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# What is Anaphylaxis?

By Kimberly Khosla, M.D.

Anaphylaxis is an extreme allergic reaction that is often sudden and potentially severe, even life-threatening. Anaphylaxis can occur from minutes to several hours after being exposed to a substance to which you are allergic. Common causes include allergies to insect stings, medication, latex or foods. Those with asthma are at greatest risk for an anaphylactic reaction. Symptoms affect the skin, gastrointestinal (GI) tract, respiratory tract and cardiovascular system. It can affect multiple systems in the body at the same time and may include:<sup>1</sup>

**Skin:** Flushing, itching, hives, swelling, rash, itching of lips, tongue and palate; swelling of lips, tongue and uvula; itching around the eyes, redness and swelling, tearing, itching in the outer ear canals

**Respiratory:** Itching and tightness of the throat; difficulty swallowing, change in voice/hoarseness, dry cough, stridor (harsh, high-pitched breathing), shortness of breath, chest tightness, cough and wheezing; itching of the nose, runny nose, congestion, sneezing

**Gastrointestinal:** Nausea, crampy abdominal pain, vomiting, diarrhea

**Cardiovascular:** Decreased blood pressure, feeling faint, fainting/unconsciousness, not acting normally; chest pain, heart rhythm abnormalities

**Other:** Headache, uterine cramping in women; sense of doom

Anaphylaxis is treated with an epinephrine auto-injector, which is usually injected directly into the thigh muscle. These come in doses suitable for children and adults and can be carried by the allergic individual for immediate use in the event of accidental exposure to the allergen that causes anaphylaxis.

If you have an anaphylactic reaction, or if you suspect you have ingested something that will cause an anaphylactic reaction, use an epinephrine auto-injector immediately. Afterwards you **MUST** call for a rescue squad, such as dialing 911, to get to a hospital. If possible, request to be transported by an Advanced Life Support squad.

Epinephrine only lasts ten to twenty minutes and is used only to buy time to get to the hospital for further treatment. For this reason, many people carry two doses of epinephrine. A second dose may be administered after five minutes if the symptoms still remain or worsen.<sup>1</sup>

Once you have been treated in the Emergency Department, you must stay there for at least four hours after the symptoms have disappeared because some reactions are biphasic. Biphasic means another reaction may occur after the initial reaction. The Emergency Department or your allergist may even recommend further treatment with an antihistamine or steroid.

Anaphylaxis may be mild to severe and can be fatal. Prevention is the best method for avoiding anaphylactic reactions. Always carry an epinephrine auto-injector and an antihistamine, have a written emergency plan from your physician, and consider a medical ID bracelet. If you have food allergies, learn how to read labels for the offending foods, carry safe snacks with you, and when in doubt, don't consume a food if you don't know how it was prepared.

## References:

1. Sampson HA, Munoz-Furlong A, Bock SA, Schmitt C, Bass R, Chowdhury BA, Decker WW, Furlong TJ, Galli SJ, Golden DB, Gruchalla RS, Harlor Jr, AD, Hepner DL, Howarth M, Kaplan AP, Levy JH, Lewis LM, Lieberman PL, Luccioli S, Metcalfe DD, Murphy R, Pollart SM, Pumphrey RS, Rosenwasser LJ, Simons FE, Wood JP, Camargo Jr: CA Symposium on the definition and management of anaphylaxis: Summary report. *J Allergy Clin Immun* 2005; 115:584-91



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