## Cryotherapy relieves pain of incurable fibromyalgia

Digest authored by Sparrho

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Whole-body cryotherapy (WBC) has been shown to reduce pain and muscle inflammation after a heavy workout but did you also know that it can provide relief in conditions such as rheumatoid arthritis and fibromyalgia?

In 10 seconds? Recent clinical trials have shown that cryotherapy can reduce

musculoskeletal pain in people who suffer from incurable fibromyalgia and rheumatoid

arthritis, and thus improve patients' quality of life. (Read the science)



**Fibro... what?** Fibromyalgia, also called fibromyalgia syndrome (FMS), is a chronic disease that causes pain all over the body and other symptoms like fatigue, bad sleep, muscle stiffness, trouble with concentration and headaches. FMS has also been linked to irritable bowel syndrome (IBS), a digestive condition that is linked to stomach pain and bloating. Unfortunately, the exact cause remains a mystery. (<u>Read the paper</u>)

**So what is the discovery?** Researchers have found that WBC can alleviate musculoskeletal pain and fatigue plaguing fibromyalgia patients, significantly improving their everyday experience. This is interesting because there are many available therapies - for example tai chi, yoga, meditation, mindfulness and acupuncture - but scientists still argue about their efficacy and the <u>optimal management</u> of FMS. This means that we have now a potential novel therapy for this very complicated disease. (<u>Find out more</u>)

**How did they discover the effects of cryotherapy?** In a randomised clinical trial with 24 fibromyalgia patients, 11 people underwent WBC, in addition to physiotherapy for 10 sessions. The other 13 participants were put in the control group. One month later, the researchers found that patients in the WBC group reported significantly improved quality of life than the control group. The fact that the positive effects were apparent after a month was also encouraging. (Learn more)

**How did cryotherapy impact the patients?** We still have no answer about the exact mechanism, but we know that muscle activity and inflammation induce oxidation, which has a damaging effect on our cells. Cryotherapy provides painkilling effects by decreasing our skin temperature, which reduces inflammation and in turn cuts back the production of oxidants. Additionally, studies have shown that WBC can reduce muscle and joint pain by triggering thermal stress that will promote blood vessel constriction and slow nerve signals, resulting in pain relief. (<u>Read more</u>)

**So what can we expect in the future?** Several studies have proven the efficacy of WBC, leading scientists to suggest it as a standardised treatment of FMS and rheumatoid arthritis. Cryotherapy should therefore be further investigated as a therapeutic option. However, in order to conduct studies, researchers need to develop a more standardised methodology, including establishing a benchmark for the temperature and frequency of cryo-sessions. (Read more)

Why it is important to work on adjunct therapies

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Fibromyalgia, as one of the most common chronic pain conditions, affects an estimated 3-6% of the world population and is prevalent in women: 75-90% of FMS patients are women!

Several drugs have been approved to treat fibromyalgia, however, each drug has its own side effects. One of the most commonly prescribed treatments of pain in fibromyalgia is a class of drugs called <u>nonsteroidal anti-inflammatory drugs (NSAIDs)</u>.

However, <u>a previous study</u> has shown that NSAIDs have a well-known toxicity, representing a major public health concern.



## Dr Simona Gulbinaitė

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(Psst, <u>Simona</u> distilled <u>17 research papers</u> to save you 998.5 min)