

MANAGING STUDENTS WITH ANAPHYLAXIS AND HOW TO USE AN EPIPEN AUTOINJECTOR

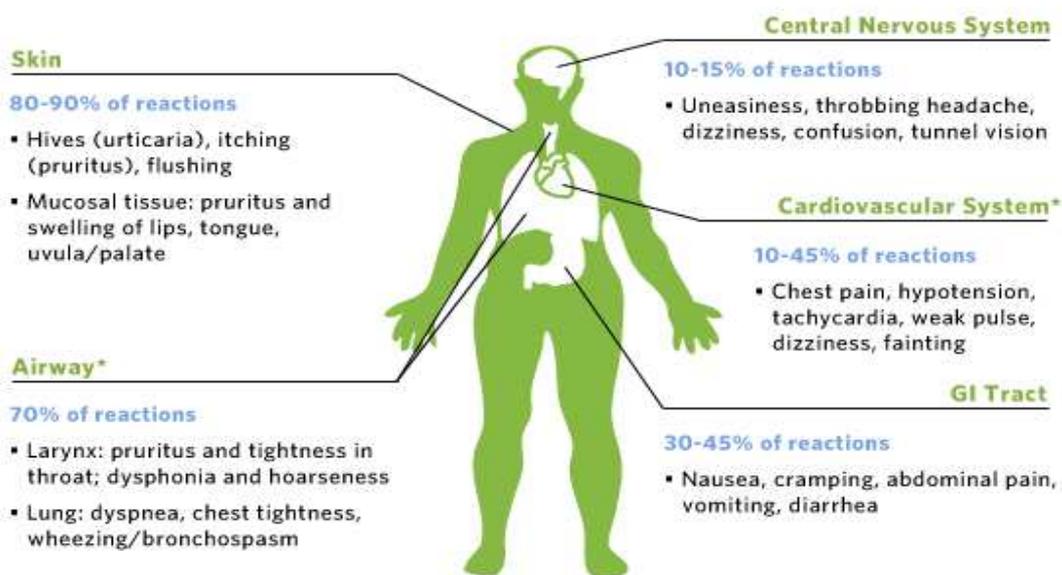
(From EpiPen.mht)

WHAT IS ANAPHYLAXIS?

Anaphylaxis is a **severe** systemic allergic reaction caused by exposure to allergens. An anaphylaxis reaction is rapid in onset and **can cause death**. It can be triggered by a wide range of allergens such as foods, insect stings and bites, medications, and latex (just to mention a few). Anaphylaxis poses serious health consequences, so it is essential that at-risk students be identified and teachers/staff members be prepared in the event of an emergency.

SYMPTOMS:

Figure 1: Common Signs and Symptoms of Anaphylaxis



*Potentially life-threatening symptoms.

Major organs and symptoms implicated in anaphylaxis

THROAT	LUNG	HEART
Pruritus - itching	Dyspnea - shortness of breath	Chest pain
Tightness in throat	Chest tightness	Hypotension - low blood pressure
Dysphonia - difficulty speaking	Wheezing/bronchospasm	Tachycardia - rapid heart rate
Hoarseness		Weak pulse
		Dizziness
		Fainting

What is an Allergic Emergency?

An allergic emergency, medically defined as anaphylaxis (a-na-fi-LAX-is), is a severe allergic reaction that can occur quickly (as fast as within a couple of minutes) and may be life threatening. Symptoms of an allergic emergency vary but can include hives, itching, flushing, and swelling of the lips, tongue, and roof of mouth. The airway is often affected, resulting in tightness of the throat, chest tightness and difficulty breathing. These reactions can also be accompanied by chest pain, low blood pressure, dizziness and headaches.

An allergic emergency is usually a reaction to a specific allergen (trigger). These triggers can include but are not limited to food, stinging and biting insects, medications, and latex. While less common, allergic emergencies can also be triggered by exercise, and some reactions may have unknown causes, which should be further evaluated by your health care professional. Not everyone exposed to an allergen (trigger) will have a severe allergic emergency.

An allergic emergency occurs when the body perceives a trigger as a threat and starts forming antibodies (special proteins made by the body's immune system) to defend itself. These antibodies cause the release of substances like **histamine** (molecules released by the immune system when harmful agents invade the body), which **produce the immediate symptoms of the severe allergic reaction.**

A health care professional should be consulted if you or your child has had even a mild reaction to an allergen (trigger) because a prior mild reaction is not an indicator of the severity of future reactions. A mild allergic reaction can progress and become severe within minutes.

Because the majority of anaphylactic reactions (>80%) include skin symptoms, 80% of anaphylactic reactions are identified by the following criteria (even when the allergic status of the patient and potential cause of the reaction is unknown):

Acute onset of an illness (minutes to several hours) with involvement of the skin, mucosal tissue, or both (eg, generalized hives, itching or flushing, swollen lips-tongue-uvula) **AND AT LEAST ONE OF THE FOLLOWING:**

1. Respiratory compromise (eg, difficulty breathing, shortness of breath, wheeze-bronchospasm, etc.)
2. Reduced blood pressure, fainting, incontinence, etc.

Factors that increase the risk of having a severe allergic emergency include:

- Exposure to certain allergens (triggers) such as food (eg, peanuts, tree nuts, fish, shellfish, eggs, and milk), stinging or biting insects (eg, bees, ants, and ticks), latex, and medications (eg, penicillin) for those who are allergic
- **Age: Adolescents and young adults are at an increased risk of having a severe allergic emergency triggered because of inconsistent behaviors in avoiding known triggers and carrying an epinephrine auto-injector**

Factors that may increase the severity of a severe allergic emergency include:

- **Disorders such as asthma (especially if severe or not controlled with medication), heart disease, high blood pressure and cerebrovascular disease, such as stroke**
- Age: The elderly are at an increased risk of having a more severe allergic emergency because of accompanying disorders and medications used to treat accompanying disorders such as heart disease. In addition, the elderly are at an increased risk of having a more severe allergic emergency if they are exposed to insect venom (eg, stung by an insect)
- Disorders which make the symptoms of allergic emergencies difficult to recognize such as impaired vision, seizures, or depression

- Medications or chemicals which make the symptoms of allergic emergencies difficult to recognize such as antidepressants, sedatives, or alcohol
- Certain medications used in the treatment of heart disease such as beta-blockers, which may block the medicinal benefits of epinephrine

Allergies to Food / Insect Venom

As many as 12 million Americans, or 4% of the US population, have food allergies. The foods that most commonly cause an allergic emergency include: **peanuts (the main source of allergic emergencies in children)**, tree nuts (such as walnuts, pecans and cashews), **shellfish (such as shrimp and lobster, — the main cause of allergic emergencies in adults)**, fish, cow's milk, eggs, and soy.

The severity of a food-triggered allergic emergency depends on a number of factors — the amount eaten, the food form (cooked, raw or processed) and the co-ingestion of other foods. Other variables include the person's age, the sensitivity at the time of ingestion (for example, children are less likely to suffer a severe allergic reaction to milk and egg as they get older), how fast the food is absorbed by the body, and whether the person has another life-threatening condition, such as severe or uncontrolled asthma.

If you or your child has a food allergy, you'll need to steer clear of triggers. This means careful menu planning and reading food labels for alternative ingredient names to make sure you are aware of any "hidden" triggers.

Most people stung or bitten by an insect may experience swelling, pain and redness that may persist for up to a week, and usually gets better without treatment. However, for those who are allergic to insect stings or bites, the situation may become life-threatening. Potentially life-threatening (severe) allergic reactions to the venom of stinging insects such as bees, wasps, and ants can occur in up to 0.8% of children and 3% of adults.

It's nearly impossible to avoid hidden triggers. In particular, children with allergies may inadvertently eat a trigger food at school or be stung/bitten by an insect on the playground. In this case, it's important that the child and his or her family, caregivers and teachers know how to recognize the signs and symptoms of an allergic emergency and know what to do in the event of an allergic emergency: inject the health care professional-prescribed EpiPen or EpiPen Jr. immediately, then promptly call 911 and seek immediate medical attention.

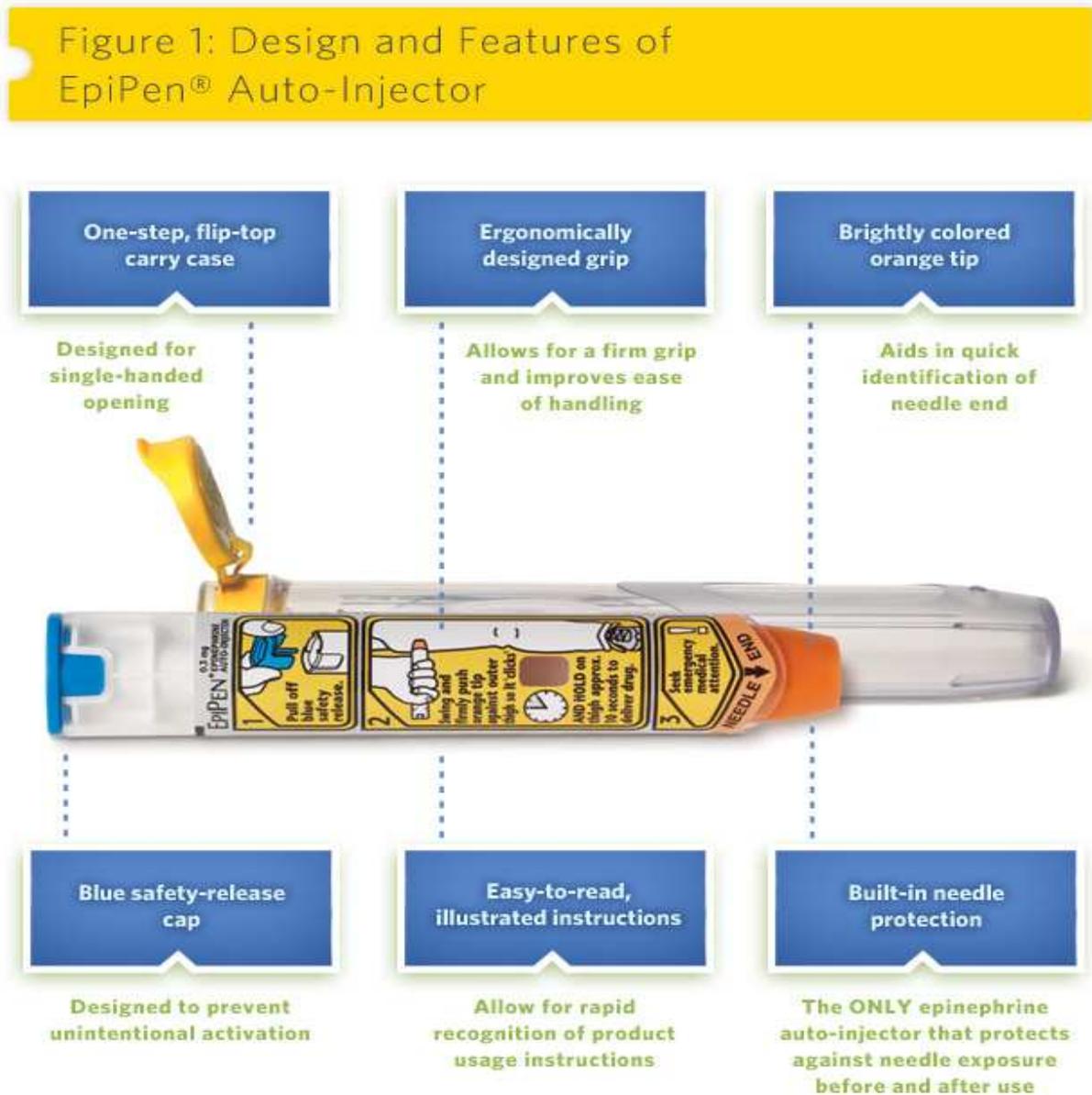
EpiPen[®] and EpiPen Jr Auto-Injectors

The EpiPen and EpiPen Jr Auto-Injectors (0.3 and 0.15 mg epinephrine) are used for the injection of epinephrine, the first-line treatment for anaphylaxis. **EpiPen Auto-Injector is used to treat signs and symptoms of anaphylaxis, including itching, hives, welts, flushing, fainting, rapid heart rate, and difficulty breathing due to laryngeal spasm and/or a decrease in blood pressure.** Anaphylaxis can be caused by triggers such as food, stinging and biting insects, medicines, latex, or even radiocontrast media and exercise.

User-friendly features include:

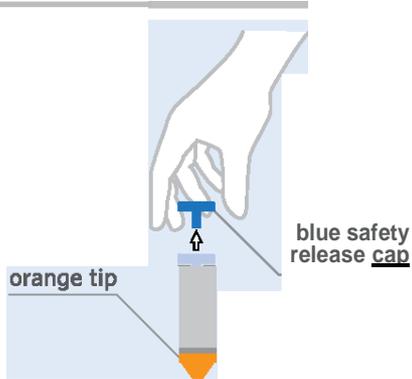
- A one-step, flip-top carry case designed for single-handed opening
- A blue safety-release cap designed to prevent unintentional injection
- An ergonomic design for a firm grip and easy handling
- Easy-to-read illustrated instructions on the auto-injector, which allow accurate and rapid use of the product in an emergency
- A brightly colored orange tip for quick identification of needle end
- And, most importantly, built-in needle protection — the EpiPen Auto-Injector is the only epinephrine auto-injector that protects against needle exposure both before and after use

These features are highlighted in Figure 1:



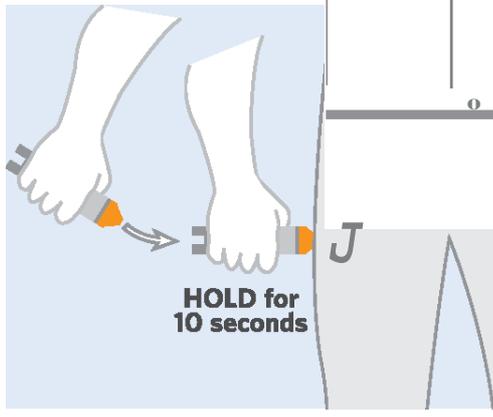
The goal is for all students to eventually carry and self-administer emergency anaphylaxis medications, while also promoting safe and appropriate administration at school. As a result, the following factors must be considered in determining when student assistance is required by faculty or staff members trained in the administration of emergency anaphylaxis medication and included in the Anaphylaxis Emergency Action Plan.

- Appropriate age, maturity, or developmental level
- Ability to identify signs and symptoms of asthma and/or anaphylaxis
- Knowledge of proper medication use in response to signs/symptoms
- Ability to use correct technique in administering medication
- Knowledge about medication side effects and what to report



1

Pull off the blue safety release cap.



2

Swing and firmly push the orange tip against the outer thigh so it "clicks." HOLD on thigh for approximately 10 seconds to deliver the drug.

Please note: As soon as you release pressure from the thigh, the protective cover will extend.

Each EpiPen Auto-Injector contains a single dose of a medicine called epinephrine, which you inject into your outer thigh. **DO NOT INJECT INTRAVENOUSLY. DO NOT INJECT INTO YOUR BUTTOCK,** as this may not be effective for a severe allergic reaction. In case of accidental injection, please seek immediate medical treatment.

Call 911

3

Seek immediate emergency medical attention and be sure to take the EpiPen Auto-Injector with you to the emergency room!!

WARNING!

- ◆ NEVER put thumb, fingers, or hand over orange tip.
- ◆ NEVER press or push orange tip with thumb, fingers, or hand. The needle comes out of orange tip.
- ◆ Accidental injection into hands or feet may result in loss of blood flow to these areas. If this happens, go immediately to the nearest emergency room
- ◆ EpiPen® and EpiPen® Jr Auto-Injector should be injected only into the outer thigh (see "Directions for Use"). **DO NOT INJECT INTO BUTTOCK.**
- ◆ Do **NOT** remove blue safety release until ready to use.

THE FIVE RIGHTS OF MEDICATION ADMINISTRATION:

- the right patient
 - the right drug
 - the right dose
 - the right route
 - the right time

PLEASE REVIEW AND FAMILIARIZE YOURSELF WITH THE FOLLOWING

COLUMBUS MUNICIPAL SCHOOL DISTRICT DOCUMENTS

1. Policy JCCDB regarding anaphylaxis medication (EpiPen).
2. Anaphylaxis Emergency Action Plan.
3. Authorization for Self-Administration of Anaphylaxis (Auto-Injectible Epinephrine) Medications