

## Anaphylaxis

Anaphylaxis is a severe, systemic allergic reaction that requires immediate attention. Presenting itself through many different symptoms, but most commonly as: red, itchy, swollen skin, swollen mouth and or tongue, difficulty breathing due to airway closure, and the potential loss of consciousness. It varies from person to person, due to not everyone being allergic to the same thing, or anything at all, for that matter. Anaphylaxis occurs when a person is exposed to a foreign antigen. This antigen enters the blood stream and interacts with immunoglobulin antibodies (IgG antibodies) that are bound to mast cells and basophils. Once this interaction occurs, a message is sent to the cell that causes the degranulation process to begin. This process causes histamines to be released that in turn cause vasodilation and increased vascular permeability within the cells. This process quickly places the affected person into a life-threatening position and in order to reverse the effects, the person would need to inject themselves with epinephrin. This powerful stress hormone rapidly goes to work and reverses the histamines response by constricting the blood vessels and reducing vascular permeability. After the injection of epinephrin has occurred and the anaphylactic reaction begins to subside, the affected person needs to seek immediate medical attention. Although the initial event is no longer affecting the person after the epinephrin injection, there is a possibility for the reaction to strike again within 1 to 12 hours after the initial reaction. Known as biphasic anaphylaxis, it affects the person very similarly to the way that the initial reaction did. Although presenting with the same symptoms, the second phase of anaphylaxis or biphasic anaphylaxis is typically mild or moderate and not as life-threatening as the initial phase of anaphylaxis is. Any allergen can cause anaphylaxis however, some are more likely to trigger it than others. This is why it's so important to be aware of the effects and know what to do in case the reaction were to ever effect you or someone near you.