

Anaphylaxis is systemic and severe allergic reaction that occurs from the human body reacting to a foreign substance. Being systemic, the body's response to anaphylaxis includes more than one organ system, typically the cardiovascular and the respiratory system. When the foreign substance is introduced to the body it interacts with mast cells and basophils causing anaphylactic shock. The body then releases immunoglobulin G antibodies to fight the foreign substance. When anaphylactic shock occurs the main signs that occur are breathing difficulties (fast, shallow breathing), airways constriction, hives, and dizziness or fainting. The clinical symptoms can present and range from mild, severe, or biphasic. Epinephrine will be given to dilate the airways, constrict the blood vessels to stabilize blood pressure, and stop the further release of the biochemical mediators causing the anaphylactic shock. Benadryl is given to stop the histamine response, which will reduce the swelling and redness. Corticosteroids can also be given to prevent any delayed reactions. Thorough assessments and early recognition and treatment are the keys to patient survival. Anaphylaxis shock is the most severe form an allergic reaction. An allergy is a disorder in the immune system, where the immune system tries to fight things off in the environment as if they were harmful. Allergies on the hand usually do not cause severe life-threatening symptoms like anaphylactic shock. The main symptoms that occur from allergies are skin rashes, sneezing fits, watery eyes, and asthma attacks. Pollen is the main culprit that affects one in five people with allergies, but dust and some foods can also cause allergies. The first time the immune system interacts with an allergen, the body makes specific antibodies for that allergen so that the next that specific allergen is re-introduced to the body those antibodies will attack and attach to the allergen. Once they are attached, they release natural chemicals like histamine, to enter the surrounding tissues leading to the early signs of an allergy like runny noses and itchy skin. Treatment of allergies consist of taking over the counter medications or prescription medications like antihistamines to stop the release of histamine causing the symptoms. Decongestants and nasal sprays may also be used to provide temporary relief from nasal issues. Overall, reactions either from anaphylaxis or allergies will never go away and everyone has reactions to different things.