

Ankle and Achilles

Sprains, instability, tendon load, and impingement in dance

Kinesphere Lab Editorial Team

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What this guide helps you do. Use this guide to separate a twist or sprain pattern from gradual tendon pain and front- or back-of-ankle pinching, then choose safe modifications for relevé, pointe, landings, turns, and floorwork.

Scope. Educational guidance for dancers, families, and teachers. It supports safer decisions and clearer communication; a clinician determines diagnosis and individualized restrictions.

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1 How to use this guide

This guide is designed for a dancer who has pain now, or who keeps developing the same problem. Its job is to help you describe the pattern, make a safe class decision, and communicate clearly with a parent, teacher, or clinician. It cannot determine the diagnosis from symptoms alone.

Key idea

Use four observations together: **exact location, how it began, which movement provokes it, and what happens later that day or the next morning.** One symptom by itself is rarely specific enough.

1.1 The four-question check

1. **Where?** Point with one finger. A one-fingertip spot on bone is more concerning than broad, symmetrical muscle soreness.
2. **When?** Sudden fall, twist, pop, collision, or landing; or gradual pain that built over several classes.
3. **What load?** Walking, stairs, plié, relevé, turnout, extension, jumps, pointe, floorwork, lifts, or repeated rehearsal.
4. **What response?** Better after warm-up, steadily worse with repetition, painful at rest, or worse the next morning.

MODIFY

Mild but recurring or movement-specific pain: remove the painful element and tell a teacher, parent, or guardian.

STOP

Pain changes technique, grows with repetition, causes limping, weakness, swelling, loss of motion, or instability.

SEEK CARE

Focal bone pain, deformity, inability to use or bear weight, locking, neurologic signs, rest/night pain, or a serious fall.

SEEK MEDICAL CARE

A dancer who is a minor should tell a parent or guardian about a significant injury. Urgent evaluation is appropriate for deformity, inability to use or bear weight on the part, rapidly increasing swelling, an open wound, a cold or pale limb, persistent numbness, progressive weakness, or serious head, neck, or spine symptoms.[1]

2 Know the region

The ankle complex must provide mobility for plié and pointe while remaining stable during landings, turns, balances, and directional changes. The lateral ligaments resist rolling outward, the syndesmosis connects the lower leg bones above the ankle, the Achilles transmits calf force to the heel, and tendons around the ankle stabilize the foot. Dancers also develop pain when bone or soft tissue is compressed at the front or back of end-range ankle positions.[2, 3]

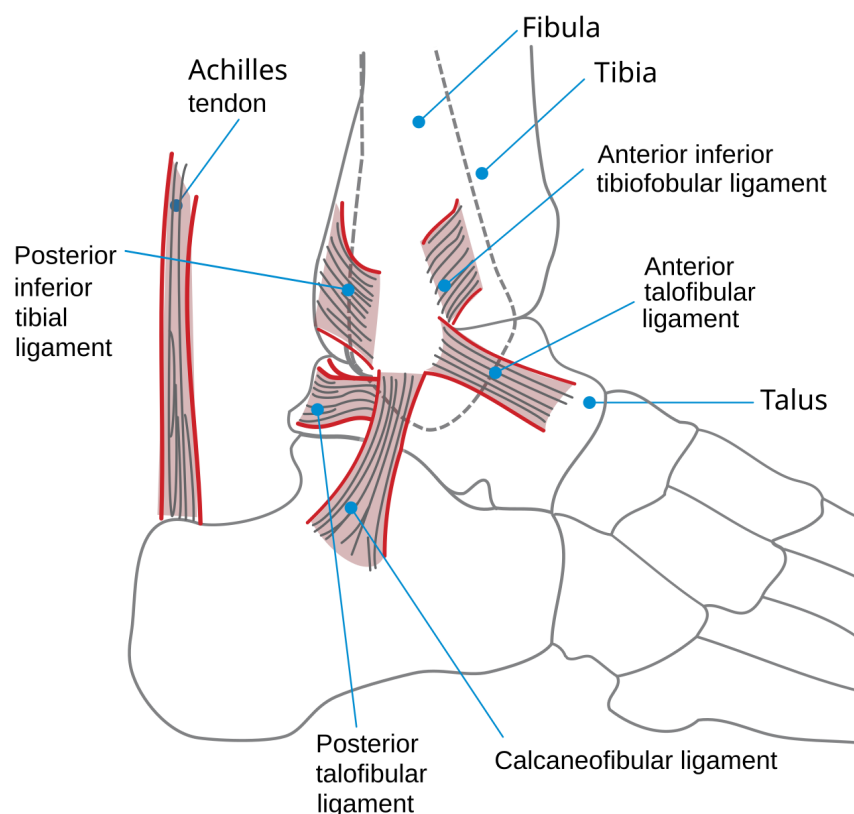


Figure 1. Lateral ankle anatomy, including the Achilles tendon and the main outer-ankle ligaments. Source: U.S. government illustration; vector version by Jak, public domain, via the [Wikimedia Commons source page](#); white background and crop added.

In dance

Plié demands controlled ankle dorsiflexion. **Relevé and pointe** demand plantar flexion and calf-tendon force. **Landings and turns** add rapid stabilization. Pain only at one end range can reflect impingement; pain during force production can reflect tendon or muscle load; sudden pain after a roll raises concern for ligament or fracture injury.

3 Find the symptom pattern

Location and behavior	Pattern it can resemble	Dance clues	First decision
Outer ankle after a roll or awkward landing	Lateral ankle sprain	Swelling, bruising, tenderness, fear or giving way	Stop turns, jumps, and unstable balance; assess weight bearing and fracture signs
Pain higher above the ankle after twisting	High-ankle or syndesmototic sprain	Pain with rotation, push-off, or squeezing the lower leg; recovery often slower	Prompt assessment; do not treat as a minor routine sprain

Gradual Achilles pain or morning stiffness	Achilles tendinopathy or paratendon irritation	Worse with repeated relevé, jumps, running, or after load	Reduce tendon load and seek progressive rehabilitation guidance
Sudden Achilles pop with loss of push-off	Achilles rupture pattern	Feeling kicked, immediate weakness, inability to rise normally	Urgent evaluation; protect the ankle
Pinch at the front in deep plié	Anterior ankle impingement or joint irritation	End-range dorsiflexion pain, sometimes after repeated sprains	Reduce deep plié and forced ankle range; assess if persistent
Pinch behind the ankle in pointe or relevé	Posterior impingement or os trigonum pattern	End-range plantar-flexion pain; may overlap with FHL symptoms	Remove pointe and repeated end range; obtain assessment if persistent
Outer or inner tendon pain with movement	Peroneal, posterior tibial, or FHL tendon pattern	Pain follows a tendon path; may click or feel unstable	Reduce the provoking movement and assess recurrent symptoms

4 Common ankle and Achilles injury patterns

Lateral ankle sprain

Usually feels like. Outer-ankle pain after rolling the foot, with variable swelling, bruising, tenderness, and loss of confidence.

Do today. Stop jumping, turns, and unstable single-leg work. Protect the ankle and use only the amount of weight bearing that is comfortable and medically permitted.

Why follow-up matters. Early supported movement and progressive balance and strength are commonly part of rehabilitation, while premature return without restoring control increases recurrent-sprain risk.[4, 5]

Seek care when. Weight bearing is difficult, tenderness is over bone, swelling is large, the ankle appears deformed, or numbness/coldness occurs.

Chronic ankle instability

Usually feels like. Repeated giving way, recurrent sprains, fear during landings or turns, or difficulty controlling demi-pointe after a prior sprain.

Do today. Remove unpredictable landings and fast direction changes. A brace or tape may be useful when prescribed, but external support does not replace rehabilitation of balance, strength, and movement control.[4]

Achilles tendinopathy

Usually feels like. Gradual tendon pain, stiffness after rest, and reduced tolerance for relevé, jumps, running, or repeated calf work.

Do today. Reduce the total tendon load rather than stretching aggressively into pain. A clinician-guided progressive loading program is more useful than indefinite complete rest for many tendon cases.[6]

Seek care when. There was a sudden pop, immediate weakness, a gap, inability to push off, or rapidly worsening swelling.

Anterior ankle impingement

Usually feels like. A pinch at the front of the ankle during deep plié, landing, or forced dorsiflexion.

Common compensation. Heels rise early, arches collapse, turnout is forced, or the dancer avoids depth.

Do today. Limit depth to a pain-free controlled range. Do not force the knee forward while holding the heel down solely to “gain” ankle range. Persistent pinching deserves assessment.

Posterior ankle impingement and os trigonum pattern

Usually feels like. A sharp or deep pinch behind the ankle at full pointe, high relevé, or repeated plantar flexion.

Why distinction matters. Bone compression, FHL tendon irritation, and other posterior structures can produce overlapping symptoms.[3, 7]

Do today. Remove pointe and repeated end-range plantar flexion. Avoid repeatedly forcing the ankle to see whether the pinch remains.

High-ankle sprain

Usually feels like. Pain above the ankle after a twisting mechanism, often with pain during rotation and push-off.

Do today. Stop dance and arrange assessment. These injuries often require a different protection and return plan from a routine lateral sprain.

5 What to do today

5.1 Protect the irritated area from repeated testing

- ✓ End the movement that reproduces sharp, focal, unstable, or escalating pain.
- ✓ Tell the teacher exactly which movements provoke symptoms. Replace those movements rather than silently reducing their quality.
- ✓ Keep ordinary movement that is comfortable and does not worsen symptoms later, unless a clinician has instructed complete rest or protection.
- ✓ Record location, onset, swelling, bruising, clicking, weakness, and the next-morning response.
- ▲ Avoid repeatedly hopping, forcing range, stretching hard, rolling directly over a focal bone spot, or “checking” the injury every few minutes.
- ▲ Do not use pain medicine, tape, or a warm-up as proof that the tissue is ready for full dancing. Symptom masking can hide worsening load intolerance.

Why this matters

A short period of protected cold may reduce discomfort after an acute injury if skin sensation is normal and the cold source is wrapped. It does not accelerate every type of healing and it is not a readiness test. Swelling, function, location, and response to load matter more than whether the area feels temporarily numb.

5.2 Communication script

Practical script

“The pain is at [exact location]. It began [suddenly / gradually] during [movement]. It is [better / the same / worse] with walking and is [better / worse] the next morning. I also notice [swelling, bruising, weakness, clicking, locking, numbness, or none]. I need to remove [specific movement] until this is assessed or settles.”

6 Ankle-specific class modifications

MODIFY AND REPORT

Possible substitutions include flat-footed barre within comfortable range, marking turns without pivoting, upper-body or port de bras work, floor barre, and non-impact centre combinations. The exact restriction depends on whether the problem is ligament, tendon, bone, or impingement related.

STOP THE PROVOKING ACTIVITY

Stop if the ankle gives way, swelling increases, the heel drops suddenly during relevé, pain becomes sharper with each repetition, or you must roll through the foot asymmetrically.

SEEK MEDICAL CARE

Urgent evaluation is appropriate for deformity, inability to bear weight, severe swelling, numbness/coldness, an open injury, or a sudden Achilles pop with loss of push-off. Prompt evaluation is also appropriate for pain above the ankle, focal bone tenderness, and persistent posterior or anterior impingement.[1, 5]

7 Returning to dance

Return should be based on function and symptom response rather than the number of days since the pain began. Dance-medicine literature supports staged progression from basic movement to dance-specific demand rather than a direct jump into full class.[8]

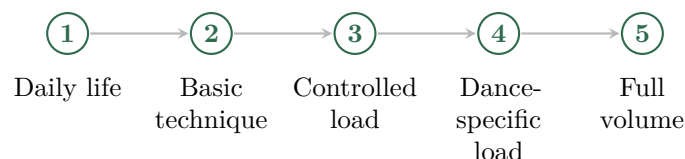


Figure 2. General return sequence. Advance only when the current step is controlled and does not create a meaningful symptom increase later that day or the next morning. Region-specific restrictions take priority.

Key idea

A stage is tolerated only when symptoms remain acceptable **during the activity, later that day, and the next morning**. New swelling, limping, altered alignment, loss of control, or a clear pain increase means the load exceeded current capacity.

7.1 Ankle and Achilles progression

1. Comfortable walking, stairs, and basic ankle motion.
2. Stable double-leg balance and controlled weight shift.
3. Supported barre in flat with controlled plié range.
4. Two-leg relevé, then single-leg relevé with equal height and control when permitted.
5. Centre balances and slow turns without giving way.
6. Two-leg small jumps with quiet, aligned landings.
7. One-leg landings, faster direction changes, and turns.
8. Pointe, large jumps, and full rehearsal volume after region-specific criteria are met.

Why this matters

A sprain return plan emphasizes stability, balance, and direction change. An Achilles plan emphasizes graded force and repeated-load tolerance. An impingement plan emphasizes symptom-free range and the cause of end-range compression. The same calendar cannot safely govern all three.

8 Reducing recurrence

No single stretch, shoe, or screening test prevents every dance injury. The most useful prevention system combines load management, technique, physical capacity, recovery, and early communication.[9, 10]

1. **Track meaningful load changes.** New pointe work, more jumps, longer rehearsals, harder flooring, a role change, a growth spurt, and added cross-training can all increase tissue demand.
2. **Build capacity outside choreography.** Strength, balance, landing control, trunk control, and gradual exposure give tissues a larger margin before fatigue changes technique.
3. **Use available range rather than forcing an ideal.** Turnout, extension, pointe range, and back extension should come from the joints that possess that motion, with control.
4. **Recover enough to adapt.** Sleep, rest days, and regular meals and snacks support repair. Recurrent bone-stress injuries, persistent fatigue, declining performance, delayed or disrupted menstrual function, or other signs of under-fuelling deserve confidential medical and nutrition support.[11, 12]
5. **Report early.** A small, repeatable symptom is easier to modify than a pattern that has already changed walking, class technique, or sleep.

9 Bring this information to an assessment

Exact location	_____
Date and mechanism of onset	_____
Sudden or gradual	_____
Dance movements that provoke it	_____
Walking, stairs, sleep, or rest symptoms	_____
Swelling, bruising, clicking, locking, weakness, numbness	_____
Recent change in class, rehearsal, pointe, jumps, floorwork, lifts, or cross-training	_____
What improves it; what worsens it the next morning	_____
Prior injury to the same area	_____

Key idea

Bring shoes or equipment associated with the symptoms when useful, and bring a short video only if recording was safe and the movement did not require provoking a potentially serious injury again.

10 Evidence scope and limitations

This guide prioritizes dance-medicine reviews, pediatric and sports-medicine guidance, clinical practice guidelines, and authoritative professional resources. Research on dancers is uneven across genres and body regions; evidence from related weight-bearing or artistic sports is used only where the mechanical demand is clearly similar. Individual diagnosis, imaging, treatment, and return restrictions belong to a qualified clinician who can examine the dancer.

Key idea

Medical review date: July 2026. Suggested review cycle: every two years, or sooner when a major guideline changes. Kinesphere Lab should obtain review by a physician or physical therapist with dance-medicine experience before studio-wide clinical distribution.

Selected evidence and guidance

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