

## Severe Allergic Reaction (Anaphylactic Shock)

### What is anaphylactic shock?



Anaphylactic shock is a severe allergic reaction that occurs within minutes of exposure to an allergy-causing substance, called an allergen. Examples of substances that can cause this severe allergic reaction are penicillin or a bee sting.

### How does it occur?

After contact with an allergen, your blood vessels leak fluid into the area around them. As a result, your blood pressure may drop suddenly. Because there is less blood flow, less oxygen reaches your brain and other vital organs. Since these organs cannot function properly, your body goes into shock. In addition, your body responds to the allergen by releasing chemicals such as histamines that cause swelling of the skin, a red rash, and severe itching.



Complications of anaphylactic shock can include brain damage, kidney failure, and death.

Substances that can cause anaphylactic shock include:

food and food additives

insect stings and bites

agents used in immunotherapy, which is the controlled, gradual exposure to a substance your body is allergic to in an effort to desensitize you to it

drugs such as penicillin

drugs used as local anesthetics, such as benzocaine and lidocaine

vaccines such as antitetanus serum

in rare cases, pollens, dust, other substances in the air, or pet dander.



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## What are the symptoms?

Symptoms of anaphylactic shock include:

feeling faint

rapid pulse

difficulty breathing, including wheezing

nausea and vomiting

stomach pain

swelling of lips, tongue, or throat (including the soft palate and uvula, the soft structure hanging from the palate)

itchy, blotchy, raised rash called hives

pale, cool, damp skin

drowsiness, confusion, or loss of consciousness

heart may stop beating.



## How is it diagnosed?

If you are conscious, your health care provider will ask you about contact with substances you may be allergic to. Then your provider will examine you for symptoms of shock by checking your:

blood pressure

pulse and heart rate

breathing

skin condition and color

alertness and mental status.



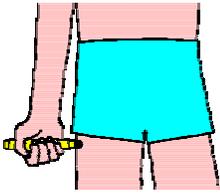
Your health care provider may recommend tests to determine the cause of your condition and its seriousness.

## How is it treated?

### Treating yourself:



If you have a known severe allergy, such as to a bee sting or a food such as peanuts, which you might accidentally contact, ask your health care provider about carrying EpiPen. EpiPen is a single-dose injection kit of epinephrine.



With the kit you can give yourself a shot of medicine to counteract the allergic reaction until medical help arrives. While you wait for help, lie down and raise your legs above the level of your chest to increase the blood flow to your heart and brain.

### **Treating someone in severe shock:**

Anaphylactic shock requires emergency medical attention. If you suspect someone is in shock, call 911 and ask for paramedics and an ambulance.



Check to see if the person has stopped breathing or if his or her heart has stopped beating. If so, give cardiopulmonary resuscitation (CPR) until the person is breathing and has a pulse or until paramedics arrive.

Next, make sure the person is lying down comfortably. If the person has a clear airway (has nothing in his or her mouth or throat), raise the person's legs above the level of his or her chest to increase blood flow to the heart and brain.



Look for a medical card or Medic Alert bracelet, which has information about allergies.

When a doctor or paramedic arrives, he or she may give the person an shot epinephrine (adrenaline) right away after verifying anaphylaxis or a less severe allergy reaction. In addition, the health care provider may:

- give the person drugs such as antihistamines or cortisonelike drugs, possibly into the veins

- give fluids through the veins to increase fluid volume inside the blood vessels

- hospitalize the person to be sure that his or her blood pressure and heartbeat are restored to proper levels and that the symptoms do not recur.

### **How long will the effects last?**

How long the effects of anaphylactic shock last will depend on how quickly the person receives treatment. The symptoms may last from a few minutes to several hours. Without immediate medical



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treatment, the result can be death, but early treatment can help prevent serious complications.

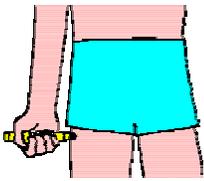
## How can I take care of myself?

Do not delay seeking help.

If you have had a previous severe allergic reaction, you may want to:

Ask your health care provider to prescribe several kits to treat shock and review the instructions with you. Check the expiration date on the kits.

Review the instructions until you are familiar with them. Carry one kit with you in your briefcase, sports bag, or handbag, and keep one at home.



Be prepared to give yourself a shot in case of an emergency. Think of the shot as something you can do to keep yourself alive long enough to reach medical attention.

Wear a Medic Alert bracelet that warns of your allergy and tells what to do in case of an emergency. Inform your friends and co-workers of these measures.

Avoid foods, chemicals, drugs, and other substances that have caused allergic reactions. For example, if shrimp causes an allergic reaction, don't eat shrimp or shrimp sauce.



Consider having immunotherapy, in which your immune system is gradually exposed to the toxic substance to make it less harmful to you. Immunotherapy is very effective for insect allergies but not for food or drug allergies.

Always tell your health care provider and dentist about any drug allergies you have before they prescribe medication. Ask them to prescribe another drug as soon as possible and ask for a list of related drugs. Also tell your pharmacist about any drug allergies.



Check labels before taking over-the-counter medicines or eating foods if you have drug or food allergies.

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## How can I help prevent anaphylactic shock?

Learn what substance causes your reaction and avoid that substance. Ask your health care provider about desensitization treatments, which can help in some cases.



Developed by McKesson Clinical Reference Systems.

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