

Knee osteoarthritis (OA)

What helps, what to expect, and how to keep moving.

OA involves the whole joint.

Cartilage, bone, the joint lining, and other tissues can change. It is more complex than simply wearing a knee out through use. [1]

Symptoms are only part of the picture

Pain with activity, stiffness after sitting, and difficulty with stairs or getting up from a chair are common. The pattern varies. Imaging changes and symptoms do not always match. [1,2]

Three useful priorities

01 Build strength

Work toward the activities you need: standing up, walking, and climbing steps. Your PT can help choose an appropriate starting point.

02 Keep some regular activity

Walking, cycling, or pool exercise may be options. Choose an amount you can repeat rather than doing everything on a good day.

03 Use support when it helps

A walking aid, appropriately fitted brace, or medication may make activity more manageable. Ask your clinician which options fit your needs. [3,4]

What about surgery? Knee replacement may be considered when symptoms substantially affect life and suitable nonsurgical care is ineffective or unsuitable. Arthroscopic washout is not a routine OA treatment. [3]

General education for adults with diagnosed knee OA. Not a post-surgery protocol.

Move & strengthen

Five options across pages 2-4. Start with the ones that fit your needs.

01 Heel slide



START

FINISH

Purpose: practice knee bending. Lie on a firm bed or treatment table you can get on and off safely. Slide one heel toward your bottom, then slide it back. Keep the heel supported.

Easier: use a smaller bend. **Example start:** 5 gentle repetitions per side, once daily. [5,7]

02 Seated knee straightening



START

FINISH

Purpose: thigh strength. Sit tall, slowly straighten one knee, then lower it. Keep your thigh on the chair.

Easier: use a smaller range. Do not force it straight.

Example strength start: 1 set of 5 slow repetitions per side on 2 days each week. Use the response and progression guide on page 5. These are adaptable examples, not a required dose.

Practice everyday strength

Use reliable support. Stop if you feel unsafe or your knee gives way.

03 Sit to stand



START



FINISH

Purpose: getting out of chairs. Feet under you, lean forward and stand. Use the armrests as needed. Sit back down slowly.

Easier: a higher, firm seat and your hands. Use a chair against a wall.

04 Supported heel raise



START



FINISH

Purpose: calf strength for walking. Hold a fixed counter. Keep your toes down as both heels rise, then lower slowly.

Easier: lift your heels while seated. Keep both feet supported at the toes.

Example start: 1 set of 5 controlled repetitions on 2 days each week. Stop before form becomes difficult to control. Using more support or doing fewer repetitions can help you get started. [4,7,8]

Illustrations show examples. Follow existing precautions and get help if unsteady.

Build toward stairs & walks

Step-ups are optional. Use them only when the setup feels secure.

05 Low supported step-up



Purpose: practice stairs. Hold a fixed rail. Place one whole foot on a low, stable step. Step up, then return slowly, keeping support.

Easier: tap one foot onto the step and back without lifting your body. Skip if unsafe.

Example start: 3-5 step-ups with each leg leading. Begin on 2 days per week. Ask your PT to check your setup and step-down technique. [5,7]

Add an activity you can repeat

Walking: choose a level, familiar route. Try 2-5 minutes, or less if needed. Short bouts count; use your usual walking aid if prescribed.

Stationary cycling: start with low resistance for 2-5 minutes. Adjust the seat so the knee bends comfortably and is not locked straight at the bottom. Use a bike you can mount safely.

Build gradually: if the same amount feels manageable over several sessions and your next-morning knee symptoms are not worse, add a little time to one bout. Avoid increasing time and resistance together. [8]

A 150-minute weekly aerobic activity goal is a longer-term public-health target, not a starting requirement. Start where you are and build as able. [8]

Choose, check, then build

You do not need all five exercises on day one.

Choose: try the heel slide for stiffness, plus 1-2 strength movements that match your goals. The suggested amounts are starting examples; do less if needed.

Check: mild discomfort can occur. Stop for sharp or escalating pain, instability, or loss of control. Knee pain should settle and not be worse the next morning. [5]

Build: after several manageable sessions, add 1-2 repetitions toward 8-12. Later, consider a second set with your PT. Change one thing at a time.

When symptoms flare

Reduce the range, repetitions, resistance, or walking time temporarily. Keep gentle movement if comfortable and rebuild as symptoms settle. Ask for reassessment if symptoms persist or change unexpectedly. [5]

Get urgent medical advice: a hot, red knee with fever or feeling unwell; inability to bear weight; major swelling or deformity; or a knee that becomes locked and cannot straighten. Do not assume these are an OA flare. [6]

My goal: _____

Chosen movements / starting amount: _____

Walking or cycling plan: _____

Response the next morning: _____

One small change for next time: _____

Sources & review

- 1 NIAMS: Osteoarthritis
- 2 MedlinePlus: OA overview
- 3 NICE: OA recommendations
- 4 AAOS: Arthritis of the knee

- 5 NHS inform: Knee OA exercises
- 6 NHS: Knee pain - urgent signs
- 7 Royal Orthopaedic Hospital: OA exercises
- 8 CDC: Physical activity and arthritis

Exercise selection, example starting doses, and progression are educational suggestions to individualize with your PT; they are not a single guideline-prescribed protocol.

Reviewed October 26, 2026. Follow your treating clinician's plan.