

Will your epinephrine auto injector still work if it gets frozen?

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If you are one of the millions of people in the U.S. who has a severe allergy and carries an epinephrine auto injector (EAI) you may have wondered if it will still work if it gets left in your car in winter and freezes. Turns out it will still work, according to new research being presented at the American College of Allergy, Asthma and Immunology (ACAAI) Annual Scientific Meeting.

"Since many people who live in [cold climates](#) use an EAI, we wanted to explore the effects of freezing on how an EAI functions," says Julie Brown, MD, abstract author. "Lead author and researcher Alex Cooper took 104 same-lot pairs of EAIs and froze one of each pair for 24 hours, while the other was kept at recommended temperatures as a control. Once the frozen devices were thawed, they and their controls were injected into meat. The meat and devices were weighed both before and after firing. The change in meat weight and device weight was similar between frozen-thawed devices and their controls, indicating that freezing did not affect how the EAIs functioned once they were thawed."

Allergists recommend using epinephrine as the first line of defense in treating anaphylaxis. The consequences for not using epinephrine when it is needed are much more severe than using it when it might not be necessary.

"Many people who use EAIs have been concerned about the current shortage of EpiPens," says [allergist](#) Anne Ellis, MD, chair of the ACAAI

Anaphylaxis Committee. "It's important for those who have severe, [life](#) threatening reactions to their allergies to have confidence in the EAIs they carry and know they'll work in an emergency. This study showed that even when an EAI has been unintentionally frozen, the risk is low that it will malfunction."

If you have an EAI that was unintentionally frozen, and you experience an anaphylactic reaction, it's better to use a 'thawed' device than nothing at all. However, you should talk with your allergist about a prescription for a new [device](#).

"The study did not examine the amount of epinephrine remaining in the solution after it had been frozen," says Dr. Ellis. "We know [epinephrine](#) is a somewhat unstable compound, and that's why the shelf life of EAIs is so short."

If you have a severe [allergy](#) that could result in anaphylaxis, see an allergist. Allergists are trained to help you live the life you want by working with you to treat allergic diseases and avoid severe reactions.

More information: Abstract Title: The Effects of Freezing on Epinephrine Auto-Injector Device Function

Provided by American College of Allergy, Asthma, and Immunology

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