

Heat, Ice and Compression

When and How to Use Them

These are simple but widely misused tools. Understanding when each is appropriate helps you use them confidently and avoid making things worse. None of them replace movement and rehabilitation — they are adjuncts that, used correctly, can make your recovery more comfortable.

1 Ice (Cryotherapy)

What it does: Ice reduces nerve conduction speed (numbing the area), causes local vasoconstriction, and may help limit acute swelling in the first hours after injury.

How to use: Apply for 10–15 minutes, always with a cloth barrier between the ice and your skin. Never apply ice directly to bare skin.

USE — Ice works well for:	AVOID Ice when:
Acute injuries (first 48–72 hours post-injury)	Chronic stiffness or long-standing tightness
Post-exercise swelling or flare-up after activity	Poor circulation or Raynaud's phenomenon
Acute flare-up of an inflammatory condition	Open wounds, skin conditions, or reduced skin sensation

2 Heat (Thermotherapy)

What it does: Heat increases local blood flow, relaxes muscle tension, and reduces stiffness in tissues. It is best used before activity when joints feel stiff, or to ease chronic muscle tension.

How to use: Apply for 15–20 minutes. Never fall asleep with a heat pack on. Do not apply heat over an acutely swollen or inflamed area.

USE — Heat works well for:	AVOID Heat when:
Chronic stiffness and long-standing muscle tightness	Acute injury or fresh trauma (first 48–72 hours)
Pre-exercise warm-up for stiff joints	Active inflammation or visible swelling
Muscle spasm and generalised tension	Open skin, poor sensation, or during sleep

3 Compression

What it does: Compression limits oedema (fluid build-up), provides proprioceptive feedback (helping your body sense position), and supports soft tissue during the early stages of healing.

Types of Compression

Compression bandage — Elastic wrap applied figure-of-eight from distal to proximal.

Tubular bandage — Seamless sleeve for limbs; useful for oedema management.

Compression sock / sleeve — Graduated compression; suited to ongoing management of ankle and leg swelling.

How to apply: The bandage should be firm but not tight — you should be able to slide a finger underneath it comfortably. Remove immediately if you notice numbness, tingling, skin colour change, or increased pain distal to the wrap.

Key point: Compression is not immobilisation. Keep moving gently within your range. Rest combined with compression slows recovery; movement with compression accelerates it.

4 Contrast Therapy

Contrast therapy alternates between heat and cold exposure, typically in cycles of 3–4 minutes each. There is some evidence supporting its use for post-exercise recovery in athletes — for example, reducing perceived muscle soreness after training. However, evidence for its use in rehabilitation of acute or chronic injuries is limited.

Use contrast therapy cautiously, and only after the acute phase (beyond 72 hours post-injury). Do not use it as a substitute for guided rehabilitation. Discuss with your clinician before starting.

5 Quick Reference and Key Takeaways

Situation	Best Choice	Duration
Acute sprain (first 48–72 hrs)	Ice + Compression	Ice 10–15 min; compression continuously
Chronic stiffness (longstanding)	Heat	15–20 min before activity
Post-exercise ache	Ice or rest; contrast if athlete	10–15 min; contrast 3–4 min alternating
Muscle spasm	Heat	15–20 min; gentle movement during/after
Active flare-up (inflamed joint)	Ice + Compression	Ice 10–15 min; reassess within 48 hrs
Pre-activity warm-up (stiff joint)	Heat	10–15 min immediately before activity

KEY TAKEAWAY 1

Match the tool to the stage of injury. Ice for the acute phase (first 48–72 hours), heat for chronic stiffness and muscle tension, compression throughout for swelling control. Using heat on an acutely inflamed joint, or ice on a stiff chronic problem, may make things worse.

KEY TAKEAWAY 2

These tools manage symptoms — they do not fix the cause. Ice, heat, and compression can make you more comfortable so you can move and rehabilitate effectively. They are most valuable when combined with guided exercise and movement. If symptoms persist or worsen, consult your clinician.