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The Mind Body Benefits of Contrast Training



It's seemingly everywhere; the videos of people jumping into a cold plunge after melting their mind in a 200° sauna. Sweaty skin, shivering bodies, and hats that even the most genetically blessed can't pull off gracefully, contrast therapy is a ritual that's here to stay.

I've been running a contrast routine myself that's simple, yet intense: 15 minutes in a 190° sauna, followed by a 1-minute cold plunge, repeated three times. The first round wakes me up, the second pushes my limits, and the third resets everything; physically and mentally. What started as a recovery experiment during my Ironman days turned into a daily non-negotiable for life. This practice has helped dial in my focus, increased my stress tolerance and adaptability, and decreased systemic inflammation.

The rhythm of heat and cold teaches you to control your body under pressure, a lesson that carries over into everything from lifting, working, leading and living.

What I've personally noticed:

- Sharper morning focus and energy
- Faster recovery and reduced soreness
- Stabilized moods and calmer presence

Don't just take my word for it.. Let's jump into science-backed reasonings.

Physiological Response

Heat causes vasodilation (vessels open), boosting blood flow and oxygen delivery; cold causes vasoconstriction (vessels tighten), helping move metabolic by-products out of tissue. Alternating them acts like a "pump" for blood and lymph nodes. Reviews in Mayo Clinic Proceedings tie regular sauna use with improved vascular function and lower risk of hypertension and cardiovascular disease; while listing plausible mechanisms such as heat-shock protein induction and endothelial benefits.

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Beyond the immediate feel-good, the strongest long-term evidence comes from Finland. In a 20-year study, more frequent sauna use (4–7x/week) was associated with significantly lower risks of sudden cardiac death, fatal coronary heart disease, fatal cardiovascular disease, and all-cause mortality, with dose-response patterns by frequency and duration. While observational (not proof of causation), it reinforces sauna as a heart-healthy habit when used appropriately. Harvard Health has summarized these findings for the public.

For cold therapy, classic human studies show rapid norepinephrine surges during cold-water immersion, rising within minutes and peaking during sustained exposure, helping explain the alert, focused feeling many people report after a plunge.

For the “contrast” (alternating between hot and cold in a single session), studies found significantly greater reductions in muscle soreness from 6 to 96 hours post-exercise versus passive rest. A 2024 scoping review further reports benefits across soreness, swelling, range of motion, and function in musculoskeletal contexts.

Psychological Response

Cold exposure doesn't just wake you up; it shifts neurochemistry. Human data show cold immersion elevates norepinephrine and related stress-response hormones that are tied to vigilance and mood. Newer work also tracks changes in β -endorphins and affect after single cold-water sessions. Together with the sauna's endorphin-rich relaxation, alternating stress and recovery trains the nervous system to stay composed under discomfort, a skill that carries into work, training, and sleep.

Cold exposure triggers a 2–3x increase in norepinephrine (a key neurotransmitter for focus, vigilance, and motivation) within minutes, and that spike can last for hours post-exposure. A 2021 Nature Scientific Reports study demonstrated sustained norepinephrine release and elevated dopamine levels after short-duration cold immersion, which directly correlate to increased mood and motivation.

Beginner's, Evidence-Aligned Protocol

If you're new, consistency beats bravado. Start with a short, alternating sequence that mirrors the studies yet respects comfort:

- Heat: 10-12 minutes (sauna ~150–170°F / 65–77°C or a hot shower/steam).
- Cold: 30–60 seconds ($\leq 59^\circ\text{F}$ / $\leq 15^\circ\text{C}$).
- Rounds: 2–3, end on cold for alertness, end on hot to aid in digestion and peak organ functionality. *Reminder, your abdomen doesn't like to be cold all day as this can significantly slow down bodily processes. Keep your belly warm!
- Frequency: 3–5x/week; progress duration gradually if you feel well.
- Recovery goal: Use contrast on hard training days; for pure relaxation, a single longer sauna can suffice.

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Safety: Hydrate; avoid alcohol; exit if light-headed. People with unstable cardiovascular disease, low blood pressure, pregnancy, or other medical conditions should ask their clinician first (Harvard Health).

Get hot, and cold (or both) to boost body and mind performance.

Citations:

- Bieuzen et al., PLOS ONE, 2013.
- Laukkanen et al., JAMA Intern Med., 2015.
- Laukkanen et al., Mayo Clin Proc., 2018.