



**GET TRAINED**<sup>©</sup>



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

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**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

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### 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*

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## 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?

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## BE EMPOWERED TO SAVE A LIFE -



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## 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!

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## What is Anaphylaxis?




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## 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

FARE, 2015

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## 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

FARE, 2015

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## Allergic Reactions

### Mild

- Usually only mild skin symptoms
- No 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!

Fineman, 2014

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## 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  
Schoesler & White, 2013

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## 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

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## 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

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## Signs and Symptoms



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## 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

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## 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

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## 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

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## 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!**

NASN, 2014

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## 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!

<b>Epi-Pen® video</b>	<a href="http://www.epipen.com/how-to-use-epipen">http://www.epipen.com/how-to-use-epipen</a> <a href="http://www.epipen.com/Epipen4schools.com">Epipen4schools.com</a>
<b>Auvi-Q® video</b>	<a href="https://www.auvi-q.com/">https://www.auvi-q.com/</a>
<b>Adrenaclick®</b>	<a href="http://www.adrenaclick.com/about-adrenaclick/adrenaclick-training.aspx">http://www.adrenaclick.com/about-adrenaclick/adrenaclick-training.aspx</a>
<b>Generic</b>	<a href="http://www.epinephrineautoinject.com/">http://www.epinephrineautoinject.com/</a>

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## 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

NASN, 2014

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## 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
- 3**
  - HOLD FIRMLY FOR AT LEAST 10 SECONDS
  - Keep device to give to EMS

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## Steps to Follow in an Emergency

- Follow the building emergency response plan/protocol and:
- 1. IMMEDIATELY ADMINISTER EPINEPHRINE AUTOINJECTOR PER STANDING ORDER:**
    - 0.15 mg - body weight less than 55 pounds
    - 0.30 mg - body weight 55 pounds 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

NASN, 2014

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## 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, but alternative positioning is needed for vomiting (side lying, head to side) or difficulty breathing (sitting).
  - Observe for changes until EMS arrives.

NASN, 2014

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## Steps to Follow in an Emergency

- IF NO IMPROVEMENT OR IF SYMPTOMS WORSEN IN ABOUT 5 OR MORE 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.**

NASN, 2014

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## 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

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## 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*

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



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

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## References

- 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/>
- 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](http://www.nasn.org/portals/0/resources/Sample_Anaphylaxis_Epinephrine_Administration_Protocol.pdf)

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## References

- 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.

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