NONOPERATIVE MANAGEMENT OF ARTHRITIS

A Patient Guide from **Andrew L. Merritt, MD**

UNDERSTANDING YOUR ARTHRITIS

Arthritis is a condition that causes joint pain, stiffness, and inflammation. The underlying cause is thinning and wear of the cartilage — the smooth, slippery tissue that cushions the ends of your bones. This happens in most people gradually over many years. Arthritis is extremely common and affects millions of Americans.

There is no cure for arthritis, and the cartilage that has worn away cannot grow back on its own. But the good news is that there are many things you can do to manage your symptoms, slow the progression, and stay active. Many patients live well with arthritis for years — or even indefinitely — without ever needing surgery.

Dr. Merritt and his team have developed this guide based on the best available evidence to help you manage your arthritis without surgery. Not all of these will be right for your individual situation, but many patients have found significant relief using a combination of these approaches.

WEIGHT MANAGEMENT

Maintaining a healthy weight is one of the most powerful things you can do for your arthritic joints. Every pound of body weight puts roughly four pounds of force on your knees with each step. That means losing just 10 pounds takes 40 pounds of pressure off your knees.

Research shows that losing as little as 5–10% of your body weight can lead to meaningful improvements in pain and function. A 2025 review found that patients who lost at least 7–8% of their body weight experienced significant, measurable improvements in both pain and physical ability. The more weight lost, the greater the benefit.

Example: If you weigh 200 pounds, losing 15–20 pounds (about 8–10%) can make a real difference in how your knee or hip feels day to day.

The most effective approach combines a healthy diet with regular exercise. Even modest, gradual weight loss is beneficial — you do not need to reach your "ideal" weight to feel better. If you are struggling with weight management, talk to Dr. Merritt or your primary care doctor about support options.

EXERCISE & PHYSICAL THERAPY

Exercise is one of the most consistently recommended treatments for arthritis across every major medical guideline. It might sound counterintuitive to move a joint that hurts, but staying active is

critical. Once you stop moving, the muscles around the joint weaken, the joint stiffens, and the cycle of pain gets worse.

Studies involving thousands of patients have confirmed that exercise reduces arthritis pain, improves function, and enhances quality of life. The key is finding activities that work for you and doing them consistently.

Strength training: Strengthening the muscles around your joints — especially your quadriceps (thigh) and hip muscles — is one of the best things you can do. Strong muscles act like shock absorbers that take pressure off the joint. A 2025 review found that resistance training two to three times per week at moderate intensity provides the best combination of pain relief and functional improvement.

Low-impact aerobic exercise: Walking, cycling, swimming, and using an elliptical all help maintain fitness without pounding on your joints. Aim for 150 minutes per week (about 30 minutes, five days a week). Start slow and build up gradually.

Flexibility and range of motion: Daily stretching and gentle range-of-motion exercises prevent stiffness and keep your joints moving through their full arc. Yoga and tai chi are excellent options that also improve balance.

Aquatic therapy: Exercising in water is especially helpful for arthritis. The buoyancy takes weight off your joints while the resistance strengthens your muscles. Many patients who struggle with land-based exercise do well in the pool.

Physical therapy: A physical therapist can design a personalized exercise program for your specific joints and severity level. We often recommend a course of formal physical therapy to get started, then transition to a home or gym program.

Key point: The benefits of exercise are greatest when you stick with it over time. Consistency matters more than intensity. Find activities you enjoy so you are more likely to keep doing them.

PAIN MANAGEMENT

Medications

Over-the-counter options: Acetaminophen (Tylenol) can help with mild pain. Anti-inflammatory medications like ibuprofen (Advil, Motrin) and naproxen (Aleve) reduce both pain and inflammation. These work well for many people, but long-term daily use can cause side effects including stomach ulcers, kidney issues, and increased blood pressure. Talk to your doctor about what is safe for you.

Topical treatments: Creams and gels applied directly to the skin over your joint can provide localized relief with fewer side effects than oral medications. Over-the-counter options include topical NSAIDs (Voltaren gel), menthol-based creams (Biofreeze, Icy Hot), and capsaicin cream. These are sold at all pharmacies, and some patients get significant relief from them.

Prescription options: For more significant pain, Dr. Merritt may recommend prescription-strength anti-inflammatories, a short course of oral steroids, or other medications tailored to your situation.

Injections

Cortisone (corticosteroid) injections: These are a powerful anti-inflammatory that can provide relief for weeks to months. They are especially useful for acute flare-ups. Cortisone does not heal the cartilage, but it can significantly reduce pain and swelling to help you stay active. Typically limited to 3–4 injections per year per joint.

Hyaluronic acid ("gel" or "HA") injections: These inject a lubricating substance into the joint to cushion it and reduce friction. Results vary — some patients notice meaningful improvement, while others notice less benefit. Effects can last several months. Most guidelines consider HA a reasonable option if other approaches have not provided enough relief.

Platelet-rich plasma (PRP) injections: PRP uses a concentrated preparation made from your own blood, rich in growth factors and healing proteins. Recent research, including a 2025 meta-analysis, has shown that PRP can provide meaningful pain relief and functional improvement for up to 12 months, particularly in mild to moderate arthritis. PRP has been shown to outperform both cortisone and hyaluronic acid in some studies. The key factor is platelet concentration — higher-concentration preparations tend to work better. PRP is not covered by most insurance plans.

Dr. Merritt and his team can discuss which injection type makes the most sense for your specific situation, including the relative costs, expected benefits, and how they fit into your overall treatment plan.

HOME REMEDIES & SELF-CARE

Heat and cold therapy: Heat (heating pads, warm baths) relaxes muscles and reduces stiffness — use before activity. Cold (ice packs) reduces inflammation and numbs pain — use after activity or during flare-ups. Alternate between the two as needed. Apply for 15–20 minutes at a time with a barrier between the ice/heat and your skin.

Epsom salt baths: Soaking in warm water with Epsom salts may provide temporary relief from joint pain and muscle soreness. The warm water itself helps relax muscles and improve circulation.

Assistive devices: In more severe cases, braces, sleeves, or a cane can reduce strain on the joint and relieve pain. An unloader brace is specifically designed to shift weight off the affected part of the knee and can be very effective for arthritis isolated to one side of the joint.

Activity modification: Pay attention to what aggravates your joint. High-impact activities like running and jumping put more stress on arthritic joints. Switching to lower-impact activities (cycling, swimming, elliptical) lets you stay fit while reducing wear and tear.

Mind-body practices: Yoga, tai chi, meditation, and deep breathing have all been shown to help manage chronic pain. They reduce stress hormones that amplify pain, improve flexibility, and can improve your overall sense of well-being.

SUPPLEMENTS

Some supplements have shown modest benefits for joint pain in clinical studies. Results vary from person to person, and no supplement has been proven to rebuild cartilage. That said, these options are generally safe and some patients find them helpful:

Supplement	What the Evidence Shows

Glucosamine + Chondroitin	The most studied joint supplements. A 2025 systematic review found that over 90% of studies reported positive outcomes, especially when glucosamine and chondroitin are used together. Typical dose: 1,500 mg glucosamine and 1,200 mg chondroitin daily. Generally safe with minimal side effects (mild stomach upset in some).
Turmeric / Curcumin	Has well-studied anti-inflammatory and pain-relieving properties. Look for formulations designed for better absorption (such as those containing piperine/black pepper extract). Modest but real benefits shown for knee arthritis pain.
Fish Oil (Omega-3)	Reduces inflammatory markers in the blood. Look for a high-quality product with at least 1,000 mg combined EPA and DHA daily. Stop 1–2 weeks before surgery (can increase bleeding risk).
Vitamin D	Low vitamin D levels are linked to increased inflammation and pain. Many people in the Pacific Northwest are deficient. Ask your doctor to check your level.
Boswellia Serrata	A plant-based extract with anti-inflammatory properties. A 2025 review from Stanford found modest benefits for joint pain with a favorable safety profile.

Important: Some supplements can interact with medications or should be stopped before surgery. Supplements are not regulated by the FDA in the same way as prescription drugs, so quality varies — choose reputable brands.

DIET & NUTRITION

Anti-inflammatory diet: What you eat can either increase or decrease inflammation in your body. An anti-inflammatory diet focuses on whole foods, healthy fats (fish, olive oil, nuts), plenty of fruits and vegetables, and limited processed foods and sugar. A 2025 review found that anti-inflammatory diets significantly reduced pain in patients with osteoarthritis. Dr. Merritt has a separate Anti-Inflammatory Diet handout with more detail — merrittsurgery.com/nutrition.

Protein: Most people do not eat enough protein, and this becomes more important as we age. Protein is essential for maintaining the muscle strength that supports your joints. Aim for a palm-sized serving of protein at every meal (chicken, fish, eggs, Greek yogurt, beans, tofu). Dr. Merritt has a separate protein guide with more information — merrittsurgery.com/nutrition.

Stay hydrated: Your cartilage is about 80% water. Staying well-hydrated helps keep your joints lubricated and functioning as well as possible.

AVOID SMOKING AND TOBACCO

Tobacco use greatly increases inflammation throughout your body. Many studies have shown that smokers experience more pain from orthopedic injuries, higher complication rates after surgery, and slower healing. If you smoke, quitting is one of the single most impactful things you can do for your overall joint health. Talk to your primary care doctor about resources to help you quit.

PUTTING IT ALL TOGETHER

The most effective approach is a combination of several of these strategies. No single treatment works as well on its own as a team approach. A practical starting framework:

- Stay active with regular low-impact exercise and strengthening (the foundation).
- Lose weight if you are overweight — even a modest loss helps.
- Eat an anti-inflammatory diet and get enough protein.
- Use over-the-counter medications or topical treatments as needed for pain.
- Consider physical therapy if you are not sure where to start with exercise.
- Talk to Dr. Merritt about injections if lifestyle measures are not enough.
- Try supplements if interested — they are generally safe and may provide additional benefit.

The Bottom Line: Arthritis is a manageable condition. Surgery is an option when the time is right, but for many patients it is not needed for a long time, or at all. The steps in this guide can help you stay active, reduce your pain, and maintain your quality of life. Dr. Merritt and his team are here to help you navigate your options at every stage.

This handout is for general education only and is not a substitute for personalized medical advice. Please discuss any changes to your activity, medications, or supplements with your healthcare team.