Cryotherapy - surprisingly tolerable

What is cryotherapy and why has it been in the news this week?

Read the first part of the article and check your ideas.

The death of a spa worker in a deep-freeze chamber in Nevada earlier this week has seen the flourishing cryotherapy industry subject to intense international scrutiny. The treatment – in which patients are subjected to temperatures as low as minus 140°C – has enjoyed a recent upsurge in popularity driven by sports stars and celebrities including Mo Farah, Cristiano Ronaldo and Demi Moore. But the discovery of 24-year-old Chelsea Ake-Salvacion frozen “rock solid” – after she entered a chamber unattended after work – has raised question marks over the procedure’s safety. Developed in Japan in the 1970s to treat rheumatism and other conditions, cryotherapy is now sold on a host of health benefits – from healing surgical injuries to slowing down the ageing process.

Have you heard of cryotherapy before?

What do you think happens to the body when you lower its temperature so much? Read the second part of the article and check your ideas.

There are only two permanent chambers in the UK, one at a medical facility in the Midlands and another at the BMI Healthcare Centre in Hendon. It is here that I trial the therapy, exposing my bare flesh to temperatures around minus 84°C for a full three minutes. Andy Streed, 34, physiotherapy lead at the BMI centre, compares the treatment to applying an icepack to an injury – except, of course, the whole body is plunged into extreme cold at once. “The body basically goes into survival mode and concentrates on saving the organs,” he explains. “This means the core temperature warms up which leads to the blood picking up more nutrients and the muscle tissues kick-starting their restorative processes.”

Read the next part of the article and summarise the journalist’s experience of cryotherapy in your own words.
The chamber is about the size of a shower cubicle and has a fine layer of snow-like frozen vapour covering the floor. On their first visit, patients spend three minutes in the cryotherapy, eventually working their way up to six-minute exposures. If they can bear it. One patient, confronted by the cold as the door opened, turned and walked out. A cloud of frosted air does indeed billow forth from the opened chamber like dry ice.

Wearing a hat, face mask, gloves, shorts, socks and Crocs, I step inside. An initial jolt is quickly followed by surprise at how tolerable the experience is – considering my half-naked body is exposed to a temperature just a few degrees shy of the lowest ever recorded in Antarctica.

When the three minutes are up, my fingers and toes are beginning to feel numb and my skin tingles. But I feel no real discomfort. I can barely believe it was as cold as the computer display says it was.

Professor Clyde Williams, emeritus professor of sports science at Loughborough University, said that while the effectiveness of cryotherapy is not “clearly understood” its positive results when used immediately after sport probably resulted from “constricting blood vessels ... preventing the further leakage of proteins out of the muscle and into the circulation”.

But is it safe? Streed says he has no doubt that it is. He has never had a patient have an adverse reaction and only once cut a treatment short due to excessive shivering. “First off, we always do a health check and look for past conditions that would rule you out,” he says. “We talk the patient through what to expect and explain they don’t need to stay in.”

In the case of Ake-Salvacion, there is speculation that the liquid nitrogen used in the chamber may have debilitated her. But BMI’s facility uses a different cooling technique – reducing the air temperature with fans. Streed’s confidence in the safety of the treatment is supported by research. The main dangers associated with being subjected to extreme cold are hypothermia and frostbite. The threat of both is mitigated by the completely dry conditions in the cryotherapy chamber and the short period of exposure.

How safe do you think the treatment is?
Read the final part of the article and find out what the experts say.

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Would you be willing to try cryotherapy? Why / Why not? Do you know of any other unusual therapies?

Complete these extracts from the article with the correct prepositions:

1. ...from healing surgical injuries to slowing _____________ the ageing process.
2. This means the core temperature warms _____ which leads to the blood picking _____ more nutrients and the muscle tissues kick-starting their restorative processes.
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Complete these sentences with the correct form of the phrasal verbs above:

1. "What are you doing?" "I'm my glasses. I can't find them anywhere."
2. Could you me the application process? I really don't understand it.
3. His criminal record him of the job selection process.
4. Local councils put speed bumps on roads to traffic.
5. We all a nasty virus when we were on holiday.
6. Do you want me to this pasta for dinner?

What is the meaning of the suffix in this extract from the article?

...and has a fine layer of snow-like frozen vapour covering the floor.

What other suffixes do you know? What do these suffixes mean?

- conscious - mad - ful - ridden - ish - free - less

Match the suffixes to these explanations:

very enthusiastic about
concerned about, aware of
having a particular quality
without, not having
having the qualities or characteristics of
to denote an approximate age, time, etc.; quite
not containing
infested or afflicted with

Complete these sentences using the suffixes above. If you need help, use the words below.

1. Bob never eats sugar or anything with saturated fat. He is very .
2. Jim has been to every match home and away for fifty years. He is .
3. The stray dog had distemper, ulcers and other illnesses. It was .
4. We chose a very quiet destination for our holiday. It was very .
5. "What time should we meet?" "Around midday." "OK, I will see you at .
6. This new phone doesn’t work at all. It’s .
Complete these extracts from the article with the correct prepositions:
1 down
2 up / up
3 for / out / through

Complete these sentences with the correct form of the phrasal verbs above:
1 looking for
2 talk (me) through
3 ruled (him) out
4 slow down
5 picked up
6 warm up

What is the meaning of the suffix in this extract from the article?
- like = similar to, characteristic of

Match the suffixes to these explanations:
mad very enthusiastic about
conscious concerned about, aware of
ful having a particular quality
less without, not having
ish having the qualities or characteristics of; to denote an approximate age, time, etc.; quite
free not containing
ridden infested or afflicted with

Complete these sentences using the suffixes above. If you need help, use the words below.
1 health-conscious
2 football-mad
3 disease-ridden
4 peaceful
5 twelve-ish
6 useless