

# **Managing Allergies and Anaphylaxis at School: Training for School Personnel**

**Recognizing Severe Allergic Response  
Use of Epinephrine Auto-Injectors**

The resources for this presentation were created by the  
New York Statewide School Health Services Center  
in collaboration with  
New York State Department of Health (NYSDOH)  
New York State Education Department (NYSED)

**[www.schoolhealthservicesny.com](http://www.schoolhealthservicesny.com)**

This training program may be used to provide training on signs and symptoms of severe allergic reactions (Anaphylaxis) and training on use of epinephrine auto-injectors to allow **Unlicensed school staff** to administer epinephrine auto-injectors to **students or staff members regardless of known history of allergy**. This training is delivered by the collaborative provider or their designee as specified in the collaborative agreement.

# Objectives

Upon completion of this training you will be able to:

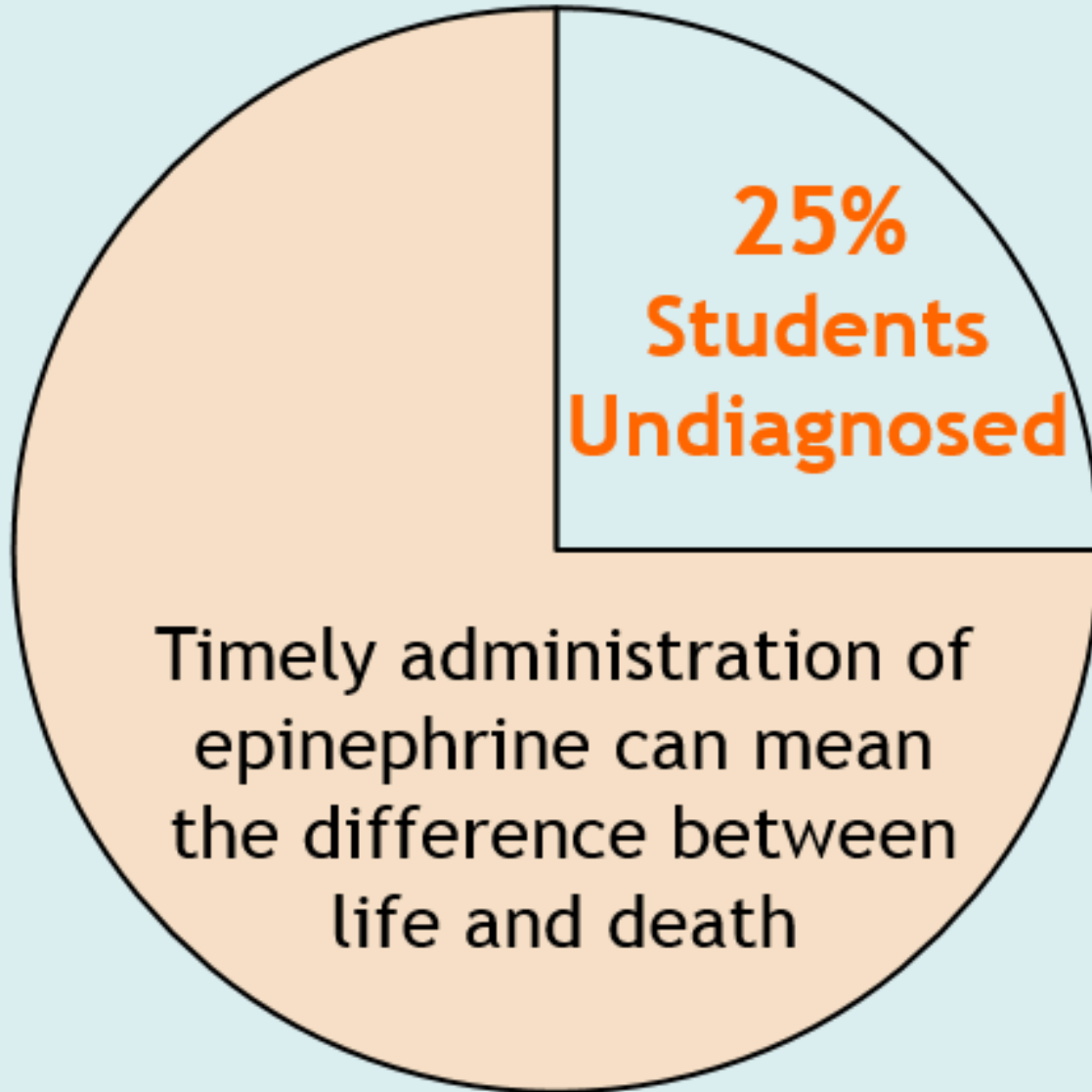
- Describe the state regulations which allow unlicensed staff to possess and administer epinephrine auto-injectors in life threatening situations.
- Identify common causes of allergic emergencies
- Recognize warning signs of allergic emergency
- Follow district policy to call for emergency transport
- Follow the correct steps to administer an epinephrine auto-injector
- List steps for providing ongoing care while awaiting emergency transport
- Describe methods for storing, handling, and disposing of epinephrine auto injectors
- Complete the post-training test on causes, signs and symptoms and appropriate use of epinephrine auto-injector for anaphylaxis, required storage, documentation and reporting with 100% accuracy.

# NYS Laws Regarding Epinephrine

## Unlicensed school staff may:

Administer an EAI to someone who does not have an order if trained by the collaborative provider or their designee in accordance with the collaborative agreement (Education Law Article 19 § 921, and Public Health Law 3000c)

# Why Is This Important



# 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 (EAI)
- **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.

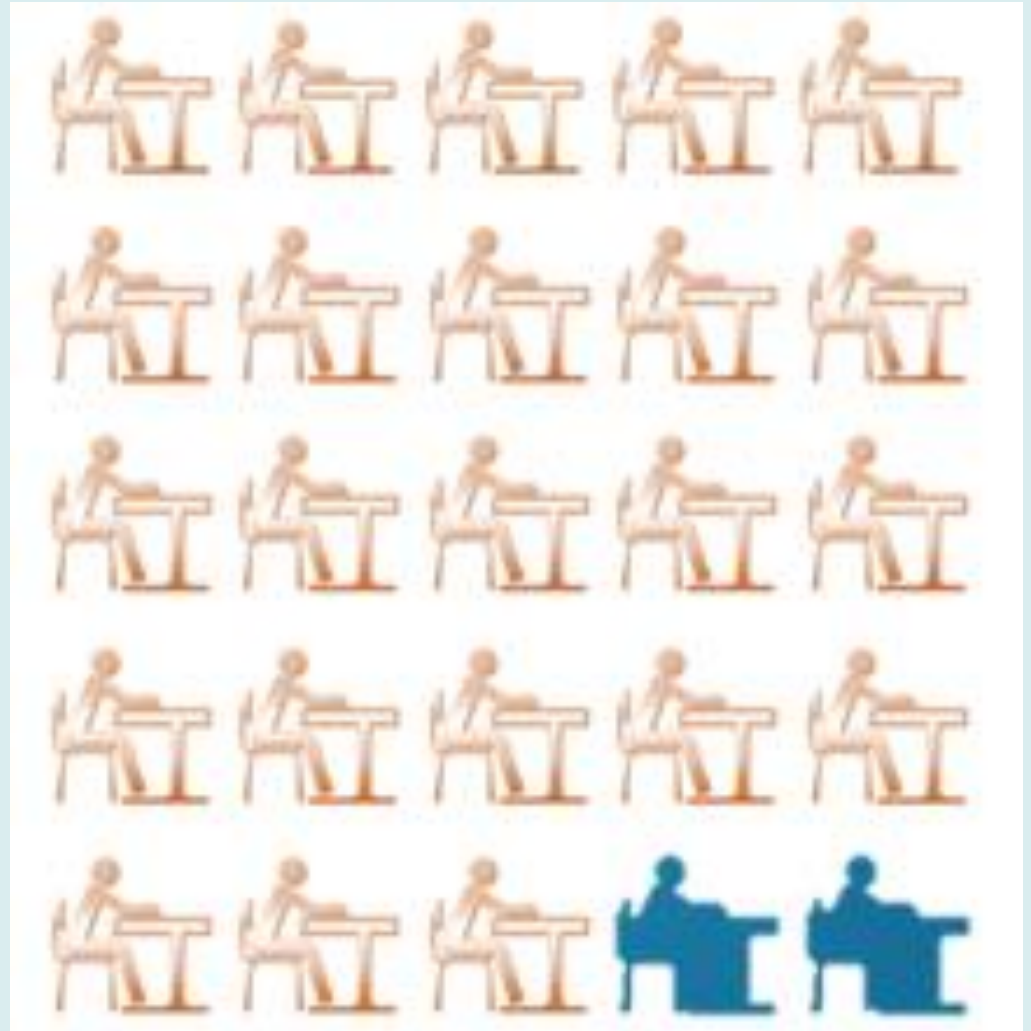
Plants such as poison ivy and oak, and pollen from ragweed and grasses

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
- Tree nuts (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

Product Name	Needle Exposed After Injection	Dosing Per Manufacturer All Brands	Dosing Per <a href="#">2011 NIAID-Sponsored Expert Panel</a>
<b>Adrenaclick™</b> 	Yes		
<b>Auvi-Q™</b> 	No	<b>0.15 mg</b> <b>33 - 66 lbs</b> Approximate Ages 4-8 Grades Pre K-3	<b>0.15 mg</b> <b>&lt; 55 lbs</b> Approximate Ages 4-6 Grades Pre K-1
<b>EpiPen® and EpiPen Jr®</b> 	No	<b>0.3 mg</b> <b>66 lbs or &gt;</b> Approximate Ages 8-adult Grades 3-12/adult	<b>0.3 mg</b> <b>55 lbs or &gt;</b> Approximate Ages 6-adult Grades 1-12/adult
<b>Epinephrine Injection, USP auto-injector</b> (Authorized generic (AG) of Adrenaclick™) 	Yes		

- 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

Note: Age/Grade levels are approximate based on CDC Growth Charts (2000) at [www.cdc.gov/growthcharts](http://www.cdc.gov/growthcharts)

# 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



# Severe Allergic Reaction

## Step 1 Administer and Activate EMS

Notify the  
school nurse  
(if available)

- Follow the directives of the collaborative agreement

Call 911  
Activate EMS

- Request dispatcher repeat back the school information

# Severe Allergic Reaction

## Step 2 Monitor and Support

Student with  
specific order


- Monitor for improvement
- Lie person down with feet elevated to reduce shock

Student/Staff  
without a  
specific order

- Monitor for improvement
- Lie person down with feet elevated to reduce shock

# Severe Allergic Reaction

## Step 3 Notify, Document and Debrief

- 
- Notify family and administration
  - Report administration to collaborative provider
- 
- Document all steps with time and action taken
  - Report to REMSCO within 48 hours if practicable

# Epinephrine Disposal

- Epi Pen<sup>®</sup>/Epi-Pen Jr.<sup>®</sup> and Auvi-Q<sup>™</sup>/Auvi-Q Jr.<sup>™</sup> needle is not visible after use
- Adrenaclick<sup>™</sup>/Adrenaclick Jr.<sup>™</sup> and Epinephrine Injection, USP needles are visible after use



# Liability Protection

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

# 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

911

**Most fatalities occur due to delay in delivery of epinephrine**

# Allergy Resources On Our Website

quick links home site map Search Our Site

**NYSSED** NEW YORK STATEWIDE SCHOOL HEALTH SERVICES CENTER  
*Making the Difference. Every Student. Every Day.*

A-Z Index Professional Learning Laws & Guidelines FAQs Data Reporting SN Tool Kit Contact Us

**A-Z Index**

A

- Absenteeism and School Attendance
- Abuse
- Adolescent Health Resources
- AED'S
- **Allergy/Anaphylaxis**
  - Epinephrine In Schools
- Animals in School
- Annual Professional Performance Review (APPR)

**Allergy/Anaphylaxis**

A-Z Index » A » Allergy/Anaphylaxis

**NYSSED**  
NYS Laws and Guidance Memos from NYSED

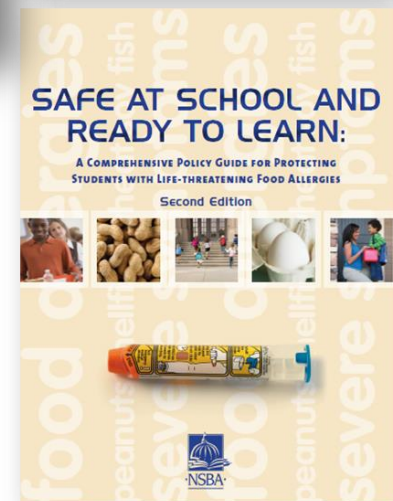
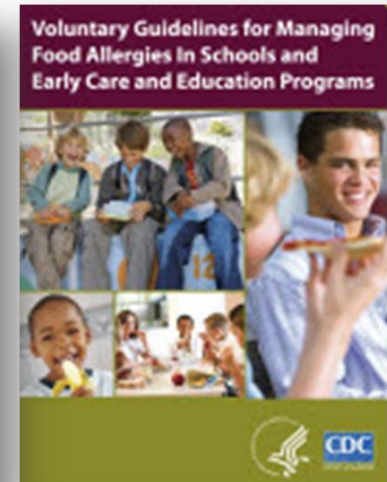
Allergy and Anaphylaxis Management Act of 2007 (PL 2007-112). Requires the commissioner of health, in consultation with the commissioner of education, to provide guidelines and procedures which includes a procedure and treatment plan, including responsibilities for preventing and responding to anaphylaxis. Enacted in 6/30/2008.

Epinephrine can be found on the Epinephrine sub-page to the left or by [clicking here](#).

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- Asthma
- Autism
- Athletic Resources



[www.schoolhealthservicesny.com](http://www.schoolhealthservicesny.com)

# Additional Resources

- **American Academy of Pediatrics** [www.aap.org](http://www.aap.org)
- **Allergy Home** [www.allergyhome.org](http://www.allergyhome.org)
  - **School Allergy Training** [www.allergyhome.org/schools/](http://www.allergyhome.org/schools/)
- **CDC, Food Allergies in Schools**  
[www.cdc.gov/healthyyouth/foodallergies/](http://www.cdc.gov/healthyyouth/foodallergies/)
- **Food Allergy Resource and Education (FARE)**  
[www.foodallergy.org](http://www.foodallergy.org)
- **National Association of School Boards** [www.nasb.org](http://www.nasb.org)
- **New York State Education Department**  
[StudentSupportServices@mail.nysed.gov](mailto:StudentSupportServices@mail.nysed.gov)
- **New York Statewide School Health Services Center**  
[www.schoolhealthservices.org](http://www.schoolhealthservices.org)



# Take the Next Step



- Watch the appropriate epinephrine training video on the next slide
- Complete the post-test which is available from your school district or on the NYSSHSC Epinephrine in Schools webpage
- Bring the completed test and training checklist to your school nurse for students with a order, or person indicated by your school for general administration
- Demonstrate the correct use of the epinephrine auto-injector (EAI)

# Epinephrine Auto-Injector (EAI) Administration Training Videos

**Adrenaclick™**

Runtime 5:13

**Auvi-Q™**

Runtime 5:13

**Epi-Pen®**

Runtime 5:11

**Epinephrine Injection, USP**

Runtime 5:46

Click the links  
to go to the  
manufacturer's  
website to view  
the training  
videos