

KNEE ARTHRITIS

Nonoperative Management · A Patient Guide

YOUR PLAN AT A GLANCE

EXERCISE	The foundation. Quad and hip strengthening 2–3× a week, plus 150 minutes a week of low-impact cardio. Cycling is my favorite
WEIGHT	The single most powerful step. Losing 5–10% of your body weight brings real improvement
MEDICINES	Voltaren gel for almost every knee. Tylenol or anti-inflammatories as needed. No opioids
INJECTIONS	Cortisone for flares (3–4 a year at most). Gel or PRP in selected cases
BRACES AND AIDS	Compression sleeve, unloader brace for one-sided arthritis, cane or hiking poles
DIET AND SUPPLEMENTS	Anti-inflammatory diet, enough protein, and 1–2 supplements tried for 3 months

Understanding Your Knee Arthritis

Knee arthritis is the wearing away of the smooth cartilage that covers the ends of your thigh bone, shin bone, and kneecap. As that cushion thins, much like tire tread wearing down, the knee becomes painful, stiff, and swollen. Most people first notice pain on stairs, stiffness after sitting, or a knee that swells after a long day.

Your knee has three compartments: the inside, the outside, and behind the kneecap. Arthritis can involve one or all three, and where it is matters. Wear on just one side responds well to a special brace and, eventually, a partial knee replacement. Kneecap arthritis hurts with stairs and squatting and responds especially well to thigh strengthening. Standing X-rays show me which parts are involved and guide everything that follows.

There is no cure for arthritis, and worn cartilage does not grow back. But the knee, more than any other joint, responds to the things you can do yourself. Many of my patients manage their knees for years, or indefinitely, without surgery. When a knee does wear out, total and partial knee replacement are excellent, reliable options. **Surgery is the last step, not the first.**

Good to know

Nearly every arthritic knee also shows a worn meniscus on MRI. That is part of the arthritis, not a separate problem. Arthroscopic surgery to "clean up" a meniscus tear in an arthritic knee works no better than physical therapy, and I rarely recommend it.

Weight Management

Keeping a healthy weight is the single most powerful thing you can do for an arthritic knee. Every pound of body weight puts about **four pounds of force** through your knee with each step, and more on stairs and hills. Losing 10 pounds takes 40 pounds of pressure off your knees with every step.

Losing just **5–10% of your body weight** leads to real improvement in knee pain and function, and the more you lose, the better you feel. You do not need to reach an ideal weight: even modest, gradual loss helps. If diet and exercise have not worked, newer weight-loss medicines (the GLP-1 class) have been shown to reduce knee arthritis pain, and they are worth discussing with your primary care doctor. I am happy to help coordinate.

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

Exercise and Physical Therapy

Exercise is the most consistently recommended treatment for knee arthritis in every major guideline. It sounds backwards to move a joint that hurts, but once you stop moving, your thigh muscles weaken, the knee stiffens, and the pain cycle gets worse.

Quad strengthening	The big muscle on the front of your thigh is the knee's shock absorber, and weak quads are one of the strongest predictors of knee pain. Straight-leg raises, wall sits, step-ups, leg press, and cycling all build the quad without pounding the joint. Work your hips and glutes too: they control how the knee tracks. Aim for 2–3 sessions a week .
Low-impact cardio	Cycling is my favorite exercise for an arthritic knee. Raise the seat a little higher than usual so the knee does not bend too deeply. Flat walking, swimming, and the elliptical are also excellent. Aim for 150 minutes a week (about 30 minutes, 5 days a week).
Keep it straight	An arthritic knee loses full straightening first, and a knee that cannot straighten makes every step harder. Prop your heel on a pillow and let the knee sag straight for a few minutes each day. Stretch your hamstrings and calves too.
Pool exercise	Water takes weight off the knee while the resistance builds muscle. Many patients who struggle on land do very well in the pool.
Physical therapy	A therapist can build a program for your specific knee. I often recommend a short course of formal PT to get started, then a home or gym program you can keep up on your own.

Key point

Consistency matters far more than intensity. Find activities you enjoy so you keep doing them.

Medicines

Over the counter	Acetaminophen (Tylenol) helps mild pain. Anti-inflammatories like ibuprofen (Advil, Motrin) and naproxen (Aleve) reduce both pain and swelling and work well for many people. Daily long-term use can cause stomach ulcers, kidney problems, and high blood pressure, so check with your doctor about what is safe for you.
Voltaren gel	The knee sits close to the skin, which makes it the ideal joint for medicine you rub on. Over-the-counter Voltaren gel is strongly recommended for knee arthritis and gives much of the benefit of a pill with far fewer side effects. I recommend it to almost every knee patient. Biofreeze, Icy Hot, and capsaicin cream can also help.

Prescription	For bigger pain, I may prescribe a stronger anti-inflammatory or a short course of oral steroids for a bad flare. I do not use opioids for arthritis: they do not work well for joint pain and the risks outweigh the benefits.
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Injections

Cortisone	A powerful anti-inflammatory that can give weeks to months of relief, especially for a swollen, flared-up knee. It is a quick office procedure I can do the same day. It does not heal cartilage, but it can calm things down enough to get you exercising again. I limit cortisone to 3–4 injections per year per knee , and we avoid it in the 3 months before a knee replacement because it raises infection risk.
Hyaluronic acid (gel)	A lubricating substance injected into the knee. The evidence is mixed: the average benefit is small and guidelines do not recommend it routinely, but some patients get months of relief. I consider it reasonable if other approaches have not been enough and you are trying to delay surgery. Insurance coverage varies.
Platelet-rich plasma (PRP)	A concentrate made from your own blood, rich in healing proteins. The knee is where almost all PRP research has been done, and results are mixed. Several reviews show pain relief lasting up to 12 months in mild to moderate arthritis; other good studies show no benefit over placebo. Higher-concentration preparations tend to work better. PRP is not covered by insurance.
Stem cells	Heavily advertised, but there is no good evidence they rebuild cartilage or beat PRP. They are expensive and unregulated. I do not recommend them.

Braces, Sleeves, and Walking Aids

Compression sleeve	A simple knee sleeve adds warmth and a sense of stability, reduces swelling, and helps many patients feel more confident on their feet. Inexpensive and worth trying.
Unloader brace	If your arthritis is on one side of the knee (the most common pattern), an unloader brace shifts weight off the worn side onto the healthy side. For the right knee it can be very effective, especially for hiking, golf, or long days on your feet. If it helps you, that is also a good sign you may be a candidate for a partial knee replacement someday.
Shoe inserts	Wedge insoles sold to "unload" the knee have been well studied and do not work. A good cushioned, supportive shoe is worth far more.
Cane or hiking poles	A cane in the hand opposite your painful knee takes real load off the joint. Hiking poles do the same on the trail.

Home Remedies and Self-Care

Heat and cold	Heat before activity to loosen up; ice after activity or during a flare to calm swelling. The knee is close to the surface, so ice works especially well. Use 15–20 minutes at a time with a towel between the pack and your skin. Epsom salt baths give many patients temporary relief.
Activity changes	Running, jumping, deep squats, kneeling, and long downhill stretches stress an arthritic knee the most. Go down stairs one at a time with your good leg first and use the railing. Switching to cycling, swimming, or the elliptical keeps you fit while reducing wear. This is about being smart, not giving up what you love.

Mind and sleep

Yoga, tai chi, meditation, and breathing exercises are proven to help with chronic pain. Poor sleep makes pain worse, so protect it with a consistent schedule and a cool, dark room.

Diet and Nutrition

Anti-inflammatory diet

What you eat can raise or lower inflammation in your body. Focus on whole foods, healthy fats (fish, olive oil, nuts), plenty of fruits and vegetables, and limited processed food and sugar. Studies show this way of eating reduces arthritis pain, and it helps with weight at the same time.

Protein

Most people do not eat enough protein, and it matters more as we age. Protein maintains the muscle that protects your joints. Aim for a **palm-sized serving at every meal** (chicken, fish, eggs, Greek yogurt, beans, tofu).

Stay hydrated

Cartilage is mostly water. Drinking enough keeps your joints as well lubricated as they can be.

My nutrition guide

My full anti-inflammatory diet guide and specific protein targets are on my nutrition page: merrittsurgery.com/surgeries/nutritional-optimization



Scan for the nutrition guide

Supplements

Some supplements have shown modest benefit for joint pain. Results vary, and no supplement rebuilds cartilage. But they are generally safe, and some patients find them helpful. **My approach: pick one or two, try them for 3 months, and keep going only if you notice a real difference.**

Supplement	What the evidence shows
Glucosamine + chondroitin	The most studied joint supplements. Results are mixed: many studies show a small benefit, especially when taken together, while the largest high-quality trials show little difference from placebo. Typical dose: 1,500 mg glucosamine and 1,200 mg chondroitin daily. Safe; mild stomach upset in some.
Turmeric (curcumin)	Well-studied anti-inflammatory with modest but real benefit for arthritis pain. Look for a formula designed for absorption (with piperine or black pepper extract).
Fish oil (omega-3)	Lowers inflammation in the blood. Choose a quality product with at least 1,000 mg combined EPA and DHA daily. Stop 5 days before surgery (bleeding risk).
Vitamin D	Low levels are linked to more inflammation and pain, and many people in the Pacific Northwest are deficient. Ask your doctor to check your level.
Boswellia serrata	A plant extract with anti-inflammatory properties. Modest benefit for joint pain with a good safety record.

Important

Some supplements interact with medicines or must be stopped before surgery. Supplements are not regulated like prescription drugs, so quality varies. Choose reputable brands and tell me everything you take.

Avoid Smoking and Tobacco

Tobacco greatly increases inflammation throughout your body. Smokers have more pain, heal more slowly, and have far higher complication rates after surgery. If you smoke, quitting is one of the most impactful things you can do for your joints. Your primary care doctor can help, and if you ever need a joint replacement, I will ask you to quit well before surgery.

Putting It All Together

No single treatment works as well alone as several together. A practical starting plan for your knee:

1. **Stay active** with low-impact exercise and quadriceps strengthening. This is the foundation.
2. **Lose weight** if you are overweight. The knee is where this matters most.
3. **Eat an anti-inflammatory diet** and get enough protein.
4. **Use Voltaren gel** and over-the-counter pain medicine as needed.
5. **Try a compression sleeve**; ask about an unloader brace if your arthritis is on one side.
6. **Consider physical therapy** if you are not sure where to start.
7. **Talk to me about injections** if lifestyle measures are not enough.
8. **Try a supplement or two** if you are interested.

The bottom line

Knee arthritis is a manageable condition. Knee replacement (partial or total) is an excellent option when the time is right, but for many patients that time is a long way off, or never comes at all. The steps in this guide can help you stay active, reduce your pain, and protect your quality of life. My team and I are here to help at every stage.

Learn more and watch the videos

My website explains knee arthritis, treatment options, and partial and total knee replacement in more detail. merrittsurgery.com/surgeries/knee-arthritis-total-knee-replacement



Scan to learn more
and watch videos

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