

Resetting your body through controlled Cooling Technology.

From ice packs to cryotherapy, controlled cooling has been used for decades in medicine and sports science to reduce pain, inflammation, and metabolic stress. Cooling technology takes this a step further. Instead of extreme or uncontrolled exposure, it delivers precisely regulated cooling to influence how your tissues, nerves, and circulation behave, making it a powerful tool for recovery and skin health.



HOW DOES IT WORK?

Cooling modulates how tissues and nerves behave under stress. Localised cooling devices range from 10–25°C, and depending on the application, some systems go even lower.

Unlike energy-based therapies, cooling doesn't rely on frequency, but through thermal gradients and how cells respond to temperature change. Cooling directly affects sensory nerve fibers (A-delta and C fibers), altering how pain and temperature signals are transmitted to the brain.

Physiologically, Cooling Technology:

- Causes vasoconstriction (narrowing of blood vessels), reducing blood flow to the area (and can trigger reactive vasodilation afterward, improving circulation)
- Slows cellular metabolism, limiting inflammatory processes
- Reduces nerve conduction velocity, which decreases pain perception

Essentially, it creates the conditions where excess damage is limited and recovery can proceed more efficiently.

Benefits and Applications

As cooling acts on inflammation, circulation, and nerve signaling, its applications are wide:

- Decreases nerve signaling and sensitivity
- Limits swelling and tissue damage
- Reduces metabolic stress post-exercise
- Reduces redness and irritation of skin
- Post-treatment recovery, commonly used after aesthetic or thermal procedure

At a biological level, cooling is associated with:

- Reduced inflammatory mediator release
- Decreased oxidative stress
- Slower enzymatic activity during acute injury

IS IT SAFE?

Cooling therapy is widely used in clinical and sports settings and has a strong safety profile when applied in controlled settings. However, since it alters circulation and nerve activity, proper use matters. It should be used cautiously in individuals with circulatory disorders (e.g., Raynaud's phenomenon), cold sensitivity, cryoglobulinemia and certain nerve conditions.

WHAT HAPPENS DURING A SESSION?

A device is placed on the target area, as the temperature gradually decreases to a controlled level. You'll feel cooling, followed by numbness or reduced sensation (which is normal, that's how you know it's working). Sessions usually last 10–30 minutes. After the session, individuals have reported a feeling of reduced tension or discomfort.

CONTROLLED RECOVERY

Cooling therapy is about precision. By carefully controlling temperature, it allows your body to respond in a way that limits stress while supporting recovery and balance.

Light Tree Technology elevates the experience. Instead of using cooling in isolation, it's often combined with complementary modalities to support circulation, recovery, and overall tissue function more effectively. Recovery isn't just about doing less, it's about guiding your body back to balance in the most efficient way possible.

References:

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