



GET TRAINED[©]



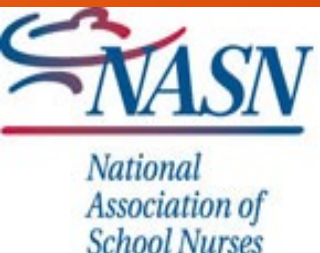
A program for school nurses to train school staff to administer epinephrine using an auto-injector

Get Trained 2016 Updates

Information in this presentation was reviewed and updated in August 2016 by:

Mary Blackborow, MSN, RN

Cathy Grano, MSN, RN,CSN





It's time for all school staff to
GET TRAINED
to administer an epinephrine auto-injector
in an emergency!

This program is supported by an unrestricted grant from Mylan

What Would You Do?

- Bianca has a bee sting allergy
- Her class is on a field trip
- She tells the teacher that she was stung -
 - The teacher sees that she is pale and can hear that she is wheezing
 - Her tongue starts to swell, she gasps for air
 - Bianca is experiencing anaphylaxis



Bianca

You have moments to react

- Bianca is having a life-threatening allergic reaction
- Without prompt treatment with a drug called epinephrine, Bianca could die within minutes
- Do you know what to do?
- Do you know how to give epinephrine?

Objectives

- Learn the signs and symptoms of anaphylaxis
- Have the skills to administer an epinephrine auto-injector
- Review the use of an Emergency Care Plan in responding to a student health emergency

Learn to save the life of a child like Bianca!



What is Anaphylaxis?



What is an allergic reaction?

- An allergy occurs when the immune system mistakenly attacks a food protein or normally harmless substance - it perceives the food or substance as a harmful or foreign one
- Exposure to the offending food or allergen may trigger the sudden release of chemicals, including histamine, resulting in symptoms of an allergic reaction
- The symptoms may be mild or severe - may progress over minutes or hours

Allergic Reactions

- Common things people are allergic to (allergens) include:
 - Bee stings
 - Latex
 - Food Allergies - most common allergens:

Peanut	Tree nuts (walnuts, cashews, pecans, etc.)
Milk	Egg
Wheat	Soy
Fish	Shellfish

Allergic Reactions

Mild

- Usually only mild skin symptoms
- Don't tend to have trouble breathing
- May be treated with antihistamines

Life-Threatening (Anaphylaxis)

- Difficulty breathing or feeling faint
- Often multiple body systems involved
- Treatment =
Epinephrine NOW

Important to make the distinction based on the signs and symptoms seen in a student!

Anaphylaxis (“an-a-fi-LAK-sis”)

- Anaphylaxis is a severe allergic reaction that can be life-threatening in a matter of minutes
 - Almost always unanticipated
- It must be treated immediately
- The drug of choice is epinephrine
- The time to learn how to give life-saving medication is NOW- it needs to be given without delay

It’s time to GET TRAINED!

Sicherer & Simons, 2007

Schoessler & White, 2013

Allergic Management

- Preventing an exposure is key
- For students with a diagnosed allergy:
 - Know who can help!
 - ✓ Talk to your school nurse or healthcare coordinator
 - Know how to react!
 - ✓ Know the signs and symptoms of anaphylaxis
 - ✓ Learn about the student's Action / Emergency Care Plan
 - ✓ Know where your student's medication is and how to help in an emergency
- **IF A CHILD IS HAVING A FIRST TIME REACTION AND DOESN'T HAVE A PLAN - DON'T DELAY USING EPINEPHRINE IF NEEDED**

Robinson & Ficca, 2011

Allergy Management

- Collaboration is vital - everyone should be aware of students with allergies

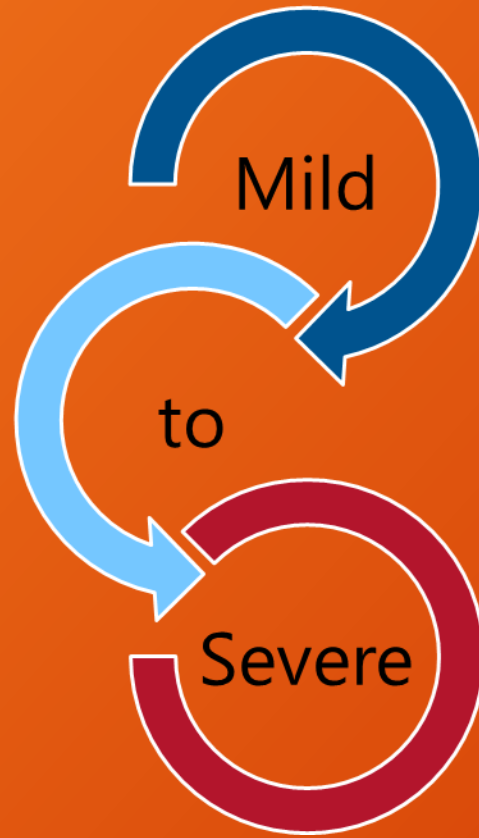
Classroom Teachers	School Administration
Special Area Teachers	Food Service
Student Instructional Support Personnel	Facilities and Maintenance Staff
Transportation Staff	Everyone!

- Must be willing to work as a team to keep these students safe
 - A Coordinated Approach / Effective Partnerships

CDC, 2013



Signs and Symptoms



What does it look like?

Mild Allergic Reaction:

- MOUTH: Itchy mouth
- SKIN: A few hives around mouth/face, mild itch
- ABDOMINAL AREA/ STOMACH: Mild nausea/discomfort

FARE, 2015

What does it look like?

Anaphylaxis: Any **SEVERE SYMPTOMS** after suspected or known ingestion or exposure:

▪ One or more of the following:

- LUNG: Short of breath, wheezing, repetitive cough
- HEART: Pale, blue, faint, weak pulse, dizzy, confused
- THROAT: Tight, hoarse, trouble breathing /swallowing
- MOUTH: Obstructive swelling (tongue and/or lips)
- SKIN: Many hives over body

FARE, 2015

What does it look like?

Anaphylaxis: Any **SEVERE SYMPTOMS** after suspected or known ingestion or exposure:

- Or combination of symptoms from different body areas:
 - SKIN: Hives, itchy rashes, swelling (e.g., eyes, lips)
 - ABDOMINAL AREA/ STOMACH: Vomiting, diarrhea, crampy pain
 - HEENT: Runny nose, sneezing, swollen eyes, phlegmy throat
 - OTHER: Confusion, agitation, feeling of impending doom

FARE, 2015

How will I know what to do?

- School Nurse will develop an Emergency Care Plan for students with a diagnosed allergy
- Includes steps to follow
- Should be reviewed regularly
 - Includes information from the healthcare provider/allergist
 - Use school protocol if available
- Ask: Are signs and symptoms of possible anaphylaxis present and was there an exposure to a possible trigger?
- But be ready to respond if a child doesn't have a plan

Be prepared to act!

Allergy Action/Emergency Care Plan

- Individual – specific to the student
- Plan should be shared with school staff responsible for care
- Information should be treated with care
- Everyone should know where medication is and HOW TO REACT

FARE, 2014

**EL PASO COUNTY SCHOOL HEALTH SERVICES
PRACTITIONER'S WRITTEN ORDER/ALLERGY/ANAPHYLAXIS PLAN**

If medication and/or a health care procedure is to be administered during regular school hours for illness or disability, it is necessary for the District to receive the following:

1. A Practitioner's Written Order statement dated for the CURRENT school year signed by the parent, legal guardian or other person(s) having legal authority of the student AND the attending practitioner licensed to practice medicine in the state of Texas. (Exception: U.S. Military)
2. Original container with prescription label from a registered pharmacist licensed to practice in the state of Texas with current date, student's name, dose to be given, time(s) to be given, and medication route to be given.
3. The student is not allowed to carry his/her own medication or to self-administer the medication unless ordered by the licensed practitioner.
4. ONLY medications and/or health care procedures prescribed in writing by the attending practitioner licensed to practice medicine in the state of Texas are to be administered. The following will not be administered by any school personnel: Medication prescribed and/or purchased in foreign countries, herbal, alternative, or non-traditional preparations.

All Nurses wherever employed must observe the law that requires them to have a written practitioner's order before the administration of any medication

AT THE END OF THE SCHOOL YEAR, ALL UNCLAIMED MEDICATION WILL BE DESTROYED ON THE LAST DAY OF SCHOOL.

COMPLETE AND RETURN THIS FORM TO THE SCHOOL NURSE

Name of Student _____ DOB _____ I.D.# _____ Grade _____
 School Year 20 _____ -20 _____ School Name _____

I. TO BE COMPLETED BY A LICENSED PRACTITIONER

Allergic to: _____

Asthmatic: Yes No (Yes: higher risk for severe reaction)

If allergen has been ingested or suspect ingestion/exposure:

Symptoms	Give Checked Medication Physician authorized treatment	
	<input type="checkbox"/> Epinephrine	<input type="checkbox"/> Antihistamine
Mouth <input type="checkbox"/> No symptoms <input type="checkbox"/> itching, tingling sensation, swelling of lips, tongue, mouth, or drooling	<input type="checkbox"/> Epinephrine	<input type="checkbox"/> Antihistamine
Throat <input type="checkbox"/> swelling of tongue and throat, difficulty swallowing, itching, tightness/closure, hoarseness, changes in voice	<input type="checkbox"/> Epinephrine	<input type="checkbox"/> Antihistamine
Skin <input type="checkbox"/> hives, itchy rash, redness, swelling	<input type="checkbox"/> Epinephrine	<input type="checkbox"/> Antihistamine
Gut <input type="checkbox"/> nausea, abdominal cramps, vomiting, diarrhea	<input type="checkbox"/> Epinephrine	<input type="checkbox"/> Antihistamine
Lungs <input type="checkbox"/> respiratory difficulty, shortness of breath, cough, shallow respirations, wheezing, stridor	<input type="checkbox"/> Epinephrine	<input type="checkbox"/> Antihistamine
Heart <input type="checkbox"/> weak or thready pulse, heart palpitations, drop in blood pressure, dizziness, lightheadedness, loss of consciousness	<input type="checkbox"/> Epinephrine	<input type="checkbox"/> Antihistamine
<input type="checkbox"/> Other _____	<input type="checkbox"/> Epinephrine	<input type="checkbox"/> Antihistamine
<input type="checkbox"/> If reaction is progressing (several of the above area affected) give:	<input type="checkbox"/> Epinephrine	<input type="checkbox"/> Antihistamine

Dosage

Epinephrine Inject intramuscularly (*circle appropriate dose*) Epinephrine injection, auto-injector: 0.3 mg / 0.15 mg

Antihistamine _____ Medication/Dose/Route _____

Other _____ Medication/Dose/Route _____

IMPORTANT: Asthma inhalers and/or antihistamines cannot be depended on to replace epinephrine in anaphylaxis

I understand that the emergency medication listed above may be administered by a trained unlicensed staff member and that 911 will be called whenever the above emergency medication is given. In addition for my patient, I would like to add the following _____

Yes No The above named student is capable of self-administration and should carry his/her own medication.

 Printed Name of Practitioner Practitioner's Signature Telephone Number Date

FAX _____

This Plan was approved by the Southwest School Nurse Administrator Alliance Revised 3-31-2016

Epinephrine Administration



How to use an EpiPen® (epinephrine injection, USP) Auto-Injector

EPIPEN® EPIPEN Jr®
epinephrine injection, USP Auto-Injectors 0.3/0.15 mg

1 PREPARE

Remove the EpiPen® or EpiPen Jr® Auto-Injector from the clear carrier tube. Flip open the yellow cap of your EpiPen® or the green cap of your EpiPen Jr® carrier tube. Tip and slide the auto-injector out of the carrier tube.

Hold the auto-injector in your fist with the orange tip pointing downward. Blue to the sky, orange to the thigh™.

With your other hand, remove the blue safety release by pulling straight up without bending or twisting it.



NEVER-SEE-NEEDLE® helps with protection. Protects against needle exposure before and after use.

NOTE:

- The needle comes out of the orange tip.
- To avoid an accidental injection, never put your thumb, fingers or hand over the orange tip. If an accidental injection happens, get medical help right away.

2 ADMINISTER

If you are administering EpiPen® or EpiPen Jr® to a young child, hold the leg firmly in place while administering an injection.

Place the orange tip against the middle of the outer thigh (upper leg) at a right angle (perpendicular) to the thigh.

Swing and push the auto-injector firmly until it "clicks." The click signals that the injection has started.

Hold firmly in place for 3 seconds (count slowly 1, 2, 3).

Remove the auto-injector from the thigh. The orange tip will extend to cover the needle. If the needle is still visible, do not attempt to reuse it.

Massage the injection area for 10 seconds.



3 GET EMERGENCY MEDICAL HELP RIGHT AWAY

You may need further medical attention.
If symptoms continue or recur, you may need to use a second EpiPen® or EpiPen Jr® Auto-Injector.

INDICATIONS

EpiPen® and EpiPen Jr® Auto-Injectors are for the emergency treatment of life-threatening allergic reactions (anaphylaxis) caused by allergens, exercise, or unknown triggers; and for people who are at increased risk for these reactions. EpiPen® and EpiPen Jr® are intended for immediate administration as emergency supportive therapy only. Seek immediate emergency medical help right away.

IMPORTANT SAFETY INFORMATION

Use EpiPen® (epinephrine injection, USP) 0.3 mg or EpiPen Jr® (epinephrine injection, USP) 0.15 mg Auto-Injectors right away when you have an allergic emergency (anaphylaxis). **Get emergency medical help right away.** You may need further medical attention. Only a healthcare professional should give additional doses of epinephrine if you need more than two injections for a single anaphylactic episode.

Not actual patient.
Please see additional Important Safety Information and Indications on the back.
Please see accompanying full Prescribing Information and Patient Information.

Know what
to do!

Act
Quickly!

Epinephrine

- Epinephrine is the first line treatment for anaphylaxis
- Should be administered IMMEDIATELY
 - Some protocols call for epinephrine to be administered with or without symptoms
 - Parents & school administrators should not be concerned about adverse health effects of epinephrine - it has an impressive safety profile
 - ✓ When in doubt - give the epinephrine
 - Adverse effects for average healthy child not harmful - anxiety, palpitations

A delay in treatment can have devastating results

Schoessler & White, 2013

Robinson & Ficca, 2011

Sicherer & Simons, 2007

Epinephrine Auto-Injectors

- Epinephrine Auto-injectors are easy to use
- Come with instructions
 - Trainers available for practice use
- Websites have video demonstrations - know how to administer your student's auto-injector!

Epi-Pen → video

<https://www.youtube.com/watch?v=ZU7D5GRatSg>

General Auto-injector Instructions

- **GET SPECIFIC DEMONSTRATION/TRAINING FROM YOUR SCHOOL NURSE**
 - It is preferable to use training device from student's brand of epinephrine auto-injector
- Determine that the student requires epinephrine - use protocol or identify symptoms
- Call 911 - have someone call EMS while you administer epinephrine
- Check medication expiration date

General Auto-injector Instructions

1

- Remove safety cap from auto-injector
- Place auto-injector against outer thigh

2

- Push auto-injector firmly against thigh until auto-injector activates

**For small children, hold thigh firmly in place before injecting*

3

- **Hold firmly in place** (*check directions for the auto-injector for length of time to hold: 3 seconds or 10 seconds*)
- Massage site for 10 seconds
- Keep device to give to EMS

Steps to Follow in an Emergency

- Follow the building emergency response plan/protocol (**Call a CODE MEDICAL**) and:
 1. **IMMEDIATELY ADMINISTER EPINEPHRINE AUTOINJECTOR PER STANDING ORDER:**
 - ✓ 0.15 mg of epinephrine for otherwise healthy young children weighing 10 to 25 kg (22 - 55 lbs.)
 - ✓ 0.30 mg of epinephrine for those weighing 25 kg (55 lbs.) or more
 - ✓ Inject into middle outer side of upper leg, note time and site of injection (can be given through clothing)
 - ✓ Stay with student and monitor closely
 2. Designate a person to call Emergency Medical System (911) and request ambulance with epinephrine

Steps to Follow in an Emergency

3. Designate a person to notify, school administration, school nurse and student's emergency contact(s)
 - Stay with and observe student until EMS (ambulance) arrives.
 - Maintain airway, monitor circulation, start CPR as necessary.
 - Do not have the student rise to an upright position.
 - Consider lying on the back with legs elevated position, but alternative positioning is needed for vomiting (side lying, head to side) or difficulty breathing (sitting).
 - Observe for changes until EMS arrives.

Steps to Follow in an Emergency

- IF NO IMPROVEMENT OR IF SYMPTOMS WORSEN IN ABOUT 5 -15 MINUTES,
- ADMINISTER A SECOND EPINEPHRINE DOSE *according to local policy*
 - Provide EMS with identifying information, observed signs and symptoms, time epinephrine administered, used epinephrine autoinjector to take with to the hospital
 - Transport to the Emergency Department via EMS even if symptoms seem to get better.

Document and Debrief

- Discuss with the school nurse how to record that you gave an epinephrine auto-injector dose and the symptoms you witnessed
- Have a debriefing meeting with the nurse and school administration after giving an epinephrine auto-injector
 - Talk about how response went
 - Talk about feelings
 - Talk about ways to improve in the future

Robinson & Ficca, 2011

You Can Do It!

- You know what to do when a student is having a life-threatening allergic reaction
- You know how to give epinephrine

You know how to save
the lives of children
like Bianca!



Bianca

**YOU'VE BEEN EMPOWERED TO
SAVE A LIFE!**





**Thank you for taking the time to
GET TRAINED
to administer an epinephrine auto-injector
in an emergency!**

QUESTIONS?



References

- Guidelines for the Diagnosis and Management of Food Allergy in the United States: Report of the NIAID-Sponsored Expert Panel (2010). *Journal of Allergy and Clinical Immunology*, Volume 126 , Issue 6 , S1 - S58 <http://dx.doi.org/10.1016/j.jaci.2010.10.007>
- Centers for Disease Control and Prevention (CDC). (2013). *Voluntary guidelines for managing food allergies in schools and early care and education programs*. Washington DC: US Department of Health and Human Services.
- Fineman, S. (2014). Optimal treatment of anaphylaxis: antihistamines versus epinephrine. *Postgraduate Medicine*, 126 (4), 73-81. doi: 10.3810/pgm.2014.07.2785
- Food Allergy Research and Education (FARE) (2014). Retrieved from: <http://www.foodallergy.org/>

References

- National Association of School Nurses (NASN). (2014) *Sample protocol for treatment of anaphylaxis*. Retrieved from: http://www.nasn.org/portals/0/resources/Sample_Anaphylaxis_Epinephrine_Administration_Protocol.pdf
- Robinson, J. & Ficca, M. (2011). Managing the student with severe food allergies. *Journal of School Nursing*, 28(3), 187-194. doi: 10.1177/1059840511429686.
- Schoessler, S. & White, M. (2013) Recognition and treatment of anaphylaxis in the school setting: The essential role of the school nurse. *NASN School Nurse*, 29: 407-415. doi: 10.1177/1059840513506014
- Sicherer, S. & Simons, F.E. (2007). Self-injectable epinephrine for first aid management of anaphylaxis. *Pediatrics*, 119(3), 638-646. doi: 10.1542/peds.2006-3689.