




Cold water immersion therapy

(ICE-BATH)

BY

SHERWAN SABER KHALID

CIHAN UNIVERSITY

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- ▶ After a workout, your body needs to "repair" itself to prepare for the next training session. It does so with the help of blood vessels that bring oxygen to your muscle tissue while removing waste products of exercise — the most common being lactic acid. Too much lactic acid build-up can cause your muscles to function poorly and will often lead to fatigue.

Ice-bath Recovery

- ▶ Recovery is a critical part of training as it is used to minimize the risk of overtraining and injury, whilst promoting physical and psychological readiness. This becomes particularly important during intense training or competition periods to sustain an optimal state of performance.



- ▶ Understanding its importance has led to the use and development of many recovery techniques such as: massage therapy, foam rolling, whole-body vibration,, and water immersion therapy (including: cold water, warm water, and contrast bathing).



What is Cold Water Immersion?

- ▶ Cold water immersion (CWI), otherwise known as ice-baths, plunges pools and cold water therapy is a recovery process involving the immersion of the body into cold water ($\leq 15^{\circ}\text{C}/59^{\circ}\text{F}$) immediately after exercise in an attempt to enhance the recovery process. Despite being shown to only have a small impact on recovery, CWI has proven to be an effective method for enhancing recovery.



- ▶ For its ability to improve recovery time and reduce the delayed onset of muscle soreness (DOMS), water immersion therapy has become a popular recovery method amongst sport scientists. The term water immersion therapy generically refers to all modes of water-based recovery protocols – namely cold-water immersion, warm-water immersion, and contrast bathing (alternate warm and cold immersion).



It is commonly believed that water immersion therapy can:

- ▶ Decrease the perception of pain associated with muscular soreness
- ▶ Decrease the perception of fatigue
- ▶ Alter localized blood flow
- ▶ Alter localized tissue and core temperature
- ▶ Alter heart rate
- ▶ Reduce muscle spasms
- ▶ Reduce tissue inflammation
- ▶ Reduce muscle damage
- ▶ Improve range of motion

