A WELLNESS GUIDE

Arthritis in the Military

For Active-Duty Service Members, Retired Military & Veterans

Arthritis Foundation®

Contents

Arthritis in the Military

Active-duty service members, retired military and veterans are the heroes of the nation who dutifully serve our country — training, fighting and sometimes making the ultimate sacrifice to protect the freedoms that we all enjoy as Americans. Your workdays can be grueling, beginning before dawn and stretching for hours past sundown. And the workload can literally be a heavy burden up mountainous terrains or across vast seas or through open skies.

No matter what branch or unit you served — as an active-duty service member, retired military or veteran of the U.S. Armed Forces — you may bear years of debilitating pain in your joints resulting from the demands of the job. The intense physical exercise, the lugging of rucksacks for miles and the daily grind of life as a military service member can trigger aches in the neck, back, knees, shoulders and other joints that worsen over time. These overuse injuries can have lasting consequences.

The Impact of Arthritis in the Military

Arthritis is a common job hazard in military service. Active-duty service members, retired military and veterans are diagnosed with arthritis at higher rates on average than the general U.S. population. Arthritis affects more than 1 in 3 veterans — 35% —and 1 in 4, or about 21%, of adults nationally, according to the Centers for Disease Control and Prevention (CDC). **Among those aged 18 to 44, arthritis prevalence in male**

veterans was twice that in nonveterans and 60% higher in female veterans as nonveterans.

Osteoarthritis (OA) — specifically post-traumatic osteoarthritis (PTOA), which occurs as a result of an injury to the joint — is the most common type of arthritis among military service members.

Inflammatory forms of arthritis come with their own challenges. In addition to joint pain and potential damage, diseases like rheumatoid arthritis (RA) are often accompanied by other conditions, such as cardiovascular disease, cancer and respiratory illnesses.

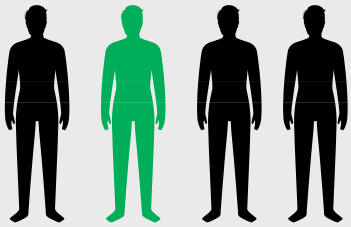
Why are so many active-duty service members living with the pain of arthritis? In some cases, getting service members to seek routine treatment for arthritis can be an uphill battle. Despite the national statistics on the prevalence of arthritis in the military, military service members often choose to live with the pain and extend careers of service as long as they can still serve.

And for veterans and those who retire from the military, becoming a civilian again also can create new barriers to care. The lack of proximity to a Veterans Affairs (VA) Hospital can obstruct or delay access to affordable doctors and pharmacies. Failure to get a correct diagnosis for chronic pain due to limited access to care because of stigma, bias or homelessness can also slow treatment.

What can be done to help you and your fellow active-duty service members, retired military and veterans living with arthritis enjoy a better quality of life? We will explore some of those strategies in the pages of this wellness guide.

ARTHRITIS AMONG VETERANS

1 in 3 VETERANS
HAVE ARTHRITIS



1 in 4 ADULTS
IN THE U.S. HAVE ARTHRITIS

Understanding Arthritis

The national average for active-duty service lasts two to six years, during which overuse and traumatic injuries can occur, especially for career service members who remain in service for 20 or more years. Recognizing the early signs of arthritis can be key to getting treatment that can increase your mobility into your retirement years.

The Centers for Disease Control and Prevention (CDC) estimates that nearly 1 in 4 (21%) adults in the U.S.— nearly 60 million people — have some form of arthritis. It is a leading cause of disability, with annual health care costs and lost earnings totaling $303.5 billion, and it is the most prevalent cause for medical discharge.

Arthritis is a chronic condition. It is not a disease that affects only elderly people, but also hundreds of thousands of children and young adults. Osteoarthritis can cause numbness, tingling and discomfort in the weight-bearing joints. The rigorous strength and conditioning exercises, running, and high-impact, physical challenges can result in overuse or traumatic joint injuries that often develop into arthritis. As it progresses, it can cause joint erosion, pain, stiffness and deformity.

Types of Arthritis

The most common forms of arthritis found in active-duty service members, retired military and veterans are osteoarthritis (OA), spondylosis (OA of the spine) and rheumatoid arthritis (RA). If you are experiencing joint pain, or if you know someone who is, seek a medical diagnosis or encourage your loved one to make a doctor's appointment with the VA Hospital so that a care plan can be developed.

Some of the more common forms of arthritis and related conditions include the following:

OSTEOARTHRITIS: By far the most common form of arthritis, affecting more than 32 million Americans, osteoarthritis is also the most common form of arthritis among active-duty service members, retired military and veterans. Prior trauma — known as PTOA — repetitive motions, aging, obesity and a taxing physical activity level can contribute to its development. Traditionally, OA was known as a "wear and tear" disease, but we now know that it affects all joint tissues, not just cartilage, and inflammation is a driver of the damage. It can affect any joint, causing debilitating pain, stiffness and reduced range of motion.

SPONDYLOSIS: This common type of arthritis occurs when discs and joints degenerate and/or bone spurs grow on the vertebrae. This often occurs also due to wear and tear specifically on the spine. The condition can worsen with age, affect the nerves and can cause pain, numbness, tingling and stiffness in all parts of the spine.

RHEUMATOID ARTHRITIS: In rheumatoid arthritis (RA), the most common form of inflammatory, autoimmune arthritis, the prime target of inflammation is the synovium, the tissue that lines the inside of joints. Uncontrolled inflammation causes pain, swelling and stiffness in joints and can lead to permanent damage if left untreated. Joints in the hands, wrists and knees are mostly commonly affected — often occurring in the same joint on both sides of the body (both wrists or both knees, for example). The chronic, body-wide inflammation also can cause severe fatigue and raises the risks for heart, lung and other diseases.

PSORIATIC ARTHRITIS: Also an inflammatory, autoimmune disease, psoriatic arthritis (PsA) usually occurs

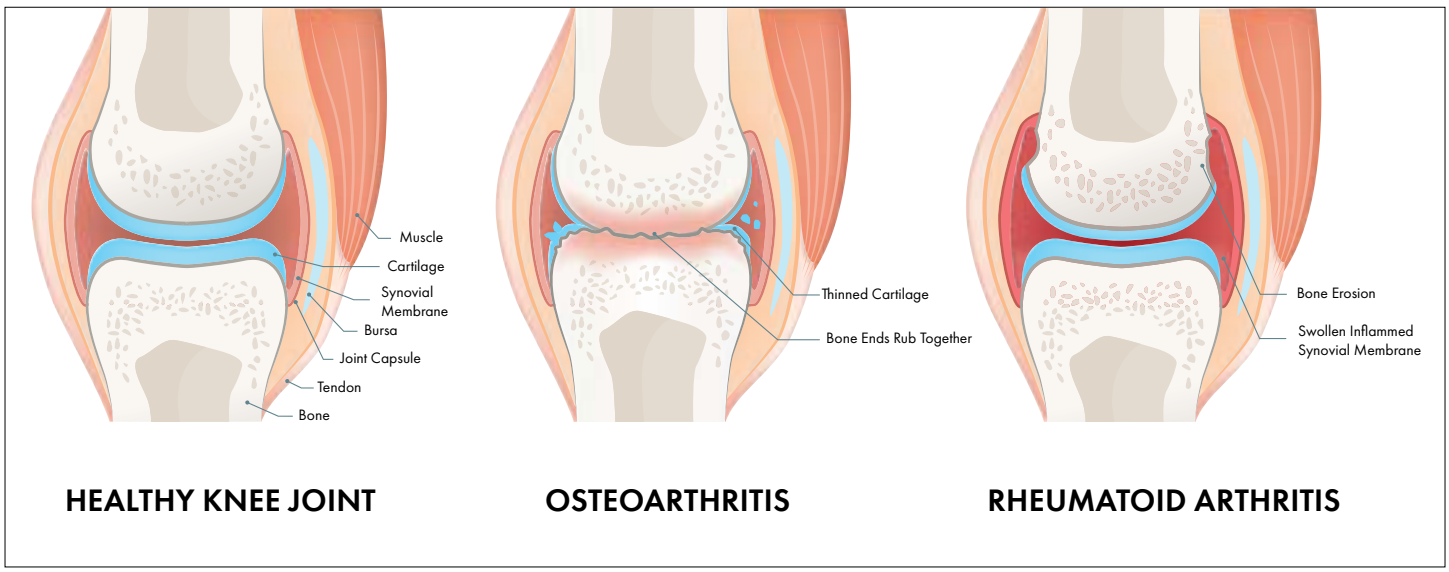
with the autoimmune skin disease psoriasis. Psoriasis often precedes the onset of joint symptoms. Genetic factors may predispose someone to developing PsA, although scientists believe environmental factors may trigger its onset. It can also affect eyes and other organs.

AXIAL SPONDYLOARTHRITIS: Also known as ankylosing spondylitis or nonradiographic axial spondylitis (axSpA), this inflammatory, autoimmune form of arthritis affects the spine, causing pain in the lower back and sacroiliac joints (where the spine connects to the pelvis). Symptoms may begin in the teen and young adult years. Over time, joints in the spine and ribs may fuse, restricting movement and sometimes lung capacity. Vision problems also may occur with axSpA.

GOUT: Genetics play a role in gout, the most common form of inflammatory (not autoimmune) arthritis. It often occurs with high uric acid levels in the blood, which form crystals that lodge in joints, causing excruciating pain. It often strikes first in the big toe. Uric acid results from the breakdown of purines, which are naturally present in the body as well as in many foods. Eating high-purine foods may trigger gout, which often occurs with other diseases, like diabetes. With medication and lifestyle modifications, gout can be controlled and flares minimized.

Inflammatory, autoimmune types of arthritis, left unchecked, can affect the skin, eyes, lungs, heart and other parts of the body. Seeing a doctor is imperative because arthritis is often accompanied by serious underlying conditions, such as high blood pressure, diabetes, heart disease and cancer, which also require medical care.

Depending on the type of arthritis, getting a correct diagnosis may require a physical exam; X-ray, ultrasound or other imaging such as MRI; as well as blood tests and synovial fluid (joint fluid) tests. There is no cure, but arthritis often can be managed so pain and flares are greatly reduced. The goals of treatment are to reduce symptoms, retain mobility and quality of life, and reduce damage to joints and other tissues.



MY STORY

Allan Silberstein: Battling Arthritis Takes Teamwork

At age 68, Allan Silberstein lives with migraines and joint aches. He is 100% disabled after serving active duty for 26 years in the U.S. Army. Parts of his back and neck have fused. He can no longer work, ride his motorcycle or go for long walks with his wife, Angie LaRosa. Yet he refuses to let his pain defeat him.

"My philosophy is, 'What you permit, you promote,'" Silberstein says. "If you don't permit pain as a debilitating part of your life, then you promote the attitude that pain is not going to stop you."

When pain and a migraine overwhelm, Silberstein — diagnosed with both OA and RA — shuts off the lights, takes a pain reliever and rests until he feels better. He's had neck surgery, two knee replacements and three hip replacements.

Silberstein finds comfort in the camaraderie of a tactical unit. "I have a unit of different doctors — a neurologist, a rheumatologist, an endocrinologist, a pain specialist and a general practitioner who helps you to drive the train and coordinate care with an open mind and open ears."

Silberstein traces the root of his pain to his 20s, when he enlisted in the Army in 1975. In his first 10 years, lugging 100-pound rucksacks and doing push-ups came with ease. But by his mid-30s and early 40s, the same load seemed heavier and his body less forgiving.

Silberstein served as an Army medic while pursuing his master's degree. After working as an education specialist, he retired as a sergeant first-class in 2001, then he moved into civil service in 2006 for another decade.

He shares his arthritis journey with others facing a similar walk. He volunteered to co-facilitate the **Arthritis Foundation's Live Yes! Connect Group** for past and present members of the U.S. Armed Forces. "Unless you have served, how do you know what others are going through."

Read Silberstein's full story at **arthritis.org/news/stories-of-yes**.

Your Arthritis Health Care Team

Getting an arthritis diagnosis is only the beginning of your fight to maintain your mobility and improve your quality of life.

Your next marching orders: Place yourself at the center of care by building a tactical team to shadow you through the stages of your joint disease — a support network to treat your mind, body and soul. You will need experts on your side.

The following are some of the professionals that you should consider adding to your team, depending on your needs as your arthritis progresses:

Primary Care Physician. These physicians provide first contact and continuing medical care, including the diagnosis and treatment of acute and chronic illnesses, health promotion, disease prevention, health maintenance, counseling and patient education. Primary care activities are performed and managed in collaboration with other health care professionals. Be sure you feel heard, seen and valued by your primary care physician. If you have doubts, find someone new.

Rheumatologist. Especially if you have an inflammatory form of arthritis, you'll need a rheumatologist. These are physicians who specialize in diagnosing and treating arthritis and other diseases of the joints, muscles and bones. The diseases they treat include rheumatoid arthritis, lupus, fibromyalgia, gout and other musculoskeletal disorders.

Orthopedic Surgeon. If your arthritis pain becomes debilitating, it might be time to discuss your options with an orthopedic surgeon. They use both surgical and nonsurgical means to treat bone and joint trauma, sports injuries, arthritis, infections, tumors and congenital disorders. Some specialize in specific joint areas (shoulder, hip, knee) and in certain types of surgery (joint replacement, or arthroscopy).

Dermatologist. Dermatologists deal with diseases of the skin, hair and nails. If you have psoriatic arthritis, you are likely already receiving treatment for your psoriasis from a dermatologist.

Occupational Therapist. Occupational therapists promote health by enabling people to perform meaningful and purposeful activities. They employ exercises and devices to help people maintain fine motor control and activities of daily living.

Physical Therapist. These health care professionals focus on the management of impairments and disabilities through the promotion of mobility, functional ability and quality of life. Their care activities include evaluation, diagnosis and physical interventions including therapeutic exercise and modifying movements.

Ophthalmologist. Ophthalmology is a branch of medicine that diagnoses and treats disorders of the eye. People with inflammatory forms of arthritis need to see an ophthalmologist regularly to check for signs of uveitis and other arthritis-related eye diseases.

Neurologist. A neurologist is a doctor who specializes in diagnosing, treating and managing disorders of the brain and nervous system, which includes the brain, spinal cord and nerves.

Pain Specialist. Pain specialists use an interdisciplinary approach to diagnosing and managing acute and chronic pain. The typical pain management team includes medical practitioners (anesthesiologists, neurologists and neurosurgeons), clinical psychologists, physical therapists, occupational therapists and nurse practitioners.

Psychologist/Therapist/Counselor. These mental health specialists can monitor and help maintain your mental and emotional health through the difficult journey with arthritis and chronic pain. These specialists do not prescribe medications.

Physiatrist. A physiatrist (a rehabilitation medicine specialist) is a physician who focuses on functional abilities and quality of life in those with physical impairments or disabilities. Physiatrists specialize in restoring optimal function to people with injuries to the muscles, bones, tissues and the nervous system.

Physician Assistant (PA). Physician assistants are health care professionals who can provide services traditionally performed by physicians. They conduct physical exams, diagnose and treat illnesses, order and interpret tests, counsel on preventive health care, assist in surgery and write prescriptions.

Podiatrist. Podiatrists diagnose and treat disorders of the foot, ankle and lower leg, including arthritis and related conditions. Podiatric physicians can specialize in different areas, including surgery, sports medicine, biomechanics, geriatrics, pediatrics, internal medicine, diabetes, orthopedics or primary care.

Registered Dietitian. Registered dietitians promote the understanding of the effects of nutrition and the impact of food on health and well-being, including diet, food preparation and nutritional counseling. Some nutritionists provide similar services but are not required to have the same level of advanced training and education.

You may also be referred to other specialists if you experience additional symptoms or complications. Be sure to take a list of your questions to your medical appointments and consider asking a family member or friend to accompany you to help take notes, ask questions and process what the health care provider explains.

Stigma & Legacy of Injustice Create Barriers to Care for Some Communities

As an active-duty service member, retired military or veteran, you are often lauded for your leadership, mental and physical strength and heroism. That role may make you reluctant to seek help when you need medical care, especially for aching joints. Nagging knee, shoulder or back pain can seem like trivial discomforts when you've seen comrades killed in the line of duty or sent home with an amputation or other traumatic injury.

If your arthritis pain is accompanied by depression or anger issues, you may be even less likely to seek medical attention. The stigma of a mental health diagnosis keeps some 60% of military personnel suffering with emotional problems from accessing support, according to the National Institutes of Health. Sexual orientation, gender identity and race can also play a role in whether an active-duty service member, retired military or veteran seeks routine treatment for pain or sickness.

How Gender, Race & Sexual Orientation Impact Access to Care

Going to a doctor for pain may be seen as a sign of weakness for active-duty service women trying to prove their mental and physical toughness.

Krendra Harralson of Texas was 31 when she began to suffer intense migraines and tingling in the muscles behind her shoulder blades. She went to her Army doctor at first but stopped so she wouldn't be perceived as unfit for duty.

"They told me that being in the military, neck, back and knee pain is something that everybody suffers from," Harralson recalls. "They prescribed me some muscle relaxers and inflammatory medication, and it was like, 'Take the medicine as needed, step it up and drive.' I continued to have pain but stopped going back to the doctor until I was 36."

A legacy of discrimination in health care has also created a barrier to access for Black service members and the LGBTQIA+ community. Historically, service members and civilians have been subject to racism and bias in medical care.

Arthritis, especially inflammatory forms, can only be diagnosed by a doctor through lab tests, imaging and by

exploring family history. Building trust with a medical physician is the first step toward relieving arthritis pain. But that trust must be built on mutual respect.

"One of the really important things in treating arthritis is for people to feel comfortable with their medical care provider," says Ashira Blazer, MD, a rheumatologist at the Hospital for Special Surgery in New York City. "If you don't go to the doctor and you have a form of arthritis that can be helped with physical therapy, medication and lifestyle changes, you don't get the help you need. Lots of arthritis tends to damage the joints over time. Early detection and early treatment are key to making sure patients live healthy lifestyles for as long as possible."

Finding the right doctor who will validate you as a person and your concerns, and who will commit to helping ease your suffering, can be just as important as getting treated, adds Dr. Blazer. You must find a doctor who will explore the root of your pain and believe you when you say you are hurting. Sometimes, bringing family or friends as reinforcements, who bear witness to your challenges, can be necessary to help get a proper diagnosis.

Challenges of Veteran Homelessness on Arthritis Care

Survival can take priority over pain. Housing instability and food insecurity for veterans of all races can make arthritis pain seem trivial. A trip to the doctor is a luxury for vets with no transportation, food or housing.

The economic challenges of veterans can present acute barriers to adequate care for their arthritis. While only 7% of the U.S. population has served in the military, 13% of the homeless adult population are veterans. And more than half of homeless veterans have disabilities, according to research from the National Coalition of Homeless Veterans.

The nation's homeless population overall has worse health outcomes than the housed and insured. If you are a veteran at risk of becoming homeless, share that information with your medical care team.

A patient's emotional well-being, ability to buy healthy foods and medication, and access to safe areas for exercise play a role in their ability to live well with arthritis, says Dr. Blazer. "Mental health and stress can affect outcomes," Dr. Blazer adds. "We have to be sure as doctors that we are looking at all areas for people to have the best outcomes."

For homeless veterans, however, seeing a doctor regularly, accessing healthy foods and necessary medications — or even just applying heat and cold to aching joints — may not be possible.

If you or someone you know is a veteran who is experiencing homelessness, contact:

National Call Center for Homeless Veterans at 1-877-4AID-VET (1-877-424-3838). The 24-hour hotline has a staff that can connect veterans and others with VA and non-VA services.

Supportive Services for Veteran Families, a homeless prevention program funded by the VA that aids those with housing insecurity. The rehousing outreach is operated by community-based agencies.

MY STORY

VA Doc's Arthritis Treatment Includes Honor & Respect

Kimberly Fountain, MD, Chief Medical Officer, Atlanta VA Medical Center, serves on the front lines of the comprehensive care team that treats the men and women who have served all Americans.

A graduate of the University of Utah School of Medicine, Dr. Fountain says she was called to the mission. Her father served in the U.S. Navy during the Vietnam War, and she is driven to treat her patients with the respect she had for him.

"I hear so many stories. Many veterans who come to see me have told me, repeatedly, that their visits to the VA Hospital may not have always been pleasant," says Dr. Fountain, who has been practicing medicine since 2009. "I try to alleviate their frustration by acknowledging what they have been through and telling them that I am committed to their care and will be there to help them to navigate the system and get what they need."

One of the most common complaints from the veterans she sees is joint pain. Dr. Fountain has diagnosed veterans as young as 20 with OA caused by overuse or injuries, and others with RA.

Dr. Fountain recommends a comprehensive treatment plan, prescribing oral medication, physical therapy and mental health counseling, as well as encouraging stretching and exercise. She also watches for signs of other serious illnesses. She knows that people who ignore their inflammatory arthritis symptoms over time may also develop heart, lung, digestive tract and kidney damage, among other complications.

For some patients, Dr. Fountain has become a lifeline. She was recently hailed as a hero for saving the life of a vet and regularly connects veterans to a network of support. She refers them to the Arthritis Foundation for community ties and information and pairs them with programs where they can meet other veterans facing similar circumstances.

Read Dr. Fountain's full story at arthritis.org/stories-of-yes.

Getting a Diagnosis

If you are experiencing joint pain as an active-duty service member in the U.S. Armed Forces, see a military doctor. You can work with your doctor to find solutions that work best for you so you can continue to serve. For example, you may need a knee brace, foot orthoses (orthotics) or other assistive device, or even modified duty.

In some cases, a medical discharge may be an option. An active-duty service member must complete an application process and complete medical tests to determine their disability ratings before an arthritis-related discharge is granted. Service members can also apply for arthritis-related disability ratings after they have been discharged or they have retired from the military.

Here are some steps to help you access the medical care and financial report that you will need to seek a medical discharge or related benefits for your pain:

1 **Get an X-ray to determine the cause of your pain.** Medical imaging is key to diagnosing OA and qualifying for a medical discharge. People with OA and similar musculoskeletal disorders receive an average of about $1,400 per month from Social Security as of 2023. The monthly benefit for a veteran with no dependent and a 100% disability rating was about $3,700 per month.

2 **Seek a disability rating from your medical care team.** Under diagnostic code 5003, the VA rates disabilities from zero to 100% for total, incapacitating impairment. For example, degenerative arthritis is rated at 10% to 20% if two or more major joints or two or more minor groups of joints are affected. The VA defines major joints as the shoulders, elbows, wrists, hips, knees and ankles. Minor joint groups are those in the hands and feet, as well as joints in the lower back (lumbar spine), upper back (thoracic spine) and neck (cervical spine).

The VA rates degenerative arthritis based on limitation of motion. If your arthritis pain develops to a degree that leaves you at least 10% disabled within one year of discharge, Presumptive Service Connection will also be applied, meaning the VA presumes the disability is related to service and may qualify you for some disability benefits.

3 **Have your support network document your pain.** The VA requires that swelling and evidence of arthritis pain limiting movement be documented. That documentation can be provided by a physician and other witnesses. Friends or family members who have seen the effects that arthritis has on your daily functioning as an active-duty service member, retired military or veteran can write lay statements to support a VA claim or appeal. These should include details about joint pain symptoms, such as visible swelling, muscle spasms or cracking joints, as well as how these symptoms impact your ability to function every day.

4 **Determine whether your pain prevents you from working.** Arthritis pain in the hands, arms, and weight-bearing joints in the hips, back and legs, can make it difficult to perform daily tasks, walk, sit up straight or work. Sometimes, the arthritis pain is so severe that physically demanding jobs that require standing and lifting are impossible for a patient to do. Sedentary jobs that require sitting for hours or repetitive motions, like typing on a computer, can be excruciating. Retired military may be eligible for a total disability rating if pain prevents you from working. That rating may be based on OA alone or OA combined with other disorders, such as depression or insomnia related to arthritis pain, which can make it difficult to keep a job. Some level of disability may also apply for other types of arthritis, including rheumatoid arthritis, depending on the severity of disease and joints affected. Work with your care team and seek legal advice if your disability rating does not reflect your impairment and ability to work.

Common Treatments for Arthritis

TOPICALS

Topicals (primarily used to treat osteoarthritis and spondylosis) containing nonsteroidal anti-inflammatory drugs (NSAIDs), such as diclofenac, are available by prescription in liquid form (*Pennsaid*) and patches (*Flector*). It is also available over the counter, without a prescription, as a gel (*Voltaren Arthritis Pain*).

Studies show these medications can relieve knee pain just as well as pain pills in many cases, and with fewer side effects.

Other over-the-counter arthritis creams and patches contain ingredients that numb, such as capsaicin, camphor, menthol or lidocaine. They can be used for as long as needed.

Topicals may also help ease joint pain from other forms of arthritis, in conjunction with medications that treat the disease process itself.

PILLS

Nonsteroidal Anti-Inflammatory Drugs

NSAIDs are the most effective oral medicines for osteoarthritis and are often used for symptom relief in other types of arthritis (spondylosis, rheumatoid arthritis and psoriatic arthritis). They include ibuprofen (*Motrin, Advil*) naproxen (*Aleve*) and diclofenac (*Voltaren*, others). These help ease pain and swelling, but they also can interfere with the ability of blood to clot and they can damage the lining of your stomach, leading to bruising, ulcers and possible intestinal bleeding.

NSAIDs also increase your chance of heart attack, stroke and heart failure. The risk increases the longer you use them and the more you take, so you should minimize the dose and frequency of NSAIDs.

Celecoxib (*Celebrex*) is an NSAID that's less likely to cause gastrointestinal bleeding, but it can cause heart problems.

You and your doctor should weigh the benefits and risks of NSAIDs.

Acetaminophen

For years, doctors recommended acetaminophen (*Tylenol*) for many types of arthritis (osteoarthritis, spondylosis, rheumatoid arthritis). But recent studies suggest that it does little for arthritis pain. The American College of Rheumatology (ACR) and Arthritis Foundation treatment guidelines released in 2020 don't recommend it unless you can't use NSAIDs, but it may help arthritis pain in some people. Acetaminophen can harm your liver, so never take more than prescribed and only use it as needed.

Disease-Modifying Antirheumatic Drugs (DMARDs)

DMARDs stop or slow the disease process in inflammatory forms of arthritis (rheumatoid arthritis, psoriatic arthritis). They help preserve joints by blocking inflammation. Without DMARDs, inflammation would slowly destroy joint tissue.

Each DMARD works differently. Conventional DMARDs (methotrexate, *Plaquenil, Azulfidine, Arava*, etc.) restrict your immune system broadly. Targeted DMARDs (also known as Janus kinase inhibitors, or JAK inhibitors; *Xeljanz, Rinvoq*, etc.) block precise pathways inside immune cells. Biologic DMARDs (see "Injections" below) are produced by living cells and work on individual immune proteins called cytokines.

Common Treatments for Arthritis

INJECTIONS

Injections directly into the joint are another option for osteoarthritis pain.

Corticosteroids

Injections of corticosteroids (steroids) reduce inflammation and pain from a few days to a few months. But side effects can occur, and you can only get the shots three or four times a year. After the first shot, the others may not work as quickly or as well.

Hyaluronic Acid (HA)

This acts like the fluid that lubricates your joints. While research is mixed on whether HA shots really help, experts say they rarely cause harm. Pain relief may last up to six months for the knee or shoulder.

ACR and Arthritis Foundation guidelines do not recommend HA injections because proof that they work is limited. However, it should be up to you and your doctor to discuss and decide.

Platelet-Rich Plasma (PRP) and Stem Cell Treatments

These treatments have become popular in recent years but are not proven or FDA-approved. PRP is a concentrated form of your own blood. It contains nutrients that, in theory, may enhance healing. The idea behind stem cell treatments is that these specialized cells, which can make copies of themselves, will initiate cartilage regeneration. However, there is a lot of variability in the cells as well as the procedures. The ACR and Arthritis Foundation guidelines recommend against both treatments. The procedures are not well standardized, and their effectiveness is not yet proven.

Prolotherapy

This is an older treatment in which a sugar solution is injected into joints. Its usefulness is doubtful, and the ACR and Arthritis Foundation guidelines do not recommend it.

Biologics and Biosimilars

Both biologics and biosimilars are large molecules produced in living cells used to block specific parts of the immune system, such as proteins that promote inflammation, like TNF or B or T cells. Both are DMARDs that can help slow or stop the progression of inflammatory arthritis (rheumatoid arthritis, psoriatic arthritis, ankylosing spondylitis). But unlike conventional DMARDs, biologics and biosimilars are injected or given by IV infusion.

Biosimilars (*Amjevita, Cyltezo, Hadlima, Yusimry*, etc.) are close copies of original, or "reference," biologics (*Humira, Rituxan, Actemra, Orencia*, etc.) and are shown to be just as effective.

Weight Matters

A healthy weight comes in many sizes, but carrying excess weight wears down joints and drives inflammation in the body that fuels arthritis as well as other diseases. You may not feel the effects of excess weight when you're younger, but over time it can lead to serious problems.

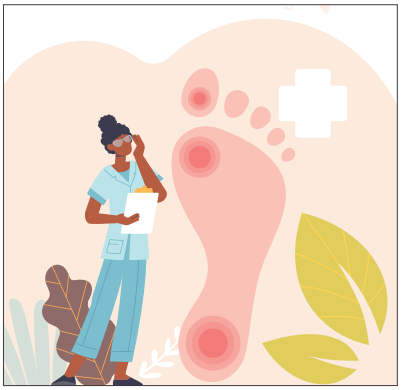
Reduce pressure on your joints.

A key study published in *Arthritis & Rheumatism* of overweight and obese adults with knee osteoarthritis (OA) found that losing one pound of weight resulted in four pounds of pressure being removed from the knees.

Losing weight can reduce the overall severity of your arthritis. A 2018 study published in *International Journal of Clinical Rheumatology* reviewed the records of 171 rheumatoid arthritis (RA) patients and found that overweight or obese people who lost at least 5 kg (10.2 pounds) were three times as likely to have improved disease activity compared to those who did not lose weight.

Ease pain.

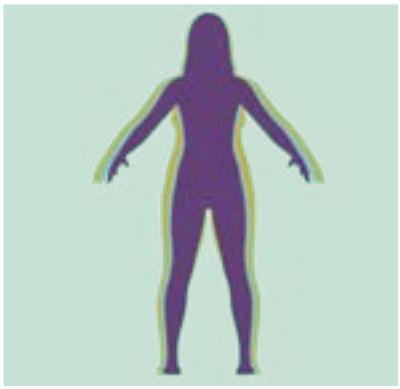
Multiple studies show that losing weight results in arthritis pain relief. A 2018 study published in *Arthritis Care and Research* went further to find that losing more weight — to an extent — results in more pain relief. The study of overweight and obese older adults with pain from knee OA found that greater weight loss resulted in better outcomes than losing a smaller amount of weight. Losing 10% to 20% of one's bodyweight improved pain, function and quality of life more effectively than losing just 5% of bodyweight.



Lower uric acid levels and chance of gout attack.

A 2017 analysis of 10 studies, published in *Annals of Rheumatic Diseases*, found that weight loss was beneficial for obese or overweight people with gout. Overall, people who lost weight had lower serum uric acid levels and fewer gout attacks.

Weight Matters



Reduce inflammation.

Fat itself is an active tissue that creates and releases pro-inflammatory chemicals. By reducing fat stores in the body, your body's overall inflammation will go down. A 2018 article published in *Autoimmunity Reviews* explained that obesity can activate and sustain body-wide, low-grade inflammation. This inflammation can amplify and aggravate autoimmune disorders, such as rheumatoid arthritis, psoriatic arthritis, lupus and diseases that often accompany them, known as "comorbidities," such as heart disease.

Slow Cartilage Degeneration in OA.

A 2017 study published in *Radiology* assessed magnetic resonance images (MRIs) of osteoarthritic knees in 640 overweight or obese people. Participants who lost weight over four years showed significantly lower cartilage deterioration. The more weight lost, the lower the rate of disease progression.

Improve Chance of Remission.

Several studies have shown that being obese reduces your chance of achieving minimal disease activity or remission if you have RA or PsA. A 2017 review article published in *Arthritis Care and Research* analyzed data from more than 3,000 people with RA and found that obese patients had lower odds of achieving and sustaining remission compared with non-obese people. A 2018 article in *Joint, Bone, Spine* analyzed several studies totaling more than 3,800 patient records. The authors found that obesity "hampered the effects of anti-TNF agents" and showed that the odds of reaching a good response or achieving remission were lower in obese than non-obese patients taking anti-TNF biologics.

What Could Surgery Mean for Your Life?

Kimberly Fountain, MD, knows that diagnosing chronic joint pain as arthritis is just the beginning of the journey toward a better lifestyle for her patients. For those with severely diseased joints that cause severe pain, stiffness and disability, surgery is recommended.

"A lot of times patients want a magic pill. I tell patients there is no cure for arthritis, but we do have modalities to treat it. We want you to be as mobile as you can. We can prescribe medicine to relieve symptoms, and if you are a candidate for surgery, we will consider that," Dr. Fountain says.

Hip and knee replacements are among the most common surgeries in the U.S., and more than 7 million people in the U.S. today live with hip and knee implants. Fear of surgery and a lack of information about how the procedures are paid for are some of the reasons that patients are reluctant to allow a surgeon to replace their joints. Black patients are 30% less likely than white patients to have joint replacement surgery to ease their pain.

Surgery is recommended when medication and rest no longer alleviate pain, inflammation and swelling, and there are no other options for maintaining an active lifestyle.

The VA covers the costs associated with hip and knee replacements recommended to relieve injuries and arthritis connected to military service. Both the surgery and recovery time can add to an active-duty service member's, retired military's or veteran's disability rating, increasing benefit payments.

Before you or a loved one rules out surgery due to affordability and proximity to a VA Hospital, contact the VA for information on benefits available to you as an arthritis patient, or consult an attorney to help get access to the disability rating and compensation that you will require to sustain you should surgery be your best option for your arthritis.

YOUR VOICE

Allan Silberstein of Georgia is no stranger to arthritis surgeries. At age 68, the Army veteran has already had two knee replacements, three hip replacements and a recent procedure to relieve some of the pressure from the fused joints in his neck. The pain gives him intense migraines. And that is on top of the aching joints he has from serving for 26 years in the Army. "I have arthritis in my knees, my hips, my shoulders, my neck and my back — it's everywhere. The pain doesn't stop," he says. "I have three neurostimulators."

Yet, he is thankful for each day. And hopeful that his most recent surgery will improve his quality of life even more. "Structurally, I'm a mess. People say, 'Allan, why don't you walk with a cane?'" he says. "I tell them, 'I have one — my wife.'"

MY STORY

Krendra Harralson: Driven by Purpose & Honor

Krendra Harralson of San Antonio, Texas, weighed less than 100 pounds most of her life, but that didn't stop her from going into the family business. Just like her grandfather and her father, as well as her stepfather, aunts, uncles and cousins, she lived for a life of military service.

But arthritis pain interrupted her ascension in the Army, throwing her for a loop after 21 years of service.

Harralson committed early to a regimented schedule of hard work and fitness. A top track and basketball athlete and JROTC cadet in high school, she felt she was the perfect candidate for the Army National Guard. Her recruiters helped her to bulk up to meet the weight requirements. "I was so skinny, I was almost invisible. I weighed 89 pounds," she recalls.

"As I advanced in rank in different units as a ground ambulance and air ambulance (supporter) in my 30s, I was maybe 110 pounds," she says. But her gear had doubled in weight and was easily 100 pounds.

Harralson began to feel the wear and tear on her knees in her 20s. She was 26 when she had her first knee surgery, and 31 when she had the second. She qualified for modified duty that allowed her to sit or rest when necessary. By age 38, she was diagnosed with degenerative disc disorder and fibromyalgia and knew it was time to retire.

"It was challenging to leave the military," Harralson says. "I didn't see myself as seriously broken. I saw myself as untreated. I was blaming military medicine for not understanding my condition."

Harralson received a medical discharge and went into a deep depression. As a wife and a mother of three sons, "Something hurt every day," Harralson says. It took her family's help to reach her when medicine alone wasn't enough.

Eventually, Harralson went back to school to earn her Bachelor of Science degree in medical technology. She attended St. Mary's School of Law to study health care compliance law. She credits her husband, Phillip, for urging her to try something new.

To read Harralson's full story, visit arthritis.org/news/stories-of-yes.

Living With Arthritis

An arthritis diagnosis can be the motivator for a lifestyle change for patients. One of the most important wellness decisions that someone with arthritis can make is a commitment to eating healthfully.

Making smart food choices and becoming or staying physically active are essential to losing weight, relieving pressure on joints and retaining mobility and range of motion.

Eating fruits, vegetables, lean proteins and low-fat dairy, and avoiding red meat, sugars and processed foods, can alleviate inflammation.

But change is not easy. Especially if you think you must sacrifice flavor and abandon the food you were raised on. Cultural cuisines — meat tacos, quesadillas, lasagna, veal parmesan, pizza, macaroni and cheese, fried chicken, fried pork chops, ham and more — may be delicious, but they are often high in sodium and unhealthy fats and may not be good selections for people with arthritis. Those foods, as well as soda and alcohol, cause inflammation.

There are popular diet plans, however, that provide a healthy new twist on comfort foods, making them more palatable for those with arthritis.

COOKING WITH CARE

The Veterans Affairs Nutrition and Food Services offers recipes, videos and cookbooks with a variety of options, from simple, everyday recipes to international or plant-based dishes.

Download this e-book for anti-inflammatory recipes from the Cleveland Clinic. Many other anti-inflammatory and arthritis-friendly recipe books are available from retail outlets.

What Is the Mediterranean Diet?

This diet emphasizes whole foods, including fruits and vegetables, healthy fats such as olive oil and nuts, whole grains, fatty fish such as salmon and trout, as well as yogurt and — in moderation — red wine. It's based on the way people in Mediterranean areas have eaten for centuries, and it's credited for their long lives and low rates of diabetes, obesity, heart disease and dementia.

Reducing Inflammation: The disease-fighting power of the Mediterranean diet stems from its ability to regulate inflammation by emphasizing anti-inflammatory foods (berries, fish, olive oil) and excluding or limiting pro-inflammatory foods (red meat, sugar and highly processed foods).

Get Moving Again

If you're a veteran or retired military and are not as active as you used to be, stretching, strengthening and getting a cardiovascular workout are keys to managing your arthritis. Get outside and get moving again.

Some workplaces encourage employees to adopt healthy lifestyles and provide programs that enable them to get fit at work. Those with arthritis shouldn't sit on the sidelines. The Arthritis Foundation partners with employers to provide resources, such as **Arthritis@Work** — a free program that offers turnkey tools and resources to support employees with arthritis — and its Walk with Ease in the Worksite Program — a low-cost, six-week walking campaign. Both programs can easily be integrated into an employer's wellness program or be used to launch wellness conversations.

Use the skills you learned in the military to keep moving to ease pain:

1. Get some physical activity at least three times each week and be sure to stretch. Walking the stairs in your home or the halls in the office isn't enough exercise. Focused exercise that allows you to isolate each muscle group is best. People with arthritis pain should get exercise guidance from a physical therapist to minimize risk of further damage. Low-impact movements, like walking, cycling, tai chi and yoga are good exercise choices that limit pain.

2. Include strength training in your exercise plan. In addition to cardio, build your strength. Start slowly if you're out of practice. You can use your body weight as resistance, and later add resistance bands to build more strength. As you progress, you can add light weights to push your flexibility and fitness to the next level, but don't overdo it.

3. Monitor your joint health. If you are unable to complete a full muscle extension, your range of motion is limited and could impact your joints. Check with your doctor or physical therapist to determine where you may have muscle atrophy and weakness so that you can work to rebuild your strength in problem areas.

4. Find an exercise buddy. When it comes to exercising, eating right and living with arthritis pain, support from people who understand your journey can improve your quality of life. Reach out to the Arthritis Foundation's **Live Yes! Connect Groups** to find a network of support from fellow active-duty service members, retired military and veterans. The outreach is also a source for research on the needs of veterans living with arthritis.

What Else Can You Do to Take Control of Your Arthritis?

A GOOD NIGHT'S SLEEP

As many as 80% of people with arthritis have trouble sleeping. With achy, stiff and sometimes swollen joints, getting comfortable, dozing off and staying asleep can be a tall order.

Yet getting **restful sleep** is vital to protecting your health and managing arthritis. Research finds that poor sleep can make your joint pain worse, and even increase the likelihood that you may become disabled or depressed.

"Patients often attribute sleep problems to pain," says Yvonne Lee, MD, a rheumatologist at Northwestern Medicine in Chicago. "While pain can certainly contribute to sleep problems, the more we learn about sleep, pain and inflammation, the more we find the relationships are likely to be multidirectional."

People with arthritis should strive to get eight to nine hours of sleep each night so that their immune system works optimally, and they can recover from any new injuries.

COMPLEMENTARY REMEDIES

Herbal remedies have been used to treat disease since the origins of medicine. Arthritis is no exception. Curcumin or turmeric, ginger, Boswellia serrata, cat's claw, avocado-soybean unsaponifiables (ASU) and **CBD** all have some evidence of benefits for arthritis.

However, herbal and vitamin supplements in the U.S. are not well regulated, so you may not be getting what you think unless you buy a reputable brand. With supplements or other complementary therapies, such as acupuncture or massage, consult with your doctor to make sure it does not interact with your other treatments or medications.

Once you get medical clearance from your doctor, you might want to try some of these:

- Acupuncture
- Touch therapy, including massage
- Herbal and vitamin supplements
- Infusions and teas
- Hot and cold therapy
- Dry needling
- Aquatic therapy
- Essential oils

Know Your Benefits

Knowing and understanding your benefits is key to getting the care you need. Your military status will ultimately determine how your benefits are applied.

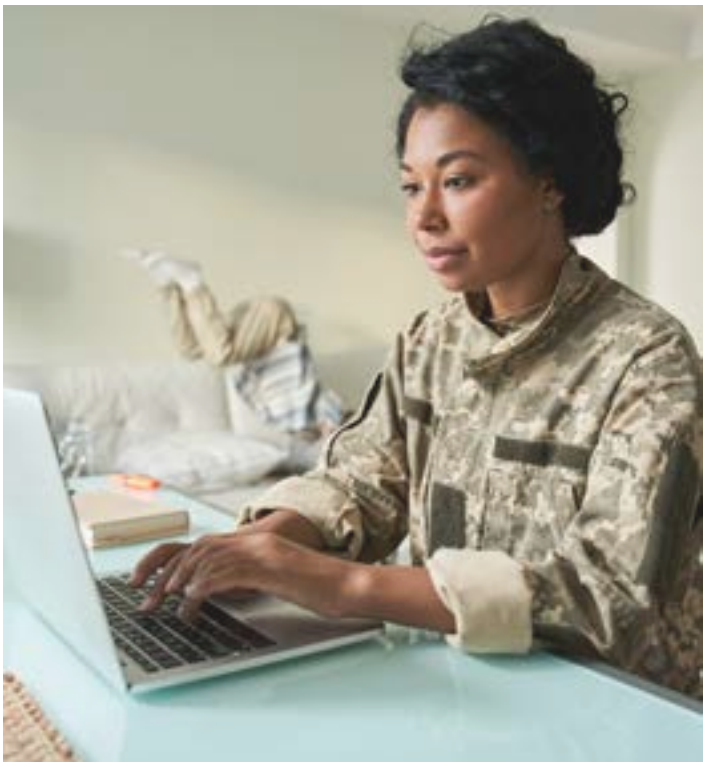
For active-duty service members, National Guard and Reserve members, retired military and the survivors and families of all, TRICARE is the go-to health care program. TRICARE is managed by the U.S. Department of Defense (DoD) Military Health System and provides care from both DoD military hospitals and clinics, as well as a civilian network of TRICARE-authorized providers. Your benefits will depend on which TRICARE plan you qualify for.

Veterans and service members who have recently been separated from active duty or have been medically retired can get health care through the U.S. Department of Veterans Affairs (VA). When you apply for compensation through the VA, the VA reviews your claim and assigns a disability percentage rating in 10% increments. For example, if you have a service-related knee injury, the VA will first determine the severity of your injury and then rate your injury between 10% and 100% based on how it impacts your life. Your rating percentage determines your compensation. Some veterans may be entitled to more disability pay if certain conditions apply, including severe disabilities, loss of a limb, dependents or a spouse with disabilities.

The Sergeant First Class (SFC) Heath Robinson Honoring our Promise to Address Comprehensive Toxics Act, or PACT Act, is perhaps the largest health care and benefit expansion in VA history. The law expands VA health care and benefits for veterans exposed to burn pits, Agent Orange and other toxic substances, as well as "presumptive conditions," conditions automatically presumed to be caused by military service, including arthritis. The PACT Act also allows veterans to enroll without the need to apply for VA disability benefits.

SUPPORT & RESOURCES

When you receive an arthritis diagnosis, your journey begins.



There is no cure for arthritis, but there are many effective treatments. Do your research so that you can understand the changes in your body. Find a community that gets you. The Arthritis Foundation offers podcasts, a Helpline, online and in-person support groups and other resources so those living with arthritis do not feel isolated. Managing stress and mental health issues resulting from living with chronic pain is also imperative for your overall wellness and to help control your arthritis and its symptoms. Find more at arthritis.org/veteran and use these resources to help you learn more about your arthritis:

HELPLINE

The Arthritis Foundation Helpline's team of trained staff provides real people who understand arthritis and have helped thousands of people like you. We have experts who can provide a referral to one of our Helpline Peer Support Volunteers. Each volunteer is trained to listen without judgment and share support. Call 800-283-7800 or visit arthritis.org/I-need-help.

CONNECTIONS

The Live Yes! Connect Group for active-duty service members, retired military and veterans offers guidance and support to those in their journeys with arthritis. The U.S. Department of Veterans Affairs also encourages vets to form support groups focused on shared experiences.

PODCASTS & WEBINARS

The Arthritis Foundation Live Yes! With Arthritis podcast and webinars provide insight to living with arthritis from both experts and patients. Both platforms offer several relevant episodes, including "Battling Back: Veterans & Arthritis," "Arthritis & the Military: Getting the Best Possible Care" and "Arthritis & the Military: The Mental Health-Pain Connection." Find podcast episodes at arthritis.org/liveyes/podcast and webinar episodes at arthritis.org/events/webinars.

Arthritis Foundation