

ANAPHYLACTIC SHOCK

DEFINITION OF ANAPHYLACTIC SHOCK:

- Is a severe systemic allergic reaction that usually affects the body as a whole and may affect multiple body systems at the same time
- It has an acute onset meaning the more severe reactions are more rapid in onset
- Reactions may be mild to fatal in response to the allergen

Prior to the anaphylactic event, a sensitization stage must occur. The following must occur:

- The first exposure to the allergen produces no symptoms, but sensitizes the individual to future exposures
- Subsequent exposures to the same allergen causes an inflammatory response which produces increased vasodilation (widening of the blood vessels), smooth muscle contraction, and myocardial depression
- These physical changes are what produce the symptoms of hives, edema, bronchospasms, and shock.

RISK:

Millions of people may have no idea they are allergic so are at risk of anaphylaxis.

About 5% of those that have a history of anaphylactic reactions may lead to death due to its severity.

COMMON CAUSES:

FOOD: (About 35-55% of anaphylaxis reactions are caused by a food allergy)

- Peanuts, tree nuts, shellfish, milk, eggs, soy, and wheat

INSECT VENOMS:

- Bees, Honeybees, Yellow Jackets, Wasps, Fire Ants

- Reactions:

Normal: An insect sting produces local pain, redness, and mild swelling which usually subsides within 1-2 hours.

Larger Local Reaction: More pronounced swelling that extends from the sting site over a large area. Symptoms usually peak at 48 hours and may last up to 1 week. The most common symptoms are skin reactions, including hives, flushing, and angioedema (painless swelling under the skin).

Anaphylaxis: Symptoms occur within 15-20 minutes. They include skin, respiratory, and cardiovascular symptoms which can be **Fatal**.

LATEX:

- Latex allergies affects 1-6% of the population
- 8-17% occurred with Health Care Workers therefore Latex has been removed from all Health Care Facilities

MEDICATIONS:

- Antibiotics such as Penicillin and all of its derivatives account for about 75% of allergy deaths in the USA
- Aspirin
- NSAIDS such as Ibuprofen, Advil, Motrin, Alieve
- Chemotherapeutic agents
- Vaccines
- Radiocontrast Dyes for X-rays

IDIOPATHIC:

This means the anaphylaxis reaction is unknown. It is very common and occurs in about 37% of cases.

SYMPTOMS OF ANAPHYLAXIS:

- Skin: Flushing (46%), Hives (88%), Edema(88%), severe itching
- Upper Respiratory: Congestion, runny nose, upper airway edema (56%)
- Lower Respiratory: Bronchospasms, throat or chest tightness, hoarseness, short of breath (46%), wheezing/dyspnea (labored breathing) (47%), cough
- Cardiovascular: Increased or decreased heart rate, hypotension (low BP), dizziness, arrhythmias (irregular heart rate), chest pain

- **Gastrointestinal Tract Symptoms:** These are very seldom life threatening. If they stop the medication or avoid the food the symptoms should go away on their own.

AVOIDANCE OF ALLERGEN:

- **Food:** Avoid known food allergen, read product labels, avoid baked goods made with nut baked ingredients, avoid sharing food, utensils, and food containers
- **Venom-induced Anaphylaxis:** Avoid scented products outdoors, bright colors/floral prints, going barefoot, drinking from open cans or bottles, eating drippy sweat foods, garbage can areas, wear shoes and long pants when insects are active.

TREATMENT:

- Immediately at the onset of symptoms, remove the EpiPen cap and administer directly (through clothing if necessary) at a 90 degree angle pushing firmly against the upper outer thigh and hold to the count of **3**, release the EpiPen and rub the area to the count of **10**.
- **Severity of symptoms can quickly escalate to life threatening.**
- **911 must** be called by all Health Care Facilities for the client to be evaluated by EMT's.
- If EMT's are not on sight with-in 3 minutes and the client is still having difficulty breathing, administer the second dose of EpiPen.
- When EMT's arrive hand over the EpiPen or Pens.
- If the client is to be transported to a medical facility, provide a list of medications (MAR)
- Complete an Incident Report same day.
- Contact the client's place of residence, the supervisor, and the Consulting Nurse.

Enclosed on the next page is the manufacturer information sheet for clients with EpiPens.