

GENERAL INFORMATION

DEFINITION - ANAPHYLAXIS

Anaphylaxis (pronounced *anna-fill-axis*) is a serious allergic reaction that is rapid in onset and may cause death. An allergen is a substance capable of causing an allergic reaction. Upon first exposure, the immune system treats the allergen as something to be rejected and not tolerated. This process is called *sensitization*. Re-exposure to the same allergen in the now-sensitized individual may result in an allergic reaction, which in its most severe form, is called *anaphylaxis*.

Foods such as peanuts, tree nuts (e.g. almond, cashew, hazelnut, pistachio), fish, shellfish, eggs, milk, sesame, soy and wheat as well as insect stings (e.g. yellow jackets, hornets, wasps, honey bees), latex products and medications, are the most common allergens that produce anaphylaxis. Anaphylaxis requires immediate first aid response and immediate medical intervention.

Although many substances have the potential to cause anaphylaxis, the most common triggers are foods and insect sting (e.g. yellow jackets, hornets, wasps, honey bees). In Canada, the most common food allergens that cause anaphylaxis are: peanut, tree nuts (almonds, Brazil nuts, cashews, hazelnuts, macadamia nuts, pecans, pine nuts, pistachios, walnuts), milk, egg, seafood (fish, shellfish, crustaceans), soy, wheat, mustard and sulphites (a food additive). Health Canada requires these ‘priority allergens’ to always be identified on food labels by their common names.

IDENTIFICATION

In many cases, the medical diagnosis of anaphylactic allergies is made at a pre-school age, on early exposure to the allergen. The severity of a reaction cannot be predicted. Signs and symptoms of a severe allergic reaction can occur within minutes of exposure to an allergen. In rarer cases, the time frame can vary up to several hours after exposure. The ways these symptoms occur can vary from person to person and even from episode to episode in the same person.

Symptoms of anaphylaxis generally include two or more of these four body systems: skin, respiratory, gastrointestinal and/or cardiovascular. However, low blood pressure alone (i.e. cardiovascular system), in the absence of other symptoms, can also represent anaphylaxis.

INITIAL SCHOOL INVOLVEMENT

Typically, the young child has previously had an unusual reaction to the allergen before entering the school system. The allergic reaction prompts the parent/guardian to seek medical treatment and subsequently a diagnosis of high risk for anaphylaxis is made. When the child reaches school age, the child’s parents/guardians notify the school of the condition and outline the expected response. While it is unlikely that the parent/guardian of a young child will fail to fully inform the school of the child’s high risk of anaphylaxis, school intake procedures should seek to identify those students at risk for anaphylaxis.

AVOIDANCE STRATEGIES

Avoidance is the cornerstone of preventing an allergic reaction. Much can be done to reduce the risk when avoidance strategies are developed. General recommendations for food and insect stings are provided in *Anaphylaxis in Schools & Other Settings*, 3rd Edition.

For food-allergic individuals, the key to remaining safe is avoidance of the food allergen. It must be stressed that very small or minute amounts of certain foods can cause severe reactions when ingested. This may happen if a person at risk touches an allergenic substance and then subsequently touches the mouth. Even a very small amount 'hidden' in a food or a trace amount of an allergen transferred to a serving utensil has the potential to cause a severe allergic reaction.

While it is difficult to completely eliminate all allergenic ingredients due to hidden or accidentally introduced sources, it is possible and extremely important to reduce the risk of exposure to them. Effective ingredient label reading, special precautions for food preparation, proper hand washing and cleaning go a long way toward reducing the risk of an accidental exposure.

Examples of cross contamination:

1. A spoon is used to stir chocolate syrup into milk. The same spoon is accidentally used to stir chocolate syrup into soy beverage. The milk-allergic person reacts upon taking a sip of the chocolate soy beverage.
2. Students sharing food with an allergic child.