

Cryotherapy: A cool way to recover after exercise

 By [Nicci Botha](#)

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Although often neglected, the important role of recovery in an athletic training regimen is becoming increasingly recognised.



Refuel, repair, rehydrate and relax are the four Rs of recovery, said Professor Mike Lambert of the Division of Exercise Science and Sports Medicine (ESSM). There's a lot of interest in investigating techniques of accelerating the repair phase of the process in readiness for the next exercise phase, especially for high-performance athletes. One such method which rates high on the recovery efficacy list is cold immersion.

The ice bath has long held sway as the treatment of choice, but now the Sports Science Institute of South Africa (Ssisa) will be testing the science behind whole-body cryotherapy, favoured by athletes such as Floyd Mayweather and Cristiano Ronaldo, at its facilities in Newlands, Cape Town.

The [Cryozone](#) system is a purpose-built chamber where the air inside can be cooled to as low as -160°C using liquid nitrogen gas. The body's physiological response to the extreme cold is to protect a core temperature of $36-37^{\circ}\text{C}$. As a result, vasoconstriction directs blood supply away from any damaged or tired tissue, effectively shutting down the inflammation process leading to swelling or bruising around an injury.

Among the benefits listed for the treatment are:

- faster recovery from fatigue
- reduced muscle pain and inflammation
- increased energy levels
- reduced injury recovery time
- improved immunity
- increased muscle strength
- improved blood circulation
- improved sleep patterns

The experience

We did get the opportunity to test the technology. From the outside, the chamber resembles a shipping container, on the inside – a sauna room. Kitted out in shorts and a vest, a paper breathing mask, mittens, a headband to protect your ears, long socks and Croc-like clogs, you step into an antechamber, cooled to around -70°C, for 30 seconds to acclimatise. Then, you step into a second room for the main event - two-and-a-half minutes at -120°C.

What does it feel like? Obviously very cold. Enough to make your skin redden, tingle and burn. It was more uncomfortable than painful, but I can see why it would freak some people out, particularly if you're claustrophobic.

Did it work? Hard to say after one session. But my pesky piriformis, which usually flares up at around the five kilometres mark, was very well behaved on a run two days later.

ABOUT NICCI BOTHA

Nicci Botha has been wordsmithing for more than 20 years, covering just about every subject under the sun and then some. She's strung together words on sustainable development, maritime matters, mining, marketing, medical, lifestyle... and that elixir of life - chocolate. Nicci has worked for local and international media houses including Primedia, Caxton, Lloyd's and Reuters. Her new passion is digital media.

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