Managing Allergies and Anaphylaxis at School

EPI-PEN TRAINING FOR SCHOOL PERSONNEL
Objective:

- Attendees will be able to:
  - Increase their knowledge about allergies to food and other allergens.
  - Describe the signs and symptoms of anaphylaxis.
  - Describe the emergency response to anaphylaxis.
  - Demonstrate the administration of emergency epinephrine auto-injectors
Why Is This Important

25% Students Undiagnosed

Timely administration of epinephrine can mean the difference between life and death
Terms to Know

- **Allergen**: A substance capable of producing an immediate hypersensitivity (allergy)
- **Anaphylaxis**: A potentially life-threatening medical condition occurring in allergic individuals after exposure to an allergen
- **Trained/Designated Staff**: School staff who have successfully completed approved training on anaphylaxis and use of epinephrine auto-injectors
- **Emergency Care Plan** or **Emergency Action Plan**: A plan of care that describes step by step how to care for someone with a health emergency
- **Epinephrine Auto-Injector (EAI)**: Medical device used to deliver a measured dose of epinephrine using auto-injector for the treatment of acute allergic reactions to avoid or treat the onset of anaphylactic shock.
Allergy Overview

- Many different substances can cause allergic reactions
- Reactions begin when a susceptible person eats, drinks or touches the offending item or it gets into their eyes, nose, or mouth
- Initial exposure may create no symptoms and go unnoticed
- Reactions can occur minutes to hours after ingestion
- Symptoms can be mild to life-threatening depending on the location in the body in which the response occurs
Anaphylaxis

A potentially life-threatening medical condition occurring in allergic individuals after exposure to an allergen is called **ANAPHYLAXIS**

Symptoms include but not limited to:
- Breathing difficulties
- Drop in blood pressure or shock
- Both may be potentially fatal
- Immediate Intervention Is needed
Common Causes of Allergic Reactions

- Foods are the common cause for children
- Venom from insect stings such as bees, wasps, hornet and yellow jackets.
- Plants such as poison ivy and oak, and pollen from ragweed and grasses
- Medications including antibiotics and others
- Other causes include latex, glue, soaps, and other over the counter products
Food Allergies Are The Most Common

- 5-6% of students have a food allergies
- 16-18% of students experience their first reaction at school
Common Food Allergies

- Peanuts
- Shellfish
- Fish
- Treenuts (i.e. pecan, walnut, cashews, etc.)
- Eggs
- Milk
- Soy
- Wheat
Think **F.A.S.T.**

**Face:** redness, itching or swelling of lips tongue face

**Airway:** trouble breathing swallowing talking

**Stomach:** pain cramps vomiting diarrhea

**Total Body:** hives, itchiness swelling paleness fainting/dizziness sense of doom
Talking The Talk: How A Child Might Describe A Reaction

“My lips feel tight.”
“My mouth/tongue feels funny.”
“There’s something stuck in my throat”
“My tongue is itching, burning, or tingling.”
“There’s a frog in my throat”
Signs and Symptoms Timing

- Symptoms usually appear within minutes
- Can occur up to 2 hours later
- Rebound effect is resurgence of symptoms
Epinephrine Auto Injectors

- 4 types
- Directions for use vary by type
- 0.15 pediatric dose 0.30 adult dose
- Adult dose can be used if no pediatric dose is available
What Does Epinephrine Do?

**Epinephrine**, also known as **Adrenalin**:

- Constricts blood vessels raising blood pressure
- Opens airways in the lungs to improve breathing
- Stimulates the heart beat
- Works to reverse hives and swelling
Preparing the EpiPen

1. Prepare the EpiPen or EpiPen Jr® Auto-Injector for injection

- Remove the auto-injector from the clear carrier tube
- Flip open the yellow cap of your EpiPen or the green cap of your EpiPen Jr Auto-Injector carrier tube
- Tip and slide the auto-injector out of the carrier tube
- Grasp the auto-injector in your fist with the orange tip pointing downward
- With your other hand, remove the blue safety release by pulling straight up without bending or twisting it

**Never-See-Needle™ delivers built-in needle protection**
- Protects against needle exposure before and after use
- The needle comes out of the orange tip
- Never put your thumb, fingers, or hand over the orange tip
Administering the EpiPen

2. Administer the EpiPen or EpiPen Jr Auto-Injector

- Hold the auto-injector with the orange tip near the outer thigh
- Swing and firmly push the orange tip against the outer thigh until it “clicks”
- Keep the auto-injector firmly pushed against the thigh at a 90° angle (perpendicular) to the thigh
- Hold firmly against the thigh for approximately 10 seconds to deliver the drug

The injection is now complete
Finalizing the EpiPen Injection

3 Finalize the injection process

- Remove the auto-injector from the thigh (the orange tip will extend to cover the needle)
- Massage the injection area for 10 seconds

Get emergency medical help right away
The risk of death from untreated anaphylaxis outweighs the risk of adverse side effects from using epinephrine.

Refresher training should be at least annually, upon request, and as directed in the collaborative agreement.
Follow-up and reporting procedures

- Emergency medical care must be obtained immediately after the administration of epinephrine.
- Provide the EMR team with the used epinephrine injector.
- Follow-up diagnosis and care by medical professionals is important for recovery. A delayed or secondary reaction may occur.
Summary of Response

- Know your school’s emergency response procedures and local EMS response for anaphylaxis
- Follow district policy for emergency transport
- Call 911
- Locate the school’s stock epinephrine and administer it as directed in the collaborative agreement
- Have student lie down, feet elevated
- Notify the school nurse (if available) and follow the directives of the collaborative agreement
- Notify parents/guardians and administration
- Document time, suspected allergen if known and response steps taken to provide to EMS
- Report administration to collaborative provider

Most fatalities occur due to delay in delivery of epinephrine