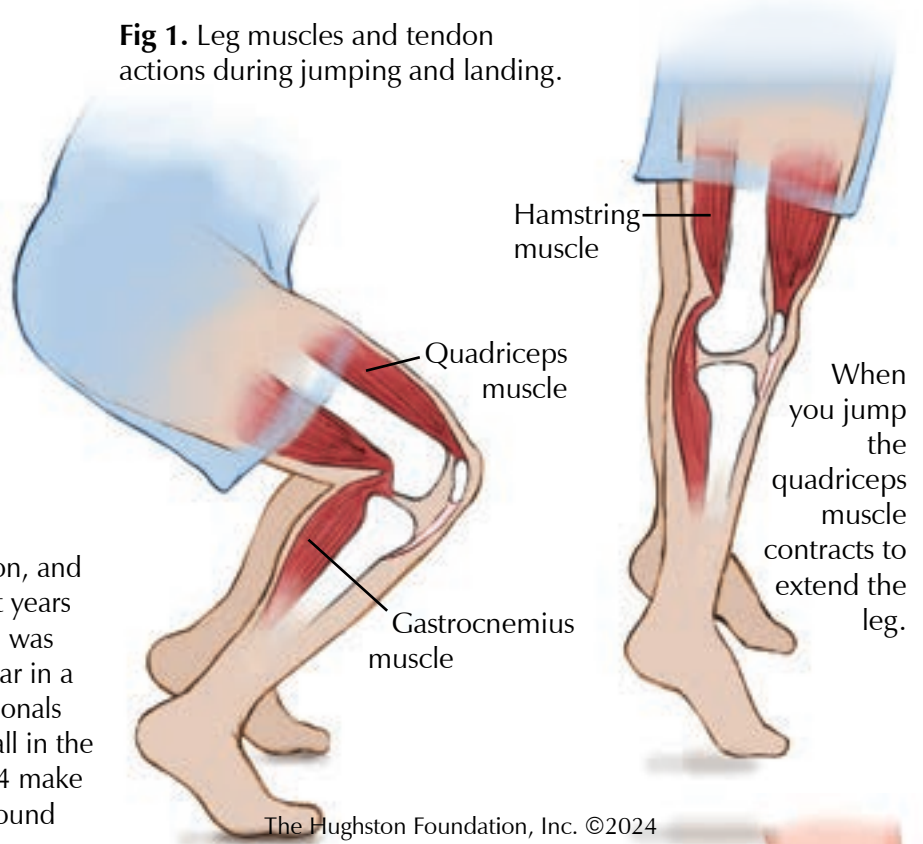
With its rise in popularity, there has also been an increase in injuries associated with the sport. Despite pickleball being less physically demanding than tennis and safer than many other sports, approximately 19,000 pickleball injuries occur each year. Traumatic type injuries, such as sprains, strains, and fractures, as well as overuse injuries can occur when people go from being relatively inactive to a significant increase in their activity.

Lower extremity injuries

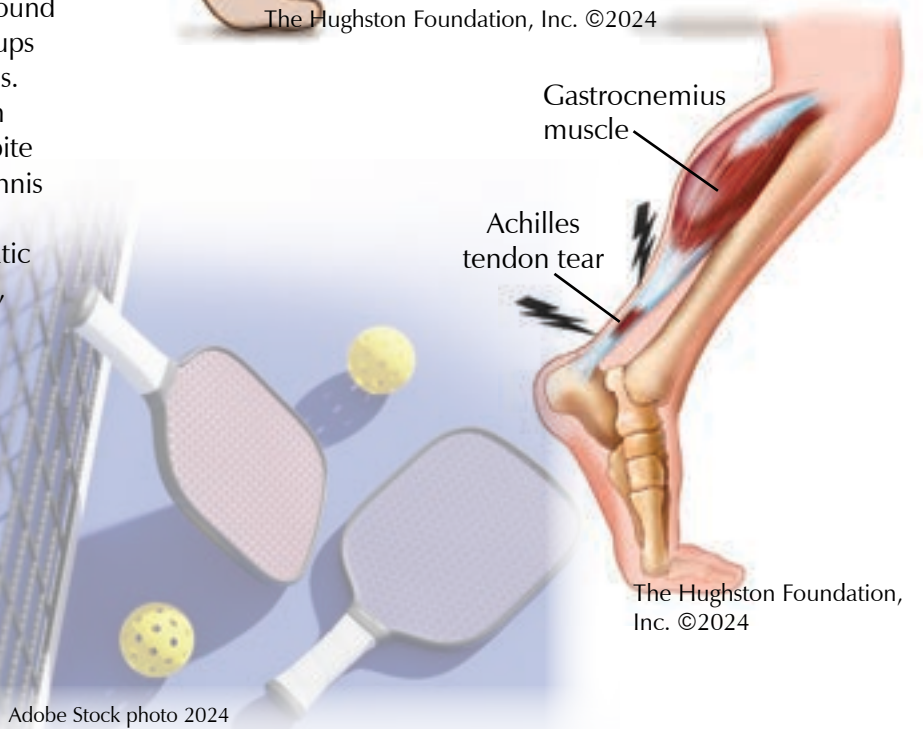
Knee and hip

The most prevalent types of lower extremity injuries seen around the knee and hip are sprains and strains. A sprain occurs when you stretch or tear a ligament (fibrous tissue that connects bones). A sprain can be very mild in nature, but it also can be serious, such as a torn anterior cruciate ligament (ACL) in the knee. A muscle strain occurs when you

Fig 1. Leg muscles and tendon actions during jumping and landing.



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injure a muscle or tendon. This often happens when you stretch a muscle too much and part of it tears. In pickleball, common areas of muscle strains involve the quadriceps muscle in the front of your thigh, the hamstring muscles in the back of your thigh, or the gastrocnemius muscle in your calf. To avoid injuries around the knee and hip, you should warm up and stretch before activity. Exercising to strengthen your quadriceps and hamstrings, and the muscles around your hip can also help you avoid injury.

Ankle injuries

As with the knee, ankle sprains in pickleball vary in their degree of severity. One such injury, an Achilles tendon tear involves the thick band of tissue that connects your calf muscle to your calcaneus (heel) bone. Often the injury occurs in a new player or someone who has been inactive, although seasoned athletes can also rupture their Achilles tendon. The injury occurs when the player takes a quick step on the court and feels or hears a pop, experiences pain in the back of their ankle, and has difficulty walking. A ruptured plantaris tendon, often called tennis leg, can mimic an Achilles tendon rupture. The plantaris tendon runs along the back of the calf. This particular tendon is a vestigial structure, which means that it does not have any apparent purpose. With the plantaris tendon rupture, you also feel or hear a pop, but experience pain in the posterior (back) aspect of the calf. Orthopaedist treat plantaris ruptures nonoperatively and allow athletes to return to play when symptoms abate. As with injury prevention around the knee and hip, you can decrease your risk of injury around the ankle by stretching your calf muscles and hamstrings prior to playing and begin warming up slowly on the court.

Upper extremity injuries

Upper body injuries in pickleball can occur in the hand, wrist, elbow, and shoulder and usually result from a fall or slip on the court. Acute (sudden or traumatic) wrist injuries are one of the most typical complaints. These occur while tripping or falling and reaching with an outstretched hand to break a fall. Injuries to the wrist can be a relatively minor sprain or more severe in terms of a broken bone that may require surgery.

Pickleball players experience some of the same overuse injuries seen in tennis involving the upper extremity. For example, lateral epicondylitis, often called tennis elbow and now seen in pickleball players results from inflammation of the insertion site of the tendons that extend the wrist and fingers. Repeated stress on the tendons while playing pickleball cause inflammation, swelling, and sometimes tearing of the tendons. Symptoms usually consist of pain and weakness when grasping objects or trying to lift objects with your palm facing down. Treatment includes rest, ice, activity modification, bracing, injections, and sometimes surgery.

Fig. 2. Acute injuries to the wrist often happens during a trip or fall and an attempt to break the fall with an outstretched hand.

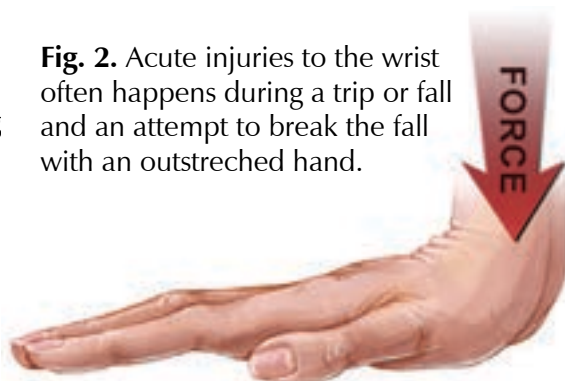
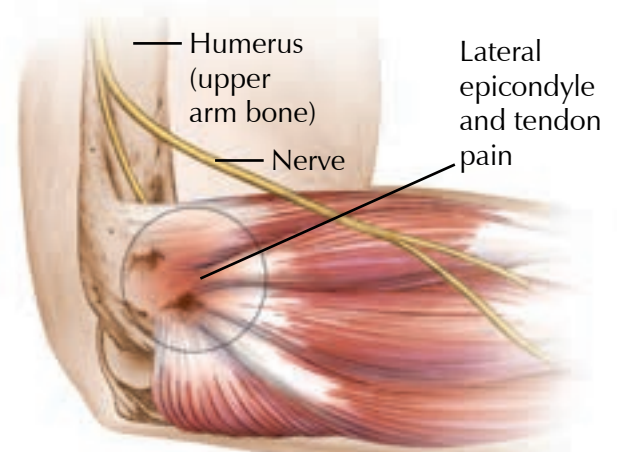


Fig. 3. Elbow anatomy and a source of lateral epicondyle pain



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Prevention

Prevention can play a major role in reducing the risk of injury. Planning and purchasing good equipment as well as preparing your body can help prevent most pickleball injuries. For example, appropriate footwear to include athletic shoes with good traction and ankle support can help avoid slips and falls. Choose a shoe made for the court, such as those designed for tennis, pickleball, basketball, or volleyball sports. These shoes support your foot and ankle during quick pivots and movement on the court. You may also want to consider enlisting your local pickleball pro. Instructional lessons can help you develop and improve your swing, serve, and movement, which will not only help prevent an injury but can also improve your game. Further, exercising regularly with strength training and cardiovascular workouts will help strengthen your muscles and improves your overall condition. Before you step on the court, a thorough warm up and stretching routine can reduce the risk of sprains and strains. Staying hydrated before, during, and after your match helps prevent muscle cramps and benefits your overall health.

Pickleball is an enjoyable activity to play with friends or competitors, and can be a relatively safe sport to play; however, injuries do occur. In the event of an emergency on the court, you should seek immediate medical attention. For most injuries, applying the “R.I.C.E.” treatment protocol is usually a good place to start. Rest, ice, compression, and elevation can help to alleviate the immediate symptoms. If symptoms continue to persist, you should follow-up with your orthopaedist to evaluate your injury and develop an effective treatment plan.

Jake Gudger, MD
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CrossFit

FOR A LONGER, HEALTHIER LIFE

CrossFit, an energizing fitness program, produces measurable results through lifestyle changes that focus on exercise, training, and nutrition. The workouts involve dynamic models of high-intensity, functional movements. Although it may seem intimidating at first, the truth remains that CrossFit really is for everyone.

What are the benefits?

Especially as we age, staying active and healthy can be critical to celebrating life, being productive, and enjoying time with family and friends. CrossFit has numerous benefits, such as better cardiovascular health, improved strength and flexibility, increased bone density, and better sleep. CrossFit focuses on functional fitness, which means the structure helps you do the activities necessary in daily living.



What are high-intensity, functional movements?

Functional movements are part of our daily activities, such as rising from a chair, climbing stairs, squatting to pick something up, or putting objects away. CrossFit classes incorporate these movements into exercises that help you perform your daily activities better, longer, and with less risk of injury. For example, burpees develop the ability to get back up after a fall. Working on a pull-up progression can help you get into your pickup truck. Performing movements such as squats, lunges, and overhead presses build muscle, stamina, and endurance. Tailored workouts focus every movement to fit your skill level and abilities, while your CrossFit coach helps determine how much intensity is right for you.



Tracking your progress motivates you to stay consistent. As you continue, you will notice that daily activities become more manageable, you're out of breath less often, and you sleep better.

What are CrossFit Classes like?

This is by far the best part! Classes are fun, energizing, and guided by knowledgeable coaches, so you're never alone. You will become part of a fantastic community. You'll have a group of motivated, accepting, and encouraging people alongside you, doing the work just like you are. Workouts are a little different every day, so you're always learning new skills, developing strength, and improving your mobility. And it's never dull!

Classes often begin with a warm up to loosen up and get your heart rate going. Then a strength portion follows, and last, an 8 to 30 minute portion that combines movements in a repetitive structure. This includes cardio and strength movements for a specific time or number of repetitions. Your times and reps are recorded in a computer program so you can look back at previous scores to track your strength and progress.

Who gets injured?

Injuries are more prevalent in athletes who don't have supervised coaching. The most common injuries are to the low back and shoulder and the most common exercises resulting in injury are squats and deadlifts. Structured coaching to correct form absolutely helps prevent injuries. Our egos, working within our individual abilities, and using proper form are other less talked about factors in preventing injuries. If you work outside of your limitations, you are more likely to sustain injuries just like any other sport. So leave your ego at home and listen to the coaches!



What to do if you are injured?

Muscle pain and strains are the most common types of injuries reported in CrossFit. Like any other exercise regime, you may experience muscle soreness and fatigue, especially if working out is new to you. If you experience an injury, the first steps should be to rest, ice, elevate, and try some over-the-counter anti-inflammatory medication. In addition, asking the coach if your technique is correct and if you are placing any unnecessary strain on your joints may help you avoid reinjury. If you experience worsening symptoms or sustain a dislocation or broken bone, seek medical treatment at your local emergency facility.

What are you waiting for?

No matter where you are in life—your age, skill level, or physical mobility—CrossFit can help you reach your fitness goals. The numerous and far-reaching benefits allow you to live a longer, more active lifestyle surrounded by a supportive community. To find a gym near you, visit www.CrossFit.com and start your journey today. Most CrossFit gyms offer a “foundations” course, which is a great place to start and learn proper form and technique.

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Dr. Ryan Geringer and Dr. Patrick Fernicola, physician volunteers at the CrossFit Games.

Do you Need Home Health Therapy after Surgery?

If you and your doctor have decided it's time for surgery, you may wonder how you are going to get through your rehabilitation. Often, the surgeon begins discussing your recovery options before your scheduled surgery. If you have an unscheduled surgery, say in the event of an accident, then a discharge planner or caseworker in the hospital will work with you. For many patients, home health therapy can be the answer to recovery, but is it right for you?

Typical home health services may include skilled medical care from specialists such as: physical therapists, occupational therapists, speech therapists, and nurses. This service sends medical staff directly to your home to work with you and your support group (a family member or friend) to carry out the orders from your doctor, and to assist with your care and therapy after your surgery. Many agencies also offer intermittent assistance from an aide, such as bathing and dressing assistance, but this type of help is not considered a skilled service, and can only be approved if you already have a skilled service involved in your care. The aide is your personal care assistant; therefore, they cannot go shopping for you or do full house cleaning.

It is important for you to understand that the choice is yours, as to which agency you select to provide care for you at home. In the hospital, you should be made aware of all the different home healthcare organizations, based on where you live, so you can choose who you prefer to come to your home. You can also visit Home Health Compare at <https://www.medicare.gov/care-compare>, to review the different agencies available in your area to help make your decision. Once your doctor discharges you home, the home health agency will make contact and see you within the first 24 to 48 hours to initiate the admission process. A nurse or a physical therapist can complete your first visit and admission.

To qualify for home health, your doctor must affirm that you are homebound. This means that it takes a taxing effort or you require the assistance of another person to leave your house, or that your doctor says you medically cannot leave your home to attend outpatient therapy. Most insurance programs, including Medicare, will cover home health. Private plans can vary, so you will need to check on your specific benefits to see if you have home health coverage, and if there are any copayments required.

In general, recovery after orthopaedic surgery may require a few visits from a nurse for medication and wound care concerns. A physical therapist can assist with recovering independence in your mobility, with transfers, standing, and walking with an assistive device. Physical



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therapy can also help you regain range of motion, especially if you had knee replacement surgery. Occupational therapy can be helpful with improving your independence with bathing and dressing. If you had shoulder surgery, therapy can also be beneficial, especially if you used an assistive device prior to your surgery. Depending on your evaluation and your doctor's approval, you may have 2 to 3 therapy sessions each week.

Home health is an intermittent service, with visits occurring 2 to 3 times a week, and may be short term, 2 to 4 weeks, based on how quickly your recovery progresses. Each visit often lasts 45 minutes or so. Once you have regained your independence in mobility, but may still benefit from further therapy, then a collaborative decision between you, your home health team, and your physician, could be to progress you to outpatient therapy.

For many, a few weeks of home health is beneficial to help progress to outpatient therapy. Home health gives you the time you need to heal, reduce pain, and improve your mobility. After all, if you elected to have surgery, say for your knee or hip, you desire to get moving again without all of the pain and discomfort, so the sooner you can regain your independence the better!



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Chronic Low Back Pain

Lumbar (low back) pain is widespread with up to 84% of individuals experiencing back pain within their lifetime.¹ Physicians define chronic lumbar pain as back discomfort lasting longer than 12 weeks. There are many causes of low back pain—lumbar strain, degenerative disc disease (Fig. 1A), lumbar stenosis, inflammatory autoimmune diseases—all of which require a specific treatment approach. There are 3 types of low back pain: 1) referred pain, which feels dull and achy and sometimes moves around and varies in intensity; 2) axial pain, which can range from sharp, shooting pain to dull and achy while remaining in one specific spot or region; and, 3) radicular pain, is excruciating, burning, or stinging pain caused by compression or inflammation of a spinal nerve root. Sometimes there is no definitive finding to explain the discomfort. In any case, an orthopaedic spine specialist can give you an appropriate physical exam to properly diagnose the problem and tailor a specific treatment.

Diagnosing low back pain

The diagnosis of chronic low back pain begins with a formal examination by a health care provider, and can include x-rays as well as a neurologic examination. Characterization of the discomfort is important. People may experience numbness and/or tingling, leg pain (one leg or both) which may include cramping. Neurologic examination, including deep tendon reflexes, motor strength, and sensory findings, can help localize the exact lumbar level. Neurologic symptoms including weakness, fevers, and leg pain may warrant a magnetic resonance imaging (MRI) or computed tomography (CT) scan (tests that shows bones, muscles, tendons, and ligaments) to better diagnose the exact etiology, or causes.

Nonsurgical treatment

Nonpharmacological treatments include home-based therapy exercises, formal physical therapy, and manual manipulation. Your doctor may use a combination of these approaches and tailor them to your specific needs. Therapy can be particularly important with focus on isometric core strengthening exercises (muscle contraction without joint

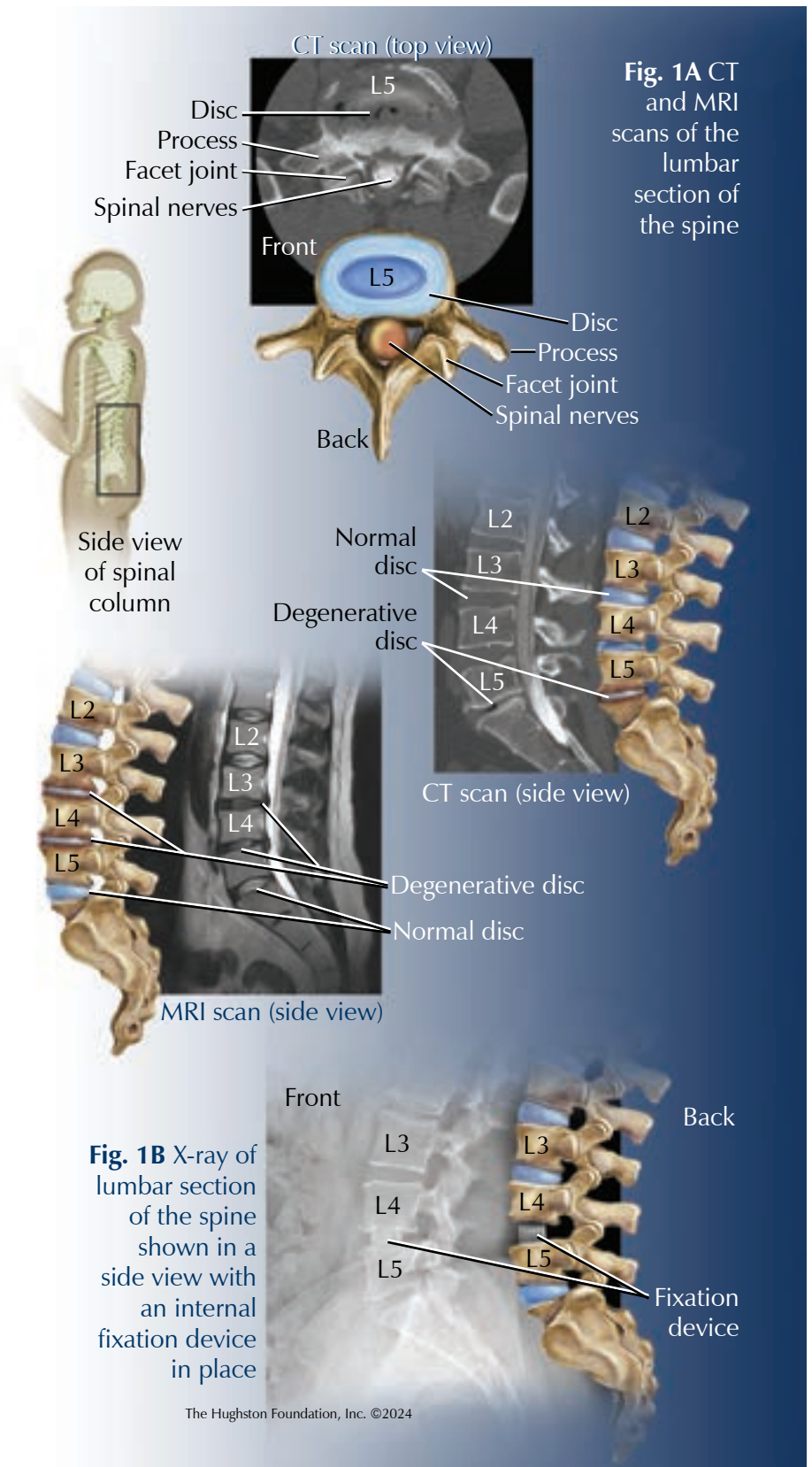


Fig. 1B X-ray of lumbar section of the spine shown in a side view with an internal fixation device in place

movement) and stretching targeted tight muscle groups. Aerobic exercises have been shown to improve pain, disability, and mental health in patients who have chronic nonspecific axial low back pain.² Exercises such as yoga, Pilates, and tai chi can be helpful as well. Physicians often prescribe aquatic therapy to older patients since it offers low stress on the joints.

Specific modalities, such as dry needling, can be used and has been seen to help patients who have chronic low back pain.³ Cognitive behavioral therapy combined with a well-balanced therapy program can be a useful adjunct to further decrease back pain.

Pharmacologic treatment options can supplement a therapy program. Nonsteroidal anti-inflammatory drugs (NSAIDs) such as ibuprofen or naproxen are first-line drugs. The success of this treatment solely depends on the patient's ability to tolerate the medication. NSAIDs can cause gastrointestinal issues and may negatively affect kidney function. When a patient cannot tolerate NSAIDs, their physician may recommend acetaminophen or weak opiates.

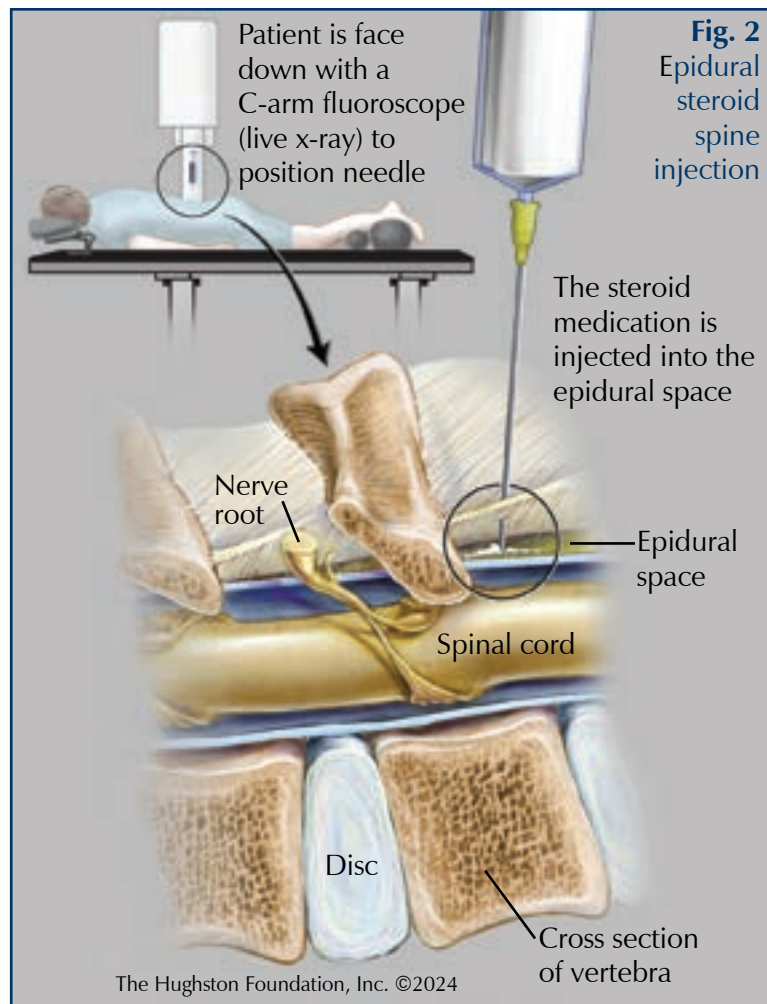
Topical medication options can be useful as a short-term treatment. Lidocaine patches, topical NSAIDs, or topical menthol are just a few of the topical medications that can be used. Physicians do not recommend long-term narcotic use for low back pain. Narcotics can result in dependence and even increase pain. Opioid induced hyperalgesia, a phenomenon doctors see with chronic narcotic use, results in increased sensitivity to painful stimuli and magnifies the pain response.

Injections and radiofrequency ablation treatments can help control pain. Injections can vary from epidural steroid injection (**Fig. 2**), selective nerve root blocks, medial branch blocks, facet injections, and radiofrequency ablation. Physicians, surgeons, radiologists, and pain management specialists can administer these treatments.

For patients who are not good surgical candidates, spinal cord stimulators (implant that sends low-level electricity into the spinal cord) can be an alternative. Physicians often use a temporary trial device to see if spinal cord stimulation could be an effective treatment option. For patients who continue to have significantly limiting pain, despite using multi-modality treatments, their physician can refer them to a pain management specialist.

Surgical treatment

Doctors reserve surgery for patients who have specific pathology, including severe stenosis (compressed spinal cord) or marked instability resulting in significant functional disability. Surgical options include fusion (bones fused together permanently), disc arthroplasty (replace disc with implant) (**Fig. 1B**), or laminectomy (decompression surgery). Without neurologic decline/deficit, there should be a complete failure with multi-modality conservative management before proceeding with surgery. Surgery in the setting of chronic back pain has the potential for causing worse pain and thus spine surgeons do not make a recommendation lightly.



Managing the pain

Identifying the cause of chronic back pain can be extremely difficult. There are multiple treatment options—therapy and its related modalities, pharmacologic treatment options including both narcotic and non-narcotic, and lastly, surgery. Ultimately, the treatment success lies with the patient's understanding and expectations, especially since treating chronic back pain is often not about achieving complete pain relief, but rather, managing the pain effectively and improving overall quality of life.

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- Providing training materials at meetings for healthcare professionals, such as occupational health nurses, and future healthcare providers.
- Materials distributed at sporting events, such as the Georgia High School Soccer Association Championship, and Safe Kids programs to educate the public about safety concerns for our youth.

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