



Inside...

- Tennis Elbow
- Outliving Life Expectancy
- The Difference a Gift Makes

Interventional Pain Management QUESTIONS FOR A SPECIALIST

You may feel as if you are on an endless journey to find pain relief. If you feel that way, you are not alone. Most patients go to an interventional pain management physician after they have exhausted many other treatments. If you suffer from chronic pain, interventional pain management may be the solution you have been searching for.

What is interventional pain management?

When pain has become so extreme that it makes everyday a struggle, it is time to see a physician who can help. With interventional pain management, your physician uses minimally invasive procedures to interrupt the nervous system's transmission of pain by blocking the messages sent from nerve endings to the brain. Depending on your specific condition and symptoms, your doctor will discuss the procedures available to you. The goal of the treatment is to disrupt the pain cycle and reduce or completely alleviate your pain.

What is the difference between pain management and interventional pain management?

Pain management consists of noninvasive methods such as prescribing medications, whereas interventional pain management includes minimally invasive treatments. For example, your primary care physician may prescribe an over-the-counter medication to help ease your pain for a short duration of time, while your interventional pain management physician will often perform a procedure that can block the pain or permanently correct the problem that is causing your pain.

Fig. 1. Facet joint injection: steroid medication is injected into the facet joint space to relieve back pain.

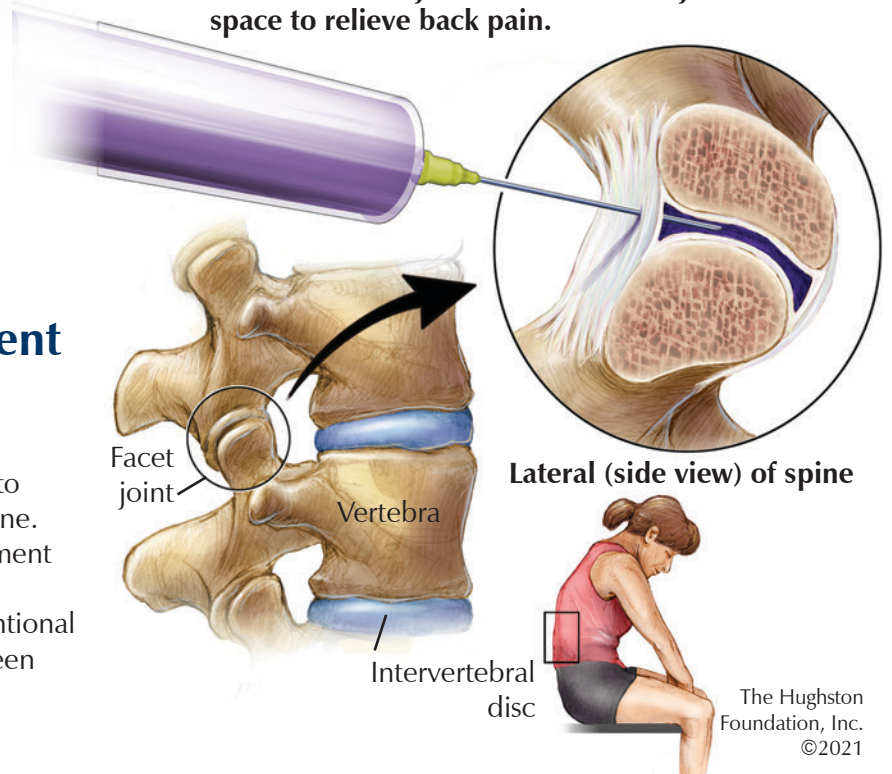
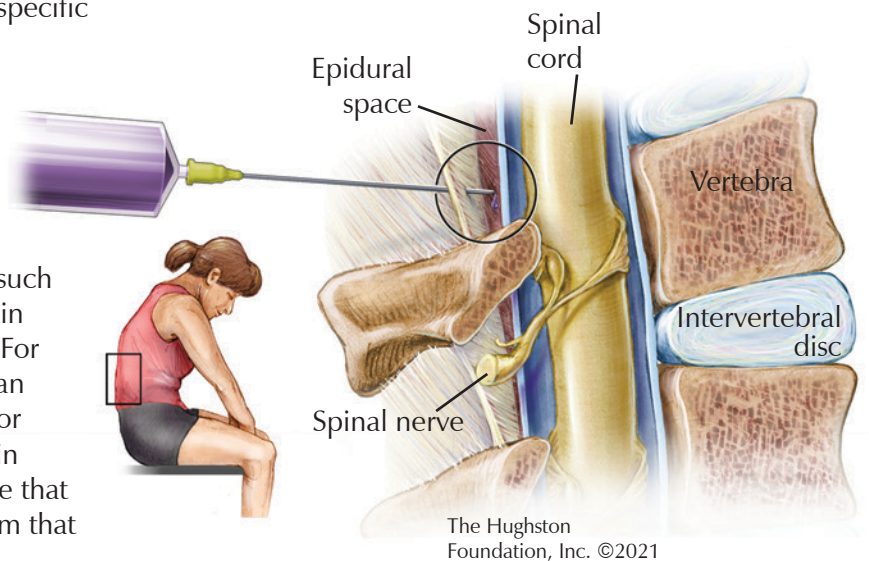


Fig. 2. Epidural injection: steroid medication is injected into the epidural space to relieve back pain.

Lateral (side view) of spine with cross section



Why not take medication?

Taking a pain pill may appear to be a quick and easy solution; however, pain medications can have adverse side effects. Your physician may prescribe acetaminophen to treat mild to moderate pain or a stronger medication, such as an opioid, for acute pain. If your doctor prescribes these medications, he or she will instruct you to take them for a limited time so you are less likely to experience a side effect, like becoming addicted to an opioid. Besides dependence, opioids and other pain medications can cause a number of side effects such as, constipation, nausea, vomiting, dry mouth, sleepiness, dizziness, confusion, depression, itching, and sweating. Taking medication is helpful for some types of pain, but for relief of chronic pain, you may need another specialized treatment.

What are the benefits of interventional pain management?

The procedures are minimally invasive, usually take under an hour, and generally do not involve any kind of incision or scar. Additionally, for the vast majority of procedures, there isn't any hardware such as plates or screws inserted into your body. Your doctor can also treat multiple joints at one time, such as injecting both knees or target multiple joints of the spine that may be causing pain. It is also ideal for patients who cannot undergo a major surgery due to other health conditions or for those who simply do not want surgery.

Seeing an interventional pain management physician

During the doctor's visit, the physician will take your medical history and perform a physical exam, which helps evaluate the nature of your pain. Your physician may order x-rays or magnetic resonance imaging (MRI, a scan that shows the bones, muscles, tendons, and ligaments). Not all patients will require an MRI, but based on the severity of your pain and the results of your physical exam, the scan can help determine the extent of damaged structures. During the visit, your doctor will likely ask questions to help determine the course of treatment. For example, is this the first time you have had pain or have you had other problems before.

Am I a good candidate for interventional pain management?

Interventional pain management can provide relief if you suffer from an injury or ailment that limits your normal daily functions or physical activity, especially if you have a soft tissue injury such as a partial tear in your tendon, ligament, or a muscle. If you had other treatments such as physical therapy, nonsteroidal anti-inflammatory medications (NSAIDS), or steroid injections that did not provide significant or long-lasting relief, another type of interventional pain treatment may be

a viable solution. You may want to try interventional pain management if you would like to explore a minimally invasive alternative rather than having a major surgery, such as spine surgery.

Many patients suffering from back or neck pain are not ready for invasive surgery like a spine fusion. They are also looking for a longer lasting alternative to medications and one that has fewer side effects. Patients can become frustrated with the duration of relief of other nonsurgical options, such as physical therapy. You should visit a pain management specialist if your attempts at finding relief have failed.

Make an appointment to see a specialist if:

- You have pain that has lasted more than 3 months
- You tried over-the-counter medications and they did not help
- Your primary-care physician has referred you to a pain specialist
- Your pain continues to limit your activities and movement, which is affecting your quality of life
- You do not want or cannot have invasive surgery and need another treatment option

The Hughston Foundation, Inc. ©2021

Is interventional pain management safe?

The risk of side effects exists for most medical treatments and interventional pain management is no different. Rare, but possible, complications caused during a procedure can include an allergic reaction to the local anesthetic, damage to the underlying structures, infection, and hematoma (collection of blood) or seroma (an accumulation of blood or fluid under the skin that may require removal). Although each of these outcomes are possible, they are exceedingly uncommon, and the overwhelming majority of patients do very well after they undergo an interventional procedure.

Common types of treatment

Interventional pain management provides patients with minimally invasive options to treat pain without the use of drugs or major surgery. These patients often suffer from pain caused by arthritis, bursitis, degenerative disc disease, herniated discs, injuries, osteoporosis, rheumatoid arthritis, sciatica, and tendonitis. Depending on your condition, your doctor will determine which procedure is best for you. Nerve blocks, injections, ablations, spinal cord stimulations, and orthobiologics are just a few of the techniques interventional pain management includes.

Nerve blocks: Since pain travels through nerves to the brain, physicians use nerve blocks to interrupt the signals. The type of nerve block your doctor uses will depend on your diagnosis and health history. After a nerve block, your pain relief may last for weeks, months, or in many cases, years. Depending on your problem and the type of

procedure you undergo, many patients will experience permanent pain relief in the area that was treated.

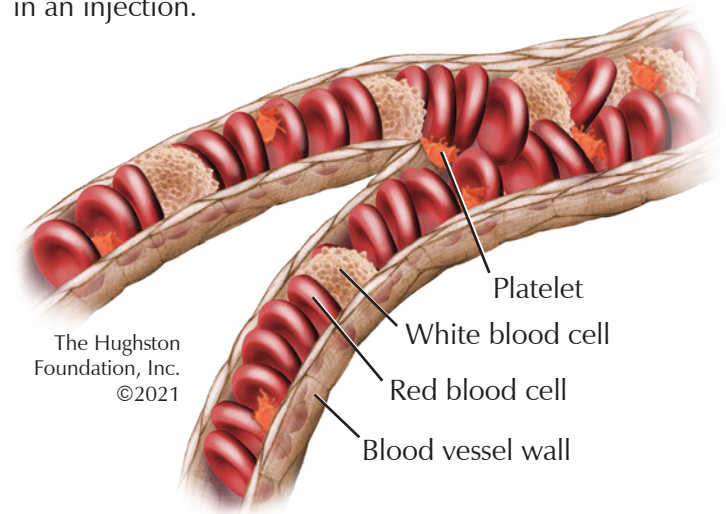
Injections: Usually include a numbing agent and steroid that targets different areas of pain in the body. Some patients prefer injections, such as facet joint injections (Fig. 1), epidural steroid injections (Fig. 2) and trigger joint injections because they are easily administered, minimally invasive, and provide effective pain relief.

Radiofrequency ablation: Uses a radio wave to produce an electrical current that physicians use to heat an area of nerve tissue. The nerves that are targeted are only used for sensation, and are not required for any kind of movement of your body and are therefore safe for treatment. This procedure decreases the pain signals in the area of treatment and is most often used for treating low back or neck pain. There are many other types of nerve ablations for other areas of the body. This can make it useful in particular for those patients who wish to avoid surgery.

Spinal cord stimulation: Treats chronic pain by applying gentle electrical currents to the source of your pain. Your physician will apply electrical leads close to the spinal column, while also inserting a tiny generator into the abdomen or buttock. The generator emits electrical signals to the spinal column, thus blocking the brain's ability to perceive pain. For many patients who have suffered with chronic pain for years and have failed things such as back or neck surgery, this can be a life-changing treatment.

Orthobiologics: The goal is to aid the body's response by using orthobiologic products, which are substances naturally found in the body. In particular, research attention has been on using adipose (fat) tissue (Fig. 3),

Fig. 4. Blood components in a vessel and a blood sample before and after spinning in a centrifuge that can be used in an injection.



The Hughston Foundation, Inc. ©2021

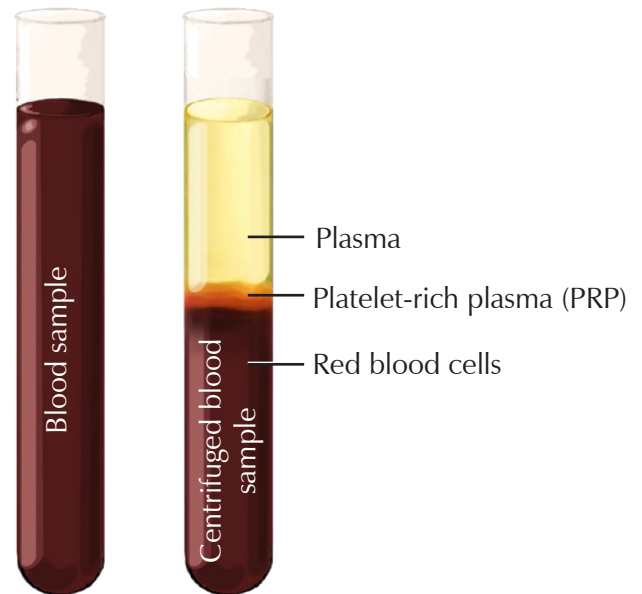
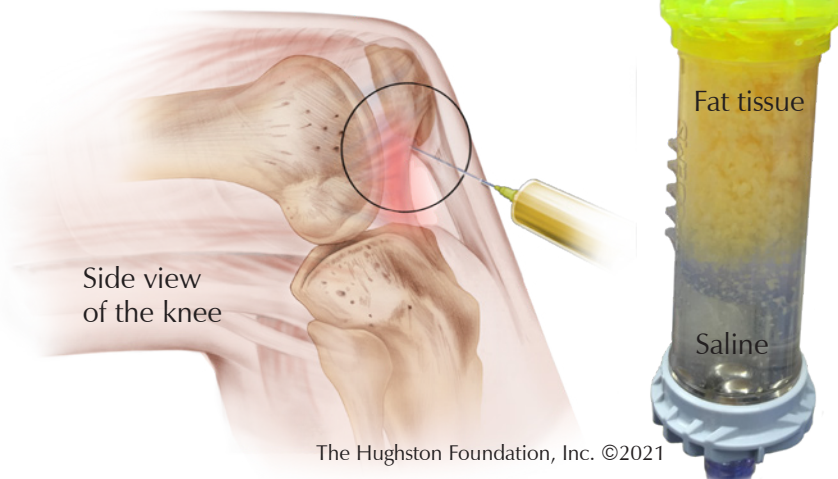


Fig. 3. Injection of fat tissue into knee joint (below), harvested fat tissue separated to prepare for injection (right).



The Hughston Foundation, Inc. ©2021

scaffolds, stem cells, platelet-rich plasma (PRP) (Fig. 4) and growth factors in orthopaedic surgery and nonsurgical treatments. These procedures are minimally invasive and while no treatment can fully heal damaged joints, these approaches are showing promise in an array of conditions.

Start a pain free journey

Your journey to find pain relief may have been a long one. Being inundated with pain impacts every part of your life. It leaves you tired, irritable, distracted, and of course, hurting. See an interventional pain management physician for a complete and thorough evaluation to start a new journey of living pain free.

*Forrest P. Allen, DO
Nashville, Tennessee*

Tennis Elbow

Lateral epicondylitis (tennis elbow) is a type of tendon injury at the elbow caused by overuse of the forearm muscles. Physicians gave it the nickname because of its association with racquet sport athletes; however, tennis elbow can also develop from everyday work or recreational activities (**Fig. 1**) Patients who experience lateral epicondylitis feel pain laterally, or toward the outside of the elbow, and it usually develops gradually over time.

Elbow anatomy

Tennis elbow affects the tendons (attach muscle to bone) of the forearm muscles that allow us to bend, straighten, and rotate the forearm (**Fig. 2**). The bony projection on the outside of the elbow is the lateral epicondyle. It extends off the condyle, which is the rounded, knuckle-like bone ending of the humerus (upper arm bone), that articulates with the radius and ulna (forearm bones) to form the elbow joint. The tendon involved attaches to the extensor carpi radialis brevis (ECRB) muscle that originates from the lateral epicondyle, which is the area where most patients experience pain with tennis elbow.

How did I get tennis elbow?

Many patients ask, how do I have tennis elbow if I don't play tennis? Physicians refer to the injury as tennis elbow since tennis players often use vigorous repetitive movements that involve the forearm muscles while playing the sport. However, risk factors include both occupational and recreational activities. For example, painters, plumbers, and carpenters have a higher risk for injury. Tennis elbow is also most common in patients between the ages of 30 and 50. Sometimes, the symptoms of tennis elbow are idiopathic, or without an identifiable cause.

If you are a tennis player and you experience elbow pain, the symptoms can be caused by your technique or equipment. For example, a stiff racquet and strings can

Fig. 1. Overuse of forearm muscles from a work environment.

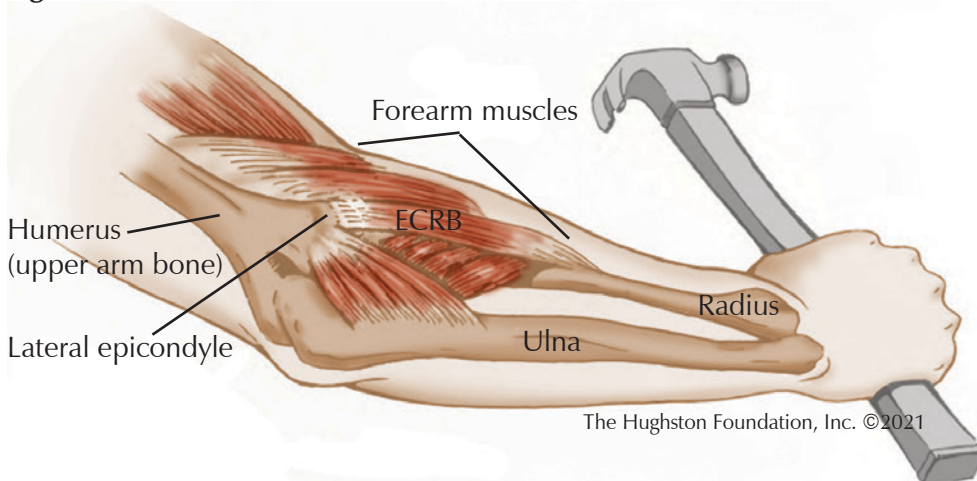
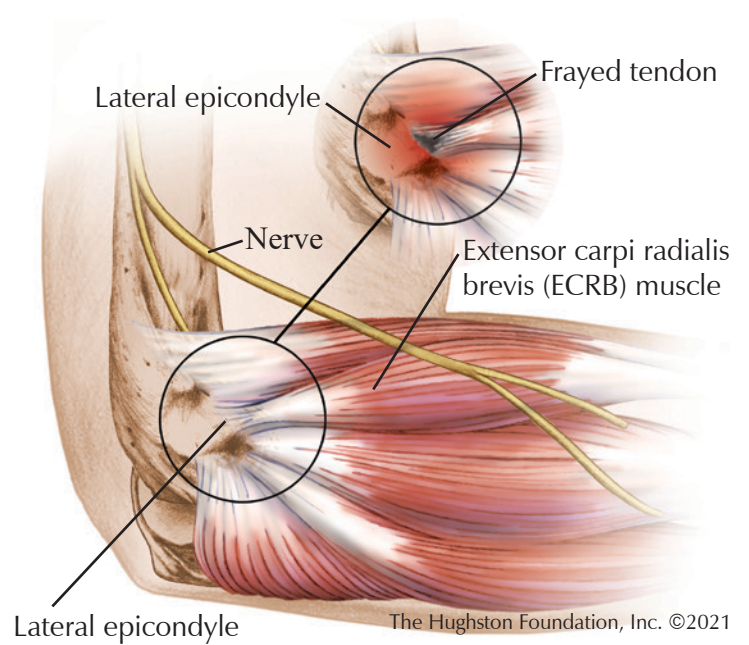


Fig. 2. Forearm anatomy with tennis elbow.



cause an increase in the force transmitted to the arm, and the vibrations or oscillations can contribute to the development of tennis elbow. Grip position, arm strength, and where and how the ball hits the racquet can also affect the amount of muscle damage that occurs over time.

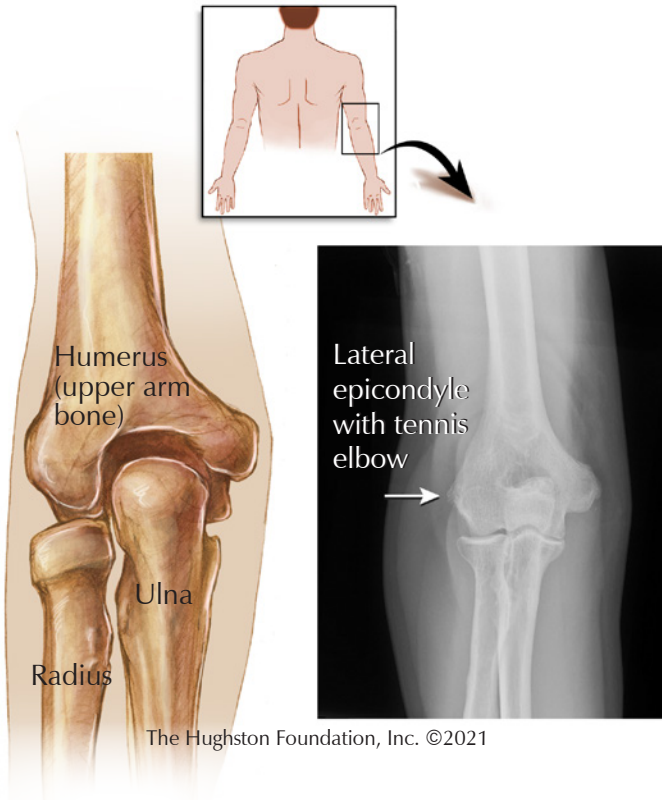
Treatment

Your orthopaedist can diagnose the disorder with a physical examination of the elbow and forearm; however, your doctor may order additional tests to rule out other potential sources of pain. These can include x-ray (**Fig. 3**), magnetic resonance imaging (MRI scan that shows the bones, muscles, tendons, and ligaments), ultrasound (dynamic images of muscles, tendons, and ligaments), or EMC (nerve studies of the neck and arm).

For most patients, tennis elbow symptoms resolve without surgery. For treatment, your doctor may prescribe anti-inflammatory medications, recommend rest from the offending activity, and suggest the use of a counterforce brace that helps to off-load the affected tendons. Your orthopaedist can also inject the area with corticosteroid medication to help relieve the pain and inflammation. An overuse injury takes time to develop and it takes time and patience for the symptoms to resolve as well.

Consultation with a physical therapist can assist with the recovery process. A physical therapist can instruct you in exercises that stretch the affected extensor tendon and other tendons and muscles of the

Fig. 3. Back view of elbow anatomy and an x-ray showing location of tennis elbow.



forearm, and gently strengthen the extensor muscles (**Fig. 4**). In rare circumstances where these treatments are not effective, your orthopaedist may recommend surgery. If you and your doctor decide that surgical treatment is appropriate, your surgeon will remove the diseased or damaged parts of the tendon and repair the healthy muscle and tendon back to the bone.

Recovery

Once symptoms resolve, most patients can return to their previous level of activity. However, there is a risk of symptoms returning over time. If patients undergo surgical treatment of lateral epicondylitis, the recovery may require a period of immobilization (no elbow motion) followed by gradual return of movement and progression of gentle strengthening exercises. Your doctor will let you know when you can safely return to sports or other more rigorous activity.

The good news

Tennis elbow is a painful condition of the elbow caused by overuse of certain forearm muscles, typically in the dominant arm. The good news is that in the majority of cases, for athletes and non-athletes alike, it can be treated without surgery. If you have pain to the outside of your elbow that has developed gradually over time, see your doctor to find out if tennis elbow is the cause of your pain. Once you see your physician, you will learn what adjustments you can make to your everyday activities and what treatments are right for you.

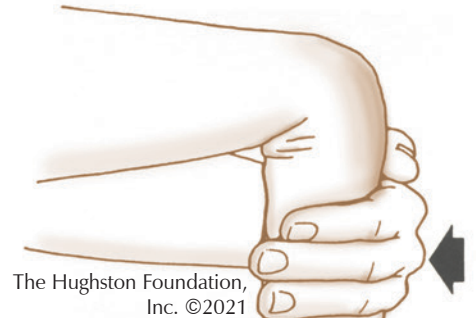
Fig. 4. Example exercises that stretch and strengthen the affected tendon and muscles of the forearm.



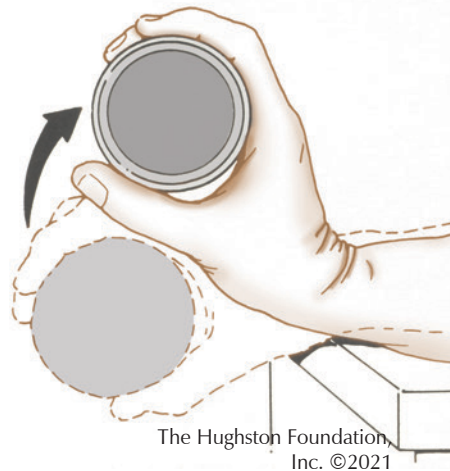
Apply firm pressure using 2 fingers on the area of pain and massage for 5 minutes.

The Hughston Foundation, Inc. ©2021

Straighten the arm out fully and push the palm of your hand down so you feel the stretch at the top of the forearm.



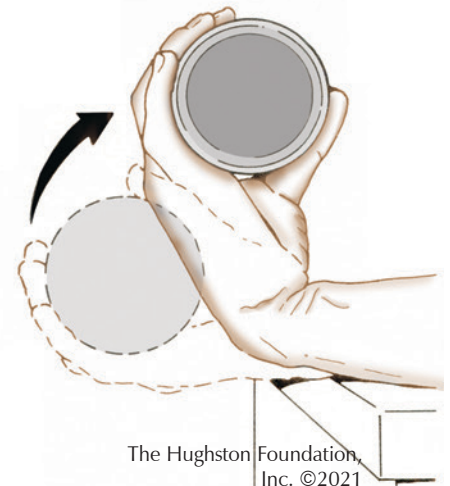
The Hughston Foundation, Inc. ©2021



The Hughston Foundation, Inc. ©2021

Hold the weight with palm facing down. Extend the wrist upward and hold this position for 2 seconds and then lower slowly to original position.

Hold the weight with palm facing up. Pull the wrist up and hold this position for 2 seconds, then lower slowly to original position.



The Hughston Foundation, Inc. ©2021

*Kelcey Dunaway, DO
Columbus, Georgia*

Outliving Life Expectancy

A child born a hundred years ago had a life expectancy of 58 years, if he or she survived to the age of 7. In 2019, according to the US Census report, the life expectancy was age 78. For the most part, the additional 20 years is the result of improved infancy and child mortality rates. Better living standards, medical advancements, and fewer deaths during war have also contributed to longer lifespans.

Yesterday, today, and tomorrow

Over the past 100 years, US life expectancy has consistently shown improvements with the exception of 2 periods of time. Strangely enough, these periods are nearly 100 years apart, between 1915 and 1920, which involved the First World War and the Spanish Flu epidemic, and between 2013 and 2018. The reason for the recent drop in life expectancy is not a result of any specific event or war, but instead it is attributed to negative societal trends, such as poor diet choices, sedentary lifestyles, and increased rates of drug and opioid abuse. The effects of the Coronavirus epidemic on life expectancy has not yet been fully determined; however, the Centers for Disease Control and Prevention (CDC) is already reporting that the American life expectancy has dropped a full year based on the data from the first half of 2020. Researchers blame this dramatic drop on both drug overdoses and COVID-19. Despite the drop in life expectancy, scientists believe that prolonged healthy lifespans are within our reach. Since more centenarians live today than ever before, researchers believe the number of people living to or past age 100 will continue to rise.

Living past life expectancy

Worldwide, approximately 573,000 people are 100 years of age or older. Studies of centenarians and lifestyle trends lead scientists to believe that 19 million people will exceed the age of 100 by year 2100. The interesting part of this upward trend is that investigators also believe that living to 100 will not be due to the genes you were born with, but rather with the choices you make. The New England Centenarian Study from Boston University School of Medicine suggests that during the first 75 to 80 years of life, genes have a small influence on longevity, accounting for only 20 to 25% of the reason that you make it to that age. Living healthy—not smoking, eating a healthy diet, getting plenty of exercise, and limiting alcohol—seems to matter the most. Which means living a healthier life early on can pay off later.

Centenarians tend to live long healthy lives without disability or illness and most only decline in health near their time of death. Thus, even if you fall short of age

100, the years that you do have will be richer and worth living. Investigators of The New England Centenarian Study believe that the older you get is directly attributed to the healthier you have been. Their aging-well model shows that centenarians are affected by disability toward the end of their lives at around 93 years. They also note that about 15% of their subjects have no clinical disease at 100 years old. Others, about 43%, do not have any disease prior to age 80 and 42% who do experience disease before 80 are able to survive the illness. From their studies of centenarians, they have determined that most people have the genetic makeup to live into their mid to late 80s in good health, and can compress the time they are sick toward the end of their life. Which means, much of someone's ability to live longer depends upon healthy behaviors.

What can I do to live a long healthy life?

It's never too late to improve your health (**Box**). Here are the top recommendations from physicians:

Box. Tips to extend your life and prolong vitality

- Exercise daily & do not sit for prolonged periods
- Do not use tobacco products
- See your physician for screenings & preventative care
- Use sunscreen & get plenty of sunshine
- Drink alcohol in moderation
- Challenge your mind & body
- Don't abuse drugs
- Eat a balanced diet & drink water
- Get plenty of sleep
- Take care of your teeth & gums
- Find your meaning & purpose
- Set goals for your life
- Maintain a strong social network for support

The Hughston Foundation, Inc. ©2021

Don't smoke. If you do smoke, quit now to allow your body to heal. The American Heart Association reports that smoking is the most preventable cause of premature death in the US. When you quit smoking your heart rate and blood pressure will go down and your lungs will start to heal. After a year, your chance of having heart disease decreases by 50% of when you were a smoker. After 5 to 15 years of being smoke-free, your odds of having a stroke will match nonsmokers.

Exercise every day. Most physicians recommend 30 minutes a day of moderate exercise. Walking, swimming, running, and cycling are all great forms of exercise. Go to the gym or take up a sport or hobby that encourages regular exercise. Taking walks, especially in parks and in nature, reduces stress and helps boost Vitamin D.

Move more. A growing number of studies are looking at the effects of sitting for prolonged periods of time on mortality in adults. Researchers believe that sitting for

long periods may increase your risks for heart disease, dementia, diabetes, deep vein thrombosis, back pain, osteoporosis, and cancer. If you are sedentary for hours, take short breaks often throughout the day to move around and stretch your muscles.

Eat healthy and eat fewer calories. We are overwhelmed with weight loss programs, which makes it hard to decide what is best for you. The CDC recommends that you reduce calories by eating foods that are lower in calories, such as fruits and vegetables that contain more water and are high in fiber. Managing portion size is another way to avoid overeating. They also suggest that you watch what you drink. Many drinks, such as sodas and sports drinks contain as many calories as a meal.

Limit alcohol. Increased alcohol consumption can cause poor judgement, reduced reaction time, and loss of balance and motor skills. It also carries an increased risk of certain cancers, stroke, and liver diseases. Add in the increased risk of motor-vehicle accidents and violence and you have lots of reason to drink in moderation.

Talk to your doctor

It is never too late to make healthy choices. However, be sure to consult with your physician before making changes to your diet, activity level, or adding supplements to your daily regime. Teaming with your doctor and following a medically supervised program can put you on the road to a longer, healthier life.

*Dennise Brogdon
Columbus, Georgia*

EXERCISE DAILY

- Reduces stress
- Boosts Vitamin D

MOVE MORE

- Decrease risk of heart disease, dementia, deep vein thrombosis, back pain, osteoporosis, and cancer

DON'T SMOKE

- Decreased risk of heart disease and stroke
- Heart rate and blood pressure return to normal
- Lungs heal

EAT HEALTHY & LIMIT ALCOHOL

- Decreased risk of certain cancers, stroke and liver diseases

The Hughston Foundation, Inc. ©2021



Hughston Health Alert

The Hughston Foundation, Inc.
6262 Veterans Parkway P.O. Box 9517
Columbus, Georgia 31908-9517



NONPROFIT ORG
US POSTAGE
PAID
COLUMBUS GA
PERMIT NO 99

Did you benefit from this Free Hughston Health Alert? Your gift makes a difference to support this Award-Winning Patient Education Newsletter

Please send in your tax-deductible donation to
The Hughston Foundation, P.O. Box 9517, Columbus, GA 31908
or visit: <https://hughston.com/hughston-foundation/>

YOUR CONTRIBUTION SUPPORTS

- Hughston Foundation's mission of providing reliable medical information in digital and print versions of *The Hughston Health Alert*.
- Strengthening our community by supplying issues to the YMCA, fitness centers, the Girls Club, and Girls Inc.
- 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.

The *Hughston Health Alert* is a quarterly publication of the Hughston Foundation, Inc. The Foundation's mission is to help people of all ages attain the highest possible levels of musculoskeletal health, fitness, and athletic prowess. The content of the *Hughston Health Alert*, including text, graphics, images, and all other material considered "content," is published for educational purposes only. It is not intended to be a substitute for professional medical advice, diagnosis, or treatment. Always consult your physician or other qualified healthcare provider about any questions or concerns you may have regarding a medical condition. You should never delay seeking professional medical advice, disregard medical advice, or change or discontinue medical treatment based on information found in the *Hughston Health Alert* or on the Hughston website. Moreover, the *Hughston Health Alert* does not recommend or endorse any specific physicians, products, tests, procedures, or opinions mentioned therein. Reliance on any information published in the newsletter or appearing on the website is solely at your own risk.

Special written permission is required to reproduce, by any manner, in whole or in part, the material herein contained.

Send inquiries to Medical Writing, The Hughston Foundation, Inc.,
P.O. Box 9517, 6262 Veterans Parkway, Columbus GA 31908-9517 USA.

Copyright 2021, The Hughston Foundation, Inc.

ISSN# 1070-7778



Editor - Garland K. Gudger, Jr., MD

Managing Editor - Dennise Brogdon

Associate Editor - Devin Collins, DO

Art Director - Belinda J. Klein, MA

Editorial Board

Mark A. Baker, PT, CEO
William C. Etchison, MS
Andy J. Grubbs, Jr., MEd, ATC
Rob Hopkins, PT, SCS
William Kuerzi, PT; Cert. DN
Cholly P. Minton



4401 River Chase Drive
Phenix City, AL 36867
Phone: 334-732-3000
Fax: 334-732-3020



6262 Veterans Parkway
PO Box 9517
Columbus GA 31908-9517

Appointments:
706-324-6661
1-800-331-2910

