

Anaphylactic shock: What it is, causes, symptoms and treatments

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If you or someone you know experiences allergies, you've probably

heard of the life-threatening reaction called anaphylactic shock.

To help you better understand exactly what this condition is and how to manage it, experts offer a guide on what [anaphylactic shock](#) is, its symptoms, causes, risk factors and treatments.

What is anaphylactic shock?

Anaphylactic [shock](#) is a consequence of anaphylaxis, which is a severe immune reaction to something you're allergic to, such as peanuts or bee stings. According to the [Mayo Clinic](#), what sets anaphylaxis apart from other [allergic reactions](#) is that it involves several systems in your body.

During anaphylactic shock, chemicals released during anaphylaxis cause your blood pressure to drop rapidly and your airways to narrow, inhibiting your ability to breathe.

Anaphylactic shock symptoms

Identifying the signs of anaphylactic shock can help ensure you seek [medical attention](#) as quickly as possible, since the condition can be fatal if not treated immediately.

The Mayo Clinic says that the main anaphylaxis and anaphylactic shock symptoms are:

- Swelling, especially in the throat
- Low blood pressure
- Trouble breathing
- Difficulty swallowing
- Passing out or feeling dizzy
- Wheezing and chest tightness

- Turning red or going pale
- Vomiting, stomach cramps or diarrhea
- Rash, including hives or welts.

These symptoms typically happen within a few minutes of the body coming into contact with the substance, although it may take half an hour or longer.

If you think you or a loved one are experiencing anaphylactic shock, immunologist [Dr. Anuja Kapil](#) recommended reaching out for help immediately.

"Calling 911 is better than driving to the [emergency department](#). Emergency medical technicians in an ambulance have protocols and access to treatments specifically for severe allergic reactions," she advised in a Cleveland Clinic [article](#).

Anaphylactic shock causes and risk factors

Medications such as antibiotics and pain relievers; latex; insect stings, and even exercise (particularly during hot, humid or cold weather) may all cause anaphylactic shock, according to the Mayo Clinic.

However, food allergies are the most common cause of the anaphylaxis that leads to anaphylactic shock.

"It's unfortunate we're seeing food allergy prevalence increasing," Cleveland Clinic allergist [Dr. Jaclyn Bjelac](#) noted in an [article](#).

"But thankfully that has brought an increased awareness and understanding about what it means to have a food allergy. That's a big step toward helping people manage it," she added.

Although over 170 foods are considered allergens, Bjelac explained that there are nine foods that are linked to 90% of food allergies:

- [Shellfish](#) (which tends to trigger reactions in Black children more than [white children](#))
- Fish
- Wheat
- Cow's milk
- Peanuts
- Eggs
- Tree nuts
- Soybean
- Sesame

While anyone can potentially experience anaphylactic shock, the Mayo Clinic notes that having asthma, allergies or previous anaphylaxis reactions increases your risk.

People with [heart disease](#) and abnormal levels of white blood cells known as "[mast cells](#)" are also more likely to experience an episode of anaphylactic shock.

Research published recently in the journal [Science Immunology](#), which was conducted on mice at Duke University Medical Center, showed that these mast cells communicate with the nervous system to rapidly reduce [blood pressure](#) and body temperature after an allergen is detected.

"This finding for the first time identifies the [nervous system](#) as a key player in the anaphylactic response," study author [Soman Abraham](#) said in a Duke [news release](#).

Anaphylactic shock treatments

The [American Academy of Allergy, Asthma & Immunology](#) (AAAAI) states that epinephrine pens that are prescribed by your doctor are the main treatment for anaphylactic emergencies.

These are essentially a shot of adrenaline that helps stabilize your systems, giving you time to reach a hospital or other medical facility.

While some of these injectors may be [pricey](#), the Cleveland Clinic recommends several safe and effective [epinephrine options](#).

Kapil said that remaining calm during an episode of anaphylactic shock also helps your ability to breathe. Once the episode passes, she said to contact your doctor for follow-up testing, particularly if you're unsure of what caused it.

"Testing can help pinpoint the reason behind your reaction. Better yet, it might help you keep away from what triggered it," Kapil explained.

To ensure you and those around you are prepared to effectively handle an episode of anaphylactic shock, the AAAAI recommends filling out its [Anaphylaxis Action Plan](#) and providing it to your child's school administrator, your work team and other responsible parties.

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