

# Sound-Based Recovery for Elite Athletes

The science of sound meets athletic performance.



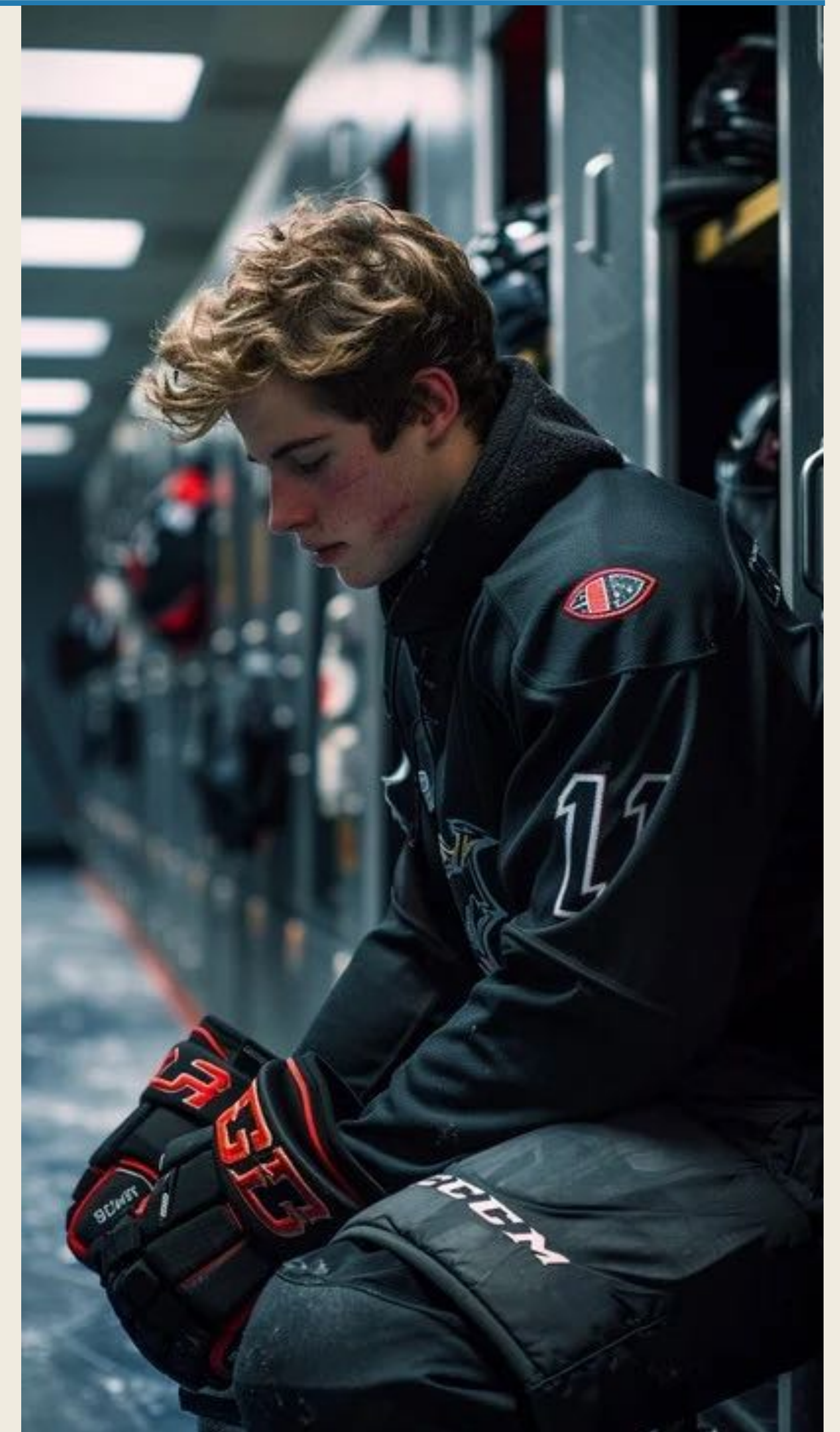
# What is 'Therapeutic Sound Frequency'?

- **Frequency-Based Biology:** Grounded in science that human physiological systems operate via measurable vibrations, allowing for targeted intervention through acoustic frequencies.
- **Acoustic & Vibrotactile Stimulation:** Sound is mechanical vibration. Research demonstrates that certain acoustic and vibratory interventions can influence autonomic activity, HRV, perceived stress and relaxation.
- **Complex Acoustic Resonance:** Acoustic instruments produce rich combinations of fundamental tones, harmonics, overtones and physical vibration that provide multidimensional auditory stimulation.



# Performance Requires a Pulse

- We ask athletes to perform at superhuman levels, but their biology remains fundamentally **human**.
- To sustain optimal performance, **the nervous system demands intentional periods to rest, restore, and recover**.
- Professional athletes are amazing, but **sustainability is born in the moments of restoration**. Are we giving them the tools to recover as hard as they train?



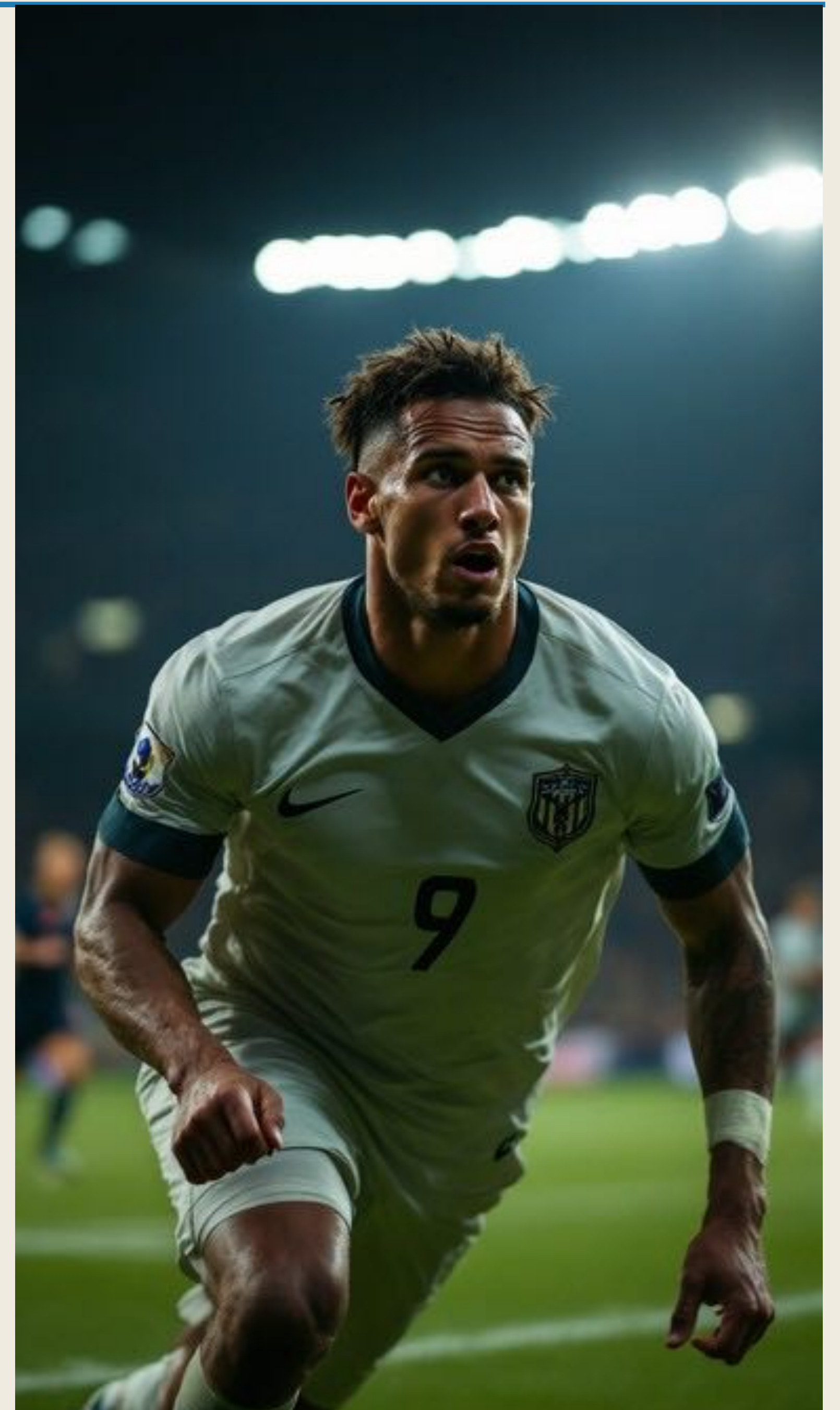
# Why Does It Matter for Teams?

- **REDUCES** pre-game anxiety and fight-or-flight activation.
- **SUPPORTS** post-game down-regulation, relaxation and sleep readiness.
- **PROMOTES** a shared recovery experience that may support team connection and cohesion.
- **COMPLIMENTS** existing recovery protocols with a low-tech approach.



# Recovery Protocol Samples:

- **The Post-Game Downshift:** A 20–30 minute Sound Journey following competition, designed to support autonomic down-regulation and transition from performance demand toward recovery.
- **The Travel/Sleep Bridge:** A relaxation-focused session for away games and travel, designed to reduce arousal and support the transition toward restorative sleep.
- **Team Recovery Sessions:** Group Sound Journeys incorporated into recovery blocks, providing athletes a shared period of intentional nervous-system down-regulation.

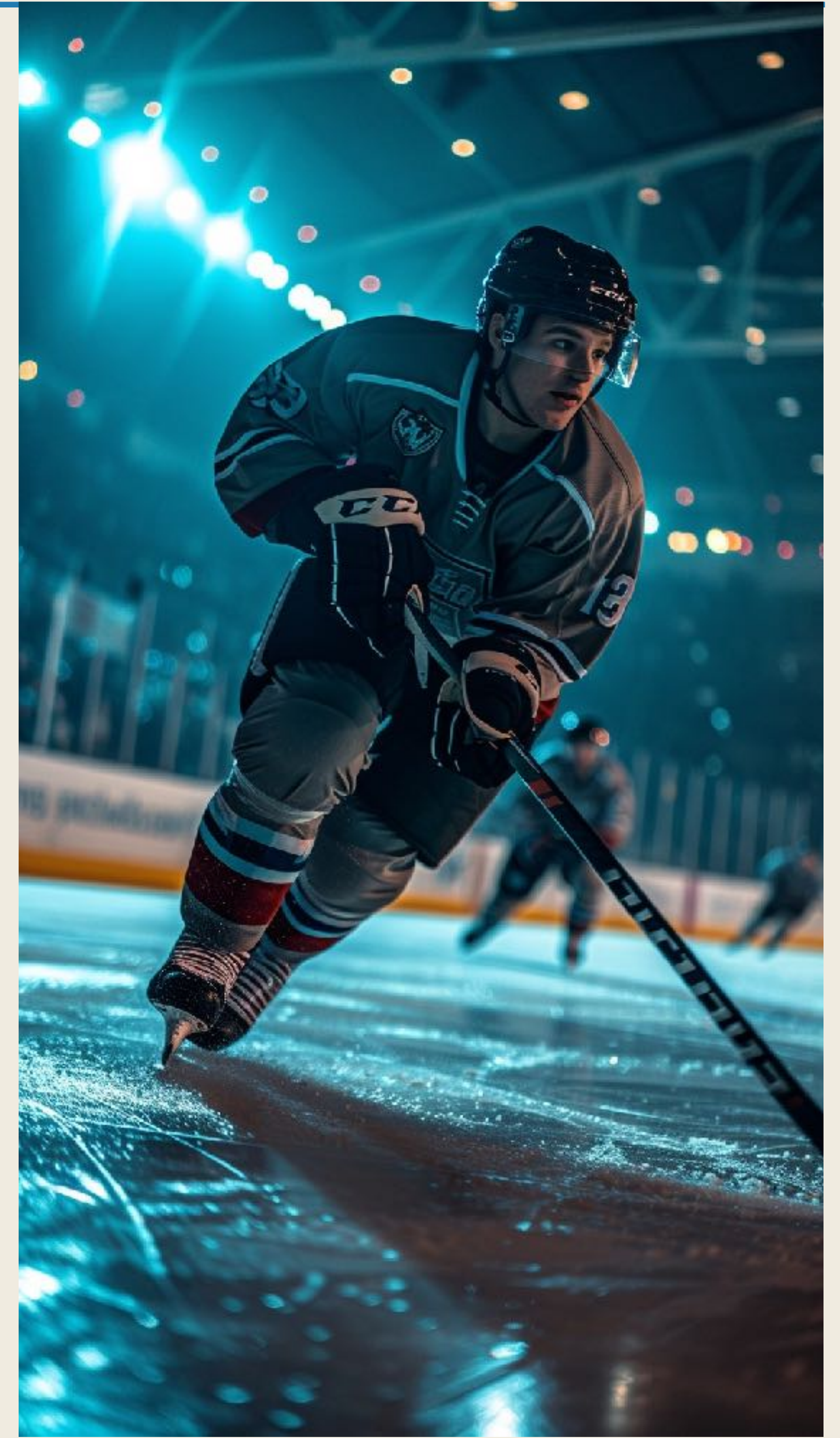


# A Modern Tool, Rooted in Ancient Practice...

- Indigenous acoustic instruments—including bowls, gongs, drums and flutes—produce complex combinations of tone, harmonic content, rhythm and physical vibration.
- Emerging research demonstrates that acoustic and vibroacoustic stimulation can influence brain activity, autonomic regulation and perceived relaxation.

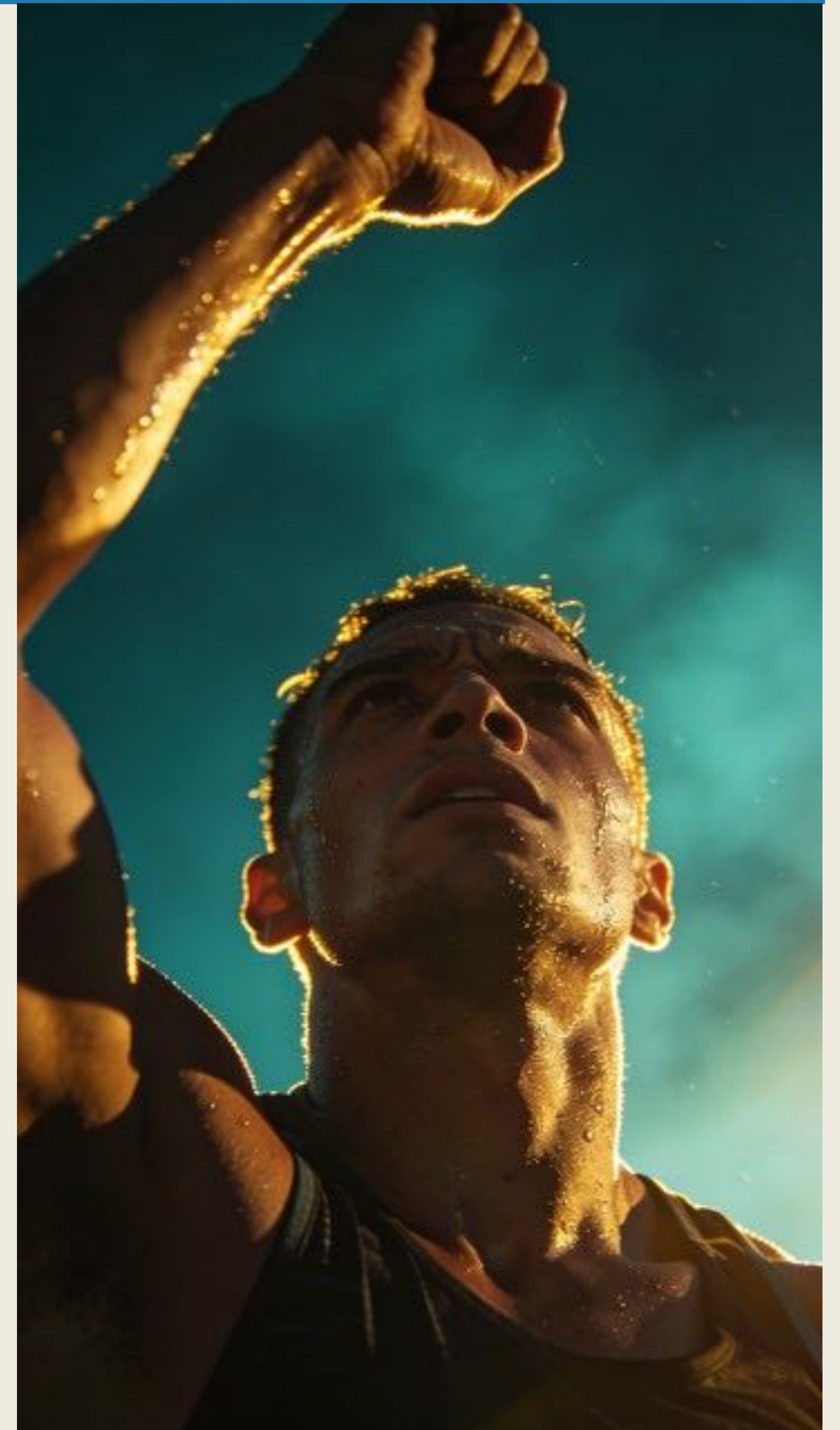
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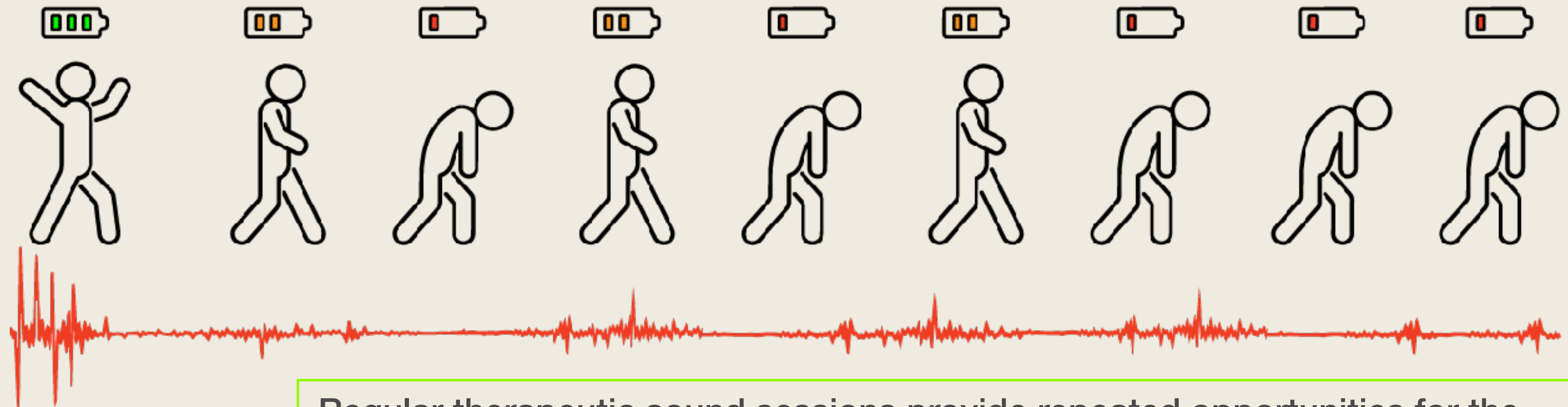
# Quick Science Overview pt. 1

- **Repeated high-performance demands increase autonomic load.** Without adequate recovery, sustained stress can contribute to autonomic imbalance and interfere with optimal physical and psychological recovery.
- **The autonomic nervous system,** HPA stress axis and immune system are interconnected—meaning prolonged stress affects more than simply how an athlete feels mentally.
- As a result the bodies **NATURAL recovery system isn't allowed to replenish, recover, restore** and at times, fully develop the bodies full capacity of it normal potential.



# Quick Science Overview pt. 2

The human body naturally adapts to its environment. Without adequate **natural recovery**, however, the nervous system can remain in a prolonged state of survival—commonly known as **fight or flight**.



Regular therapeutic sound sessions provide repeated opportunities for the nervous system to enter a restorative state, potentially supporting a more consistent recovery practice between periods of physical and mental demand.

Conversely, therapeutic sound and frequency can help create the conditions for the nervous system to move toward **coherence and a parasympathetic “rest and recover” state**. As the body settles, it can redirect energy away from sustained stress responses and toward its natural processes of **recovery, regulation, restoration, and physical replenishment**.



# Proven Results

- **Elite Sport Adaption:** The 2025 U.S. Open player recovery suite incorporated binaural audio and vibroacoustic technology as part of a broader nervous-system recovery environment.
  - <https://www.vanityfair.com/news/story/inside-elite-athletes-recovery-tricks>
- **Peer-Reviewed Studies:** 62 participants reported significant reductions in tension, anger, fatigue and depressed mood following a singing-bowl sound meditation.
  - <https://pubmed.ncbi.nlm.nih.gov/27694559/>
- **EEG Research:** A 2023 study found measurable brain-wave synchronization to the 6.68-Hz beat frequency produced by a singing bowl—a frequency within the theta range associated with meditative states.
  - <https://pubmed.ncbi.nlm.nih.gov/37372766/>



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# Summary

- **Sound-based recovery has moved beyond theory. A growing body of clinical and physiological research demonstrates measurable effects on anxiety, stress, HRV, relaxation and brain activity.**
- **The opportunity now is to explore how these evidence-aligned principles can be responsibly applied within high-performance athletic recovery.**

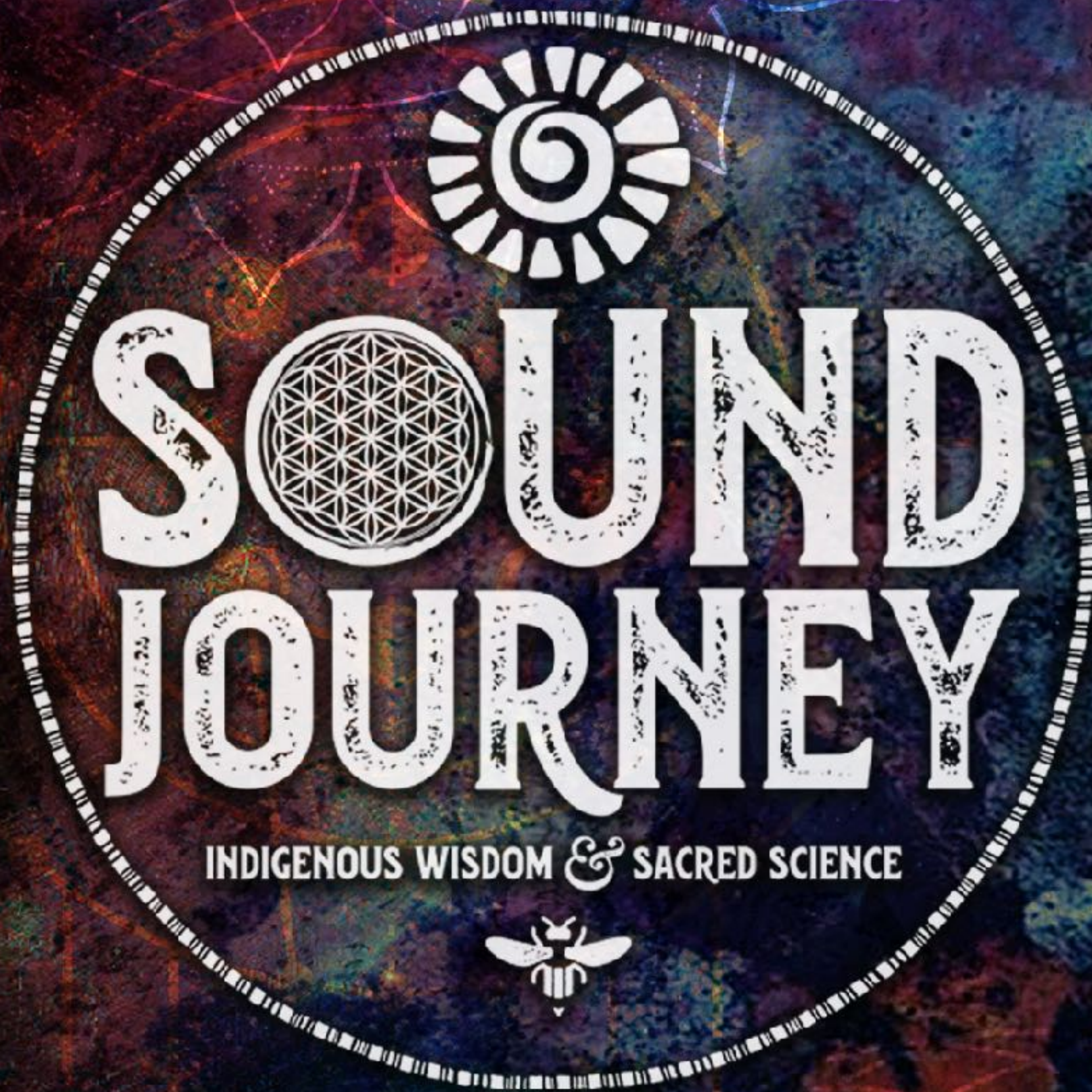


# Gene Jimenez

## Certified Therapeutic Sound Practitioner

- **The Athlete's Perspective:** Former NCAA collegiate athlete. Understands the "grind" of elite performance and the physiological cost of high-stakes competition.
- **Indigenous Heritage:** Grounded in ancestral traditions, utilizing acoustic instruments crafted from natural materials—wood, skin and metal—whose use in ceremonial and restorative practices long predates modern therapeutic sound technology.
- **Certified Expertise:** A Certified Therapeutic Sound Practitioner with a science-based education in nervous system regulation and frequency therapy.
- **Modern Application:** *"I don't just 'play music'; I produce Sound Journeys. My approach blends indigenous wisdom with modern biometric data to support elite recovery through parasympathetic downshifting."*





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CERT. THERAPEUTIC SOUND PRACTITIONER

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## **Rio-Alamos et al., 2023 — Randomized controlled trial**

Tibetan singing bowls vs. progressive muscle relaxation/control; anxiety + HRV.

<https://pubmed.ncbi.nlm.nih.gov/36826208/>

## **Goldsby et al., 2017 — Sound meditation**

62 participants; significant reductions in tension, anger, fatigue and depressed mood.

<https://pubmed.ncbi.nlm.nih.gov/27694559/>

## **Lin et al., 2025 — Systematic review**

14 quantitative studies; stress, anxiety, HRV, EEG and well-being findings, with appropriate cautions about evidence quality.

<https://pubmed.ncbi.nlm.nih.gov/40868617/>

## **Kim & Choi, 2023 — EEG synchronization**

Measured synchronization of brain activity to a singing-bowl beat frequency in the theta range.

<https://pubmed.ncbi.nlm.nih.gov/37372766/>

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