

A severe systemic allergic reaction is known as anaphylaxis. This occurs when someone who is allergic comes into contact with allergens they have been sensitized to. An allergic response begins with exposure. Antigen molecules enter the bloodstream and interact with IgE antibodies which are bound to mast cells and basophils. The mast and basophil cells release a variety of compounds, which is called degranulation. Histamine and other inflammatory mediators trigger various symptoms as they travel throughout the body. During the immune response, biochemical mediators are activated which cause many problems. This induces severe, life-threatening allergic reaction. It will be systemic, local and involve the organs. With the skin you will start to see hives, flushing, itching, burning and swelling. In the respiratory system, shortness of breath, wheezing or trouble breathing is common. Along with sneezing, congestion, tightness in the lungs and hoarseness. These symptoms can become so severe the person stops breathing, which is called asphyxiation. In the cardiovascular system, coronary artery spasms and vasodilation can cause a drop in blood pressure. If the blood pressure drop is severe enough then the person is in shock and could lose consciousness or feel lightheaded. Dilated blood vessels in their brain can give them a headache. Vasodilation and the release of fluids from the blood and the surrounding tissue causes the drop in blood pressure known as anaphylactic shock. Anxiety, confusion and panic are all common neurological symptoms. Anaphylaxis is an emergency medical condition

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requiring immediate medical attention. A person experiencing anaphylaxis should use an EPI-Pen until they can reach medical attention.