

HUBERMAN

# COLD EXPOSURE PROTOCOL



TUNDRA

By triggering shivering, the aim of this protocol is to prompt the release of succinate from muscle tissue (1), which activates brown fat thermogenesis, leading to substantial increases in metabolism and fat loss (2).



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#### STEP1:

Set the water temperature at a level that induces shivering within 1-3 minutes of immersing yourself in cold water.



#### STEP2:

Submerge your body up to your shoulders and allow the shivering to occur without resistance.

In fact, you can even help trigger shivering by intentionally shivering at first.

Aim to achieve a shivering state and maintain it for 60 to 120 seconds.



#### STEP3:

After shivering for 60-120 seconds, step out of the tub and stand nearby without crossing your arms or drying off.

Shivering should continue for another 60-120 seconds outside the tub.



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#### STEP4:

When your shivering begins to slow down or stop, go back to the cold plunge and repeat step 2 and 3.



#### STEP5:

To maintain the fat-loss benefits induced by shivering, aim to perform 2-5 sets of cold plunging and exiting, with each plunge and exit counting as one set. However, avoid adapting too quickly to the cold as it may reduce the effectiveness of the shivering.

- (1) Accumulation of succinate controls activation of adipose tissue thermogenesis. Nature 2018 (7716):102-106.
- (2) Huberman Lab Podcast: https://www.youtube.com/AndrewHubermanLab

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