

FREE GUIDE

Knee Arthritis: What It Is, What Helps, and How to Exercise Safely

A practical guide to understanding knee arthritis — and why exercise is one of the most effective treatments available.

If you have knee arthritis, you may have been told to take it easy, avoid certain activities, or simply "live with it." For most people, that advice is incomplete — and for many, it makes things worse. This guide explains what knee arthritis actually is, what the evidence says about treating it, and how the right exercise program can significantly reduce your pain and improve your function.

WHAT IS KNEE ARTHRITIS?

Understanding what's actually happening in your joint

Osteoarthritis (OA) is the most common form of knee arthritis. It occurs when the cartilage that cushions the ends of the bones in your knee gradually wears down. As cartilage thins, the joint may become swollen, stiff, and painful — especially after inactivity or with prolonged use.

Key facts about knee OA:

- It's the leading cause of disability in adults over 50
- It's more common in women and in people with a history of knee injury
- Being overweight increases the load on the knee significantly — losing 10 lbs reduces knee force by roughly 40 lbs per step
- An X-ray showing arthritis does not determine how much pain you'll have — many people with severe X-ray findings have minimal pain, and vice versa

"The degree of arthritis visible on an X-ray is a poor predictor of how much pain someone feels. How you move and how strong you are matters far more."

WHY EXERCISE IS THE FIRST-LINE TREATMENT

What the research actually says

Multiple major medical organizations — including the American College of Rheumatology and the Osteoarthritis Research Society International — recommend exercise as a core treatment for knee OA. Here's why it works:

Strengthens the muscles that protect the knee.

The quadriceps, hamstrings, hip abductors, and glutes all share the load that would otherwise go directly to the knee joint. Stronger supporting muscles mean less stress on the cartilage with every step.

Maintains and improves cartilage health.

Cartilage has no direct blood supply — it gets its nutrients from the synovial fluid that moves through the joint during activity. Regular movement is essential for cartilage health. Inactivity starves it.

Reduces inflammation.

Moderate exercise has a well-documented anti-inflammatory effect. Regular activity can reduce the systemic inflammation that contributes to arthritis pain.

Improves proprioception and joint stability.

Arthritis can impair the knee's ability to sense its own position, increasing fall risk and instability. Balance and coordination training helps restore this.

Manages weight.

Every pound lost reduces the force on the knee joint during walking by approximately four pounds. Exercise combined with appropriate nutrition is the most effective long-term weight management strategy.

THE BEST EXERCISES FOR KNEE ARTHRITIS

What to do — and what to avoid

Generally well-tolerated	Use caution / modify as needed
Swimming and water aerobics	Running on hard surfaces

Cycling (stationary or outdoor)	Deep squats with heavy load
Walking on even surfaces	High-impact jumping or plyometrics
Leg press (partial range)	Stairs with significant knee pain
Seated leg extension (light resistance)	Lunges if they provoke sharp pain
Hip strengthening exercises	
Chair stands and mini squats	

Important: "use caution" does not mean "never do." Many people with knee arthritis can gradually work up to activities on the caution list with appropriate programming and progression. The goal is to find what works for your knee.

PRACTICAL TIPS FOR GETTING STARTED

Making exercise work for your knees

- Start with shorter duration and lower intensity — 10–15 minutes is a perfectly valid starting point
- Some discomfort during exercise is normal. Sharp pain, or pain that significantly worsens after exercise, is a signal to modify
- Warm up before exercise with gentle movement — cold, stiff joints are more susceptible to irritation
- Ice after exercise (15–20 minutes) if you experience increased swelling or soreness
- Consistency matters more than intensity. Three moderate sessions a week will produce better results than one hard session
- Track your pain before, during, and 24 hours after exercise. This data helps you understand what your knee tolerates

READY TO TAKE THE NEXT STEP?

Get a program built around your specific situation

A guide like this gives you the framework — but the most effective program is one built specifically for your knee, your arthritis severity, and your goals. Tim specializes in exactly this kind of work.

Tim Williams (BodyGrades) is based in Roswell, GA and works with adults 40+ managing pain, rebuilding strength, and returning to the activities they love. With 15 years as a licensed physical therapist assistant, he understands your body at a clinical level — and comes to you.

**Book your assessment at bodygrades.com
or call Tim directly at (678) 316-9459**

Tim Williams, BS, EP-C, KTP | Former Licensed Physical Therapist Assistant | 20+ Years in Healthcare & Fitness