

The Cold Truth About Cold Plunging

Written by Gina Vitale | July 1, 2026

Health trends come and go. These days, with social media at our fingertips, it seems there's a constant flow of so-called health information. Unfortunately, you may be following wellness influencers who offer tips to "optimize" health, which are misleading or loosely based on misinterpreted data.

The current cultural phenomenon involving backyard tubs and viral videos of shivering influencers promises that cold plunges are a "miracle cure" for everything from chronic stress to weight loss. Globally, the cold plunge industry is booming, but your fitness expectations could be fueled more by social media algorithms than actual clinical evidence.

So, how do you know if your newsfeed is giving factual results? We must look beyond social media trends to see what actual scientific data tells us about freezing yourself for health benefits. Cold plunging is a science-backed tool for specific physical and mental goals, but it is not a cure-all. We'll help you separate its biological facts from marketing myths.

What Are The Real, Science-Backed Benefits of Cold Plunging?

There is no doubt that cold plunging activates specific biological responses in your body; scientific studies have shown us that. When you plunge into cold water (typically below 59°F or 15°C), your body goes into survival mode, activating several well-documented physiological responses — measurable, normal body functions, such as heart rate and blood pressure. Basically, your body is reacting to a sudden stress increase or shock.

Biological Evidence

What's going on inside your body when you cold plunge?

- There is strong evidence that cold water immersion (CWI) helps muscle recovery and reduces soreness because it causes constriction of blood vessels (vasoconstriction), which **reduces swelling and inflammation**. Studies consistently show it helps reduce delayed onset muscle soreness (DOMS) after intense exercise.
- The cold slows down nerve conduction velocity (how fast signals travel along your nerves), effectively acting as a local anesthetic to **provide temporary pain relief**.
- Research shows that significant cold stress can trigger a prolonged surge of norepinephrine (up to ~530%) and dopamine (up to ~250%). These neuromodulators control certain brain functions, such as attention, memory, and

decision-making — explaining the intense **mental clarity and elevated mood** people experience afterward, which can last for hours.

- Regular cold exposure can help train your parasympathetic nervous system (including the vagus nerve) to calm down faster. This part of the nervous system helps manage functions like heart rate, breathing rate, and digestion. It may improve your body's **ability to handle stress over time** (improving heart rate variability, or HRV).

The measurable results of cold water immersion learned through scientific research offer short-term physical and mental health benefits. On the flip side, you've likely read a post or watched a reel providing significantly stretched truths or myths involving cold plunges. We'll highlight that next.

Debunking the Mainstream Myths

The cold plunge trend has turned a niche athletic recovery tool into a massive lifestyle phenomenon. Health hacking your way to a better you by jumping into a frozen lake... If it sounds too good to be true, it likely is.

The hype relies on marketing ploys to draw you toward whatever product or piece of content they're promoting. Typically, influencer messaging overreaches what the science says. These overhyped claims include:

- Myth 1: Cold plunging is a weight loss and metabolic miracle. While shivering activates brown fat (adipose tissue) and spikes metabolism temporarily, the actual net calorie burn of a 3-minute dip is negligible.
- Myth 2: It Boosts Muscle Growth After Weightlifting. Sports medicine research studies report that icing immediately after lifting blunts the exact natural inflammatory pathways required for muscle hypertrophy (growth). That burn you feel after resistance training is actually the signal your body uses to grow bigger muscles. So, if your primary goal is building massive muscle size, do not cold plunge immediately after lifting weights. You should wait at least 4 to 6 hours after a hypertrophy workout before plunging or do it on rest days.
- Myth 3: It Cures Systemic Inflammation and Illness. Clinical evidence shows cold plunging can actually raise stress and inflammatory markers immediately afterward, before they normalize, but does not show improvements in blood markers or immune-boosting factors. Cold plunging may make you *feel* better for a short time, but it doesn't make you immune to the common cold, and it is not a cure for illness.

An important item for you to remember is that while there may be *some* truth to what you're seeing online, one study result is not how scientists determine what works and what

doesn't. Evidence-based science combines multiple clinical trials, from numerous researchers, and tons of data; it's how experts develop new health protocols and exercise methods. So, if you follow "JoeGymBro" (totally made-up name) and he tells you his fitness idea that no one ever thought of before him, ask yourself if it seems logical.

Who Should Avoid Cold Plunging?

Since cold plunging has a few health benefits, does that mean everyone should try it? That's a hard no! Some folks should avoid immersing themselves in freezing water, since it could actually harm their health.

You should pass on the plunge if you have any of these health or medical conditions:

- People with cardiovascular issues: heart disease, high blood pressure (hypertension), arrhythmias.
- People with breathing issues: asthma, pulmonary disease, or recent respiratory infections.
- Individuals with Raynaud's phenomenon.
- Pregnant women.
- People with peripheral neuropathy or poor circulation.
- Individuals with low body fat may be at higher risk for hypothermia.
- Individuals with metabolic disorders such as hypothyroidism.
- People with genetic conditions who have difficulty regulating their body temperature, or have adverse effects from or a poor response to extreme cold.

Safety Warnings

Important safety advice to consider if you plan to jump into freezing water:

- Even healthy individuals can experience involuntary hyperventilation and cold shock drowning. Never cold plunge alone, or dive in headfirst.
- Always enter the water slowly and control your breathing.
- Cold plunge time should not exceed 10 minutes.
- Water temperature between 50°F and 59°F (10°C and 15°C) is safest.

Final Thoughts

While cold plunging offers some short-term health benefits, it is not a miracle cure and is not appropriate for everyone. Don't fall for exaggerated health claims. Do some digging on your own and find out where the newest trend originated. Always consider the source and listen to your body when deciding your health journey.

Resources

<https://pmc.ncbi.nlm.nih.gov/articles/PMC9953392/#sec5-biology-12-00211>

<https://pubmed.ncbi.nlm.nih.gov/39879231/>

<https://pmc.ncbi.nlm.nih.gov/articles/PMC9518606/#s0005>

<https://www.sciencedirect.com/science/article/abs/pii/S0306456524000755>

<https://www.tandfonline.com/doi/full/10.1080/22423982.2022.2111789#abstract>