

My Knee Hurts Walking Downhill

Understanding Downhill Knee Pain

Why Does Downhill Walking Hurt My Knee?

Walking or running downhill is one of the most biomechanically demanding activities for the knee joint. On flat ground, the knee experiences forces of about 1.5 times your body weight with each step. On a downhill slope, this increases dramatically — the knee must eccentrically control your descent, absorbing forces of 3 to 5 times body weight. The kneecap joint, in particular, is under extreme stress on any downhill surface.

If your knee hurts specifically going downhill — on trails, hills, slopes, or inclined treadmills — it is telling you something important about what is going on inside the joint.

What Is Most Likely Causing This?

Patellofemoral syndrome (most common)

- The kneecap is not tracking correctly and the extra downhill pressure exposes this
- Typically felt as a diffuse ache behind or around the kneecap
- Often accompanied by similar pain on stairs

Knee osteoarthritis

- Arthritic surfaces are compressed more heavily going downhill
- Pain is often on one side of the joint (inner or outer)
- Associated stiffness and swelling

Chondromalacia

- Roughened cartilage behind the kneecap grinds under downhill load
- Often accompanied by a grinding or crunching sensation

IT band syndrome

- The IT band becomes taut at approximately 30° of knee flexion — the angle used on descent
- Sharp pain on the outer side of the knee, often in runners

Meniscus problem

- The meniscus is compressed and twisted during downhill descent

- Pain typically on the inner or outer joint line

What Does Downhill Knee Pain Feel Like?

- Pain that begins shortly after starting downhill and increases the longer you descend
- Sharp or aching pain that is much worse going down than going up
- The need to walk sideways, take tiny steps, or slow dramatically to manage the pain
- Lingering soreness or swelling after a hike or walk with elevation changes
- Pain that resolves on flat ground but returns immediately on any incline

What Else Makes It Worse?

- Steeper grades — the steeper the hill, the higher the joint forces
- Longer distances — cumulative fatigue leads to worsening mechanics
- Worn or unsupportive footwear
- Carrying a heavy pack or load
- Quad weakness or fatigue — muscles fail and the joint absorbs the excess force
- Hiking without trekking poles — poles can reduce knee load by up to 25%

Practical Tips While You Are in PT

- Use trekking poles or a walking stick on hills — they significantly reduce knee load
- Shorten your stride going downhill and keep a slight forward lean
- Avoid locking the knee straight on descent — maintain a soft, slightly bent knee
- Take switchbacks rather than going straight down steep terrain
- Wear supportive footwear with adequate cushioning

When Should I Seek Urgent Care?

- A fall due to the knee giving way on a slope
- Sudden, severe pain and swelling following a downhill step or misstep
- Significant instability — the knee buckles or feels like it will collapse

The Good News

Downhill knee pain is almost always due to a combination of biomechanical factors and muscle weakness — and both respond very well to physical therapy. Strengthening the quadriceps and hips, improving kneecap tracking, and learning better movement strategies for descending make a profound difference. Most patients can return to hiking, trail running, and hill walking with significantly reduced or no pain.

With targeted physical therapy, most patients successfully **return to hiking and hills** — often with little to no pain — within 6 to 10 weeks.

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