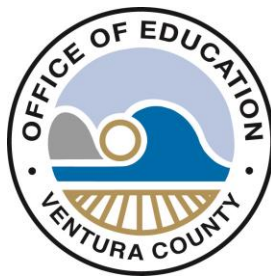


# Ventura County School Nursing Protocol:

## Epinephrine Auto-injectors



## **I. Introduction and Summary of Laws:**

Anaphylaxis is a potentially life-threatening severe allergic reaction to a substance. Epinephrine is a drug that can be successfully utilized to counteract anaphylaxis.

California Education Code (EC) 49414, as amended by Senate Bill 1266, effective January 1, 2015 requires all school districts, county offices of education, and charter schools to provide emergency epinephrine auto-injectors to school nurses and trained personnel who have volunteered to provide emergency medical treatment with the use of epinephrine auto-injectors to a person suffering, or reasonably believed to be suffering from, an anaphylactic reaction.

*EC* Section 49414(f) allows a school nurse, or if the school does not have a school nurse, a person who has received training as described in section 49414(d), may do the following:

- A. Obtain from the school district physician, the medical director of the local health department, or the local emergency medical services director a prescription for epinephrine auto-injectors.
- B. Immediately administer an epinephrine auto-injector to a person exhibiting potentially life-threatening symptoms of anaphylaxis at school or a school activity when a physician is not immediately available.

*EC* Section 49414 (h) requires any local education agency electing to utilize epinephrine auto-injectors for emergency medical aid to create a plan to address all of the following issues:

- A. Designation of the individual or individuals who will provide the training pursuant to Section 49414(d).
- B. Designation of the school district physician, the medical director of the local health department, or the local emergency medical services director that the school district or county office of education will consult for the prescription for epinephrine auto-injectors pursuant to Section 49414(f)(1).
- C. Documentation as to which individual, the school nurse or other trained person pursuant to Section 49414(f), in the local education agency will obtain the prescription from the physician and the medication from a pharmacist.
- D. Documentation as to where the medication is stored and how the medication will be made readily available in case of an emergency.

## **II. Training Guidelines**

A school nurse, or, if the school does not have school nurse available, a trained volunteer may administer an epinephrine auto-injector to a person exhibiting potentially life-threatening symptoms of anaphylaxis at school or at a school activity. It is recommended that all school personnel responsible for the storage and emergency use of an epinephrine auto-injector (EAI) be trained annually, that the training be conducted by a physician or school nurse, and that the training include the following information:

- Techniques for recognizing symptoms of anaphylaxis.
- Standards and procedures for use of storage, restocking, and emergency use of epinephrine auto-injector.
- Instruction on how to determine whether to use an adult or junior epinephrine auto-injector.
- Recommendation for instruction and certification in cardiopulmonary resuscitation
- Emergency follow-up procedures, including calling 911, parent, and pupil's physician.
- Written materials, training logs and documentation.

## **III. Obtaining a Prescription**

1. A qualified supervisor of health or administrator will obtain the initial or replacement prescription for Epinephrine auto-injectors from an authorizing physician and/or surgeon. At a minimum, one adult and one junior epinephrine auto-injector for an elementary school, and one adult (if no pupil requires a junior) for a junior high, middle school, or high school. It is recommended that two epinephrine auto-injectors be kept on-hand.

Prescription requests can be submitted to:  
Ventura County Office of Education  
Comprehensive Health and Prevention Services  
5100 Adolfo Rd.  
Camarillo, CA 93012  
Email: daanderson@vcoe.org  
FAX: 805-437-1515  
Phone: 805-437-3170

The request will need to include the following documents:

- Program Assurances Form to be signed by an Administrator or Qualified Healthcare Professional.
  - Prescription for Epinephrine Auto-Injector (EAI)- district information and total number of EAI's being requested.
  - Epinephrine Auto-Injector Staff Training Log.
  - Disposition and Destruction of EAI's for renewal orders due to expired or used auto-injectors.
2. For used or expired auto-injectors, the qualified supervisor of health or administrator will submit to Ventura County Public Health the following:
- Prescription for Epinephrine Auto-Injector (EAI)- district information and total number of EAI's being requested
  - Disposition and Destruction of EAI's form
3. The prescription can be filled by local or mail order pharmacies or epinephrine auto-injector manufacturers.
4. The school is able to accept gifts, grants, and donations from any source for the support of the public school carrying out these provisions.

#### IV. Techniques for Recognizing Symptoms of Anaphylaxis

The signs and symptoms of anaphylaxis usually appear rapidly, within seconds or minutes after allergen exposure, although in some cases the reaction can be delayed for up to several hours. Anaphylaxis is highly likely to be occurring when any **ONE** of the following happens within minutes to hours after exposure to an allergen:

1. A person has symptoms that involve the skin, nose, mouth, or gastrointestinal tract
  - Itching, wheezing, swelling, throat tightening, vomiting, or diarrhea

**And either:**

  - Difficulty breathing, or
  - Reduced blood pressure (e.g., pale, weak pulse, confusion, loss of consciousness)
2. A person was exposed to a suspected (known allergy) allergen, and **TWO of more of the following occur:**
  - Skin symptoms or swollen lips
  - Difficulty breathing
  - Reduced blood pressure
  - Gastrointestinal symptoms (e.g., vomiting, diarrhea, or cramping)

Some individuals have an anaphylactic reaction, and the symptoms go away only to return a few hours later. This is called a bi-phasic reaction. Often the symptoms of the bi-phasic reaction occur in the respiratory system and take the individual by surprise. After a serious reaction, observation in a hospital setting is necessary for at least four hours after initial symptoms subside because delayed and prolonged reactions may occur even after proper initial treatment.

Once anaphylaxis has begun, the treatment of choice is an immediate intramuscular injection of epinephrine, which is effective for 5 minutes followed by emergency medical attention.

Common causes of anaphylaxis include:

- Food
- Insect stings
- Medication (e.g. antibiotics, aspirin, and non-steroidal anti-inflammatory drugs)
- Latex

Less common causes of anaphylaxis include:

- Food-dependent exercise induced anaphylaxis (rare — occurs when an individual eats a specific food and exercises within three to four hours after eating)
- Idiopathic anaphylaxis (Unknown cause)

Severe allergic reactions may be at times unavoidable because foods may contain unknown or unreported allergy producing ingredients, insects range widely, latex can be found almost anywhere, and some individuals do not know that they are severely allergic to one or more allergens.

## V. Pharmacology of Epinephrine:

The Epinephrine auto-injector provides adrenaline for intramuscular auto-injection in a sterile solution using a spring activated, concealed needle.

Major effects of epinephrine are: Its action is rapid in onset and in short duration

- Increased systolic blood pressure
- Reduced diastolic pressure
- Increased heart rate
- Antihistaminic action
- Bronchodilator

Precautions include:

- Do not inject intravenously
- Do not inject into hands, feet, ears, nose, buttocks, or genitalia
- Do not remove the safety cap until ready to inject the medication
- Do not touch the top of the auto-injector once the safety cap has been removed
- Never put fingers over the needle tip when removing the safety cap or after the safety cap has been removed
- Do not attempt to use the unit again-it must be disposed of properly

## VI. Steps in the Emergency Use of an Epinephrine Auto-Injector

Determine if anaphylaxis is suspected. If there is uncertainty about the diagnosis, but there is a reasonable probability that it is anaphylaxis, then treat as anaphylaxis.

1. **If anaphylaxis symptoms occur, administer the epinephrine auto-injector then call 911** or activate the emergency medical system (EMS). Stay with the victim. Have others notify the paramedics, school nurse, parents and school administrator immediately.
2. Provide reassurance. Have the victim lie down and raise lower legs if tolerated. Do not raise to an upright position. Roll the individual to their side if vomiting and sit up if having trouble breathing.
3. **Prepare to administer Epinephrine Auto-injector.**
  - For students in second grade or below, or if less than 66 lbs, use EpiPen Jr (0.15 mg)
  - For adults and students in third grade or above, or if more than 66 lbs, use EpiPen (0.3 mg)

The Epinephrine acts immediately; however the effects last only 5 minutes. *Make sure someone has called 911.*

4. Epinephrine Auto-Injectors:

### Epi-Pen Administration Procedure:

- A. Grasp the EpiPen and form a fist around the unit. With the other hand, pull off the Blue Safety Cap.
- B. Hold leg firmly in place and limit movement prior to and during injection to minimize injury. Hold the orange tip near the outer thigh. **Only inject into the middle of the outer thigh. Accidental injections should seek immediate medical attention. Never put thumb, fingers, or hand over the orange tip.**

- C. Swing and firmly push the orange tip firmly into middle of outer thigh at a 90° angle (perpendicular). You will hear a click. (The EpiPen can be injected through the victim's clothing, if necessary).
  - D. Hold the EpiPen firmly in place for 3 seconds, and then remove it from the thigh. (After the injection, the victim may feel his or her heart pounding. This is a normal reaction).
  - E. Remove the EpiPen and massage the injection area for 10 seconds.
  - F. Note and record the time the Epi-pen was administered.
  - G. Check the window indicator to see if the medication has been delivered.
  - H. Dispose of the EpiPen in a "sharps" container or give the expended Epi-Pen to the paramedics.
  - I. Call 911, if not previously called.
5. If the anaphylactic reaction is due to an insect sting, remove the stinger as soon as possible after administering the epinephrine. Remove stinger quickly by scraping with a fingernail, plastic card or piece of cardboard. Apply an ice pack to sting area. Do NOT push, pinch, or squeeze, or further imbed the stinger into the skin because such action may cause more venom to be injected into the victim.
  6. Observe the victim for signs of shock. Cover the victim with a blanket, as necessary, to maintain body temperature and help to prevent shock.
  7. Monitor the victim's airway and breathing. If trained, begin CPR immediately if the victim stops breathing.
  8. Take the victim's vital signs (if trained to do so) and record them. Duplicate the emergency card for the paramedics. When paramedics arrive tell them the time Epinephrine was administered and the dose administered. If needle has not been disposed of in a sharp's container, give to the paramedics.
  9. **If symptoms continue and paramedics do not arrive, use a new epinephrine auto-injector and re-inject 5-15 minutes after initial injection.** Continue to monitor the victim's airway and breathing. Stay with the pupil until the paramedics arrive.
  10. After epinephrine is given, the individual should be promptly taken to the nearest emergency department by ambulance for medical evaluation and monitoring. A second delayed reaction may occur after the initial anaphylaxis and this second set of symptoms can also be severe and life-threatening. After evaluation and treatment in the emergency department, parents/guardians should be advised to monitor student according to the recommendations of the treating health care physician.
  11. Document the incident and complete the district's accident/incident report and the Ventura County Public Health (VCPH) Epinephrine Auto-injectors Disposition and Destruction Form. Include in the documentation the date and time epinephrine was administered, the victim's response, and additional pertinent information. Send a copy of the VCPH Epinephrine Auto-injectors Request/incident Form to the school nurse.
  12. Follow-up procedures includes contacting the school nurse, school administrator, pupil's parent and physician and inform them of the actions taken.
  13. Recommend medical care if person develops signs or symptoms of infection, such as persistent redness, warmth, swelling, or tenderness, at the epinephrine injection site.

## VII. Storage and Handling

- Epinephrine auto-injectors should be stored in a secure, but accessible, well-marked, unlocked location **at room temperature** for the school nurse and trained volunteer staff.
- Do not refrigerate.
- Do not expose to extreme heat, such as in the glove compartment or trunk of a car during the summer.
- Do not expose to direct sunlight. Heat and light will shorten the life of the product and can cause the epinephrine to degrade.
- Note the expiration date and dispose of unit properly if expired.
- Do not use if the solution is brown- replace the unit immediately.

It is recommended that 2 Epinephrine auto-injectors be kept on-hand as back-up. If the epinephrine auto-injector is used, it shall be restocked as soon as reasonably possible, but no later than two weeks after it is used. Epinephrine auto-injectors shall be restocked before their expiration date and the school nurse or trained staff will assure the destruction of expired auto-injectors. Volunteer staff should contact the qualified supervisor of health or administrator if their epinephrine auto-injector has expired.

LOCATION WHERE EPINEPHRINE AUTO-INJECTOR IS LOCATED AT YOUR SCHOOL:_____
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## **VIII. Written Materials and Documentation**

Records regarding the acquisition and disposition of epinephrine auto-injectors will be maintained by the local education agency for no less than a period of three years from the date the records were created.

Educational Code (EC) Section 49414(e)(2)(E) requires schools retain the following written materials for reference:

- *EC* Section 49414
- CDE Training Standards for the Administration of Epinephrine Auto-injectors
- Documentation of training logs in the administration of epinephrine auto-injectors
- Defense and Indemnification form, provided and signed by volunteer and kept in their personnel file

## **IX. Volunteer Request**

A notice will be distributed requesting volunteers at least once a year. Each school will designate one or more volunteers to receive initial and annual refresher training. The trained volunteer would be able to use the epinephrine auto-injector to provide emergency medical aid to persons suffering, or reasonably believed to be suffering, from an anaphylactic reaction.

The volunteer request shall be distributed at least annually. The request will include the following (in bold print):

**This is a request for volunteers to be trained to administer an epinephrine auto-injector to a person if the person is suffering, or reasonably believed to be suffering from anaphylaxis.**

**The training will include:**

- **Techniques for recognizing symptoms of anaphylaxis**
- **Standards and procedures for use of storage, restocking, and emergency use epinephrine auto-injector**
- **Instruction on how to determine whether to use an adult or junior epinephrine auto-injector**
- **Emergency follow-up procedures, including calling 911, parent, and pupil's physician**
- **Recommendation for instruction and certification in cardiopulmonary resuscitation**
- **Written materials, training logs and documentation**
- **Defense and Indemnification Acknowledgement form**

## **X. Forms**











The following forms are provided:

- Symptoms of Anaphylaxis
- Administration of Epinephrine via Auto-Injector Program Assurances
- Prescription for Epinephrine Auto-Injector(s) (EAI) Standing Order
- Disposition and Destruction of Epinephrine Auto-Injectors
- Epinephrine Auto-Injector Volunteer Request
- Defense and Indemnification Acknowledgment
- Training Log: Administration of Epinephrine Auto-Injector

## Symptoms of Anaphylaxis

**Cause:** Allergy to food, insect stings, medication, latex

**Onset:** Sudden or may progress slowly

 <p>Sneezing</p>	 <p>Hives/Itching</p>
 <p>Watery Eyes</p>	 <p>Runny Nose</p>
 <p>Difficulty Swallowing/Throat Tightness</p>	 <p>Stomach Cramps/Vomiting/Diarrhea</p>
 <p>Coughing/Wheezing/Difficulty Breathing</p>	 <p>Dizziness or Loss of Consciousness</p>
 <p>Change of Color</p>	 <p>Sense of Doom</p>

**Remain Calm.**

**For progressing symptoms, administer epinephrine auto-injector**

**Call 911**

## Symptoms of Anaphylaxis

Anaphylaxis often begins within minutes after a person eats a problem food. Less commonly, symptoms may begin hours later. About 25 percent of patients have a second wave of symptoms one to several hours after their initial symptoms have subsided. This is called biphasic anaphylaxis.

Anaphylaxis is highly likely to be occurring when any **ONE** of the following happens within minutes to hours after ingestion of the food allergen:

1. A person has symptoms that involve the skin, nose, mouth or gastrointestinal tract **and either**:
  - Difficulty breathing, or
  - Reduced blood pressure (e.g., pale, weak pulse, confusion, loss of consciousness)
2. A person was exposed to a **suspected** allergen, and two or more of the following occur:
  - Skin symptoms or swollen lips
  - Difficulty breathing
  - Reduced blood pressure
  - Gastrointestinal symptoms (e.g., vomiting, diarrhea, or cramping)
3. A person was exposed to a known allergen, and experiences:
  - Reduced blood pressure, leading to weakness or fainting

Reference: Food Allergy Research and Education (FARE): <http://www.foodallergy.org/anaphylaxis>



## Administration of Epinephrine via Auto-Injector Program Assurances

District: \_\_\_\_\_

As a condition of receiving the prescription for Epinephrine Auto-Injector(s), the district will:

1. Provide the EAI's only to the school sites listed on the **Request For Prescription**.
2. Retain records of acquisition and disposition of EAI's for a period of 3 years.
3. Monitor the supply of EAI's and assured instruction of EAI's.
4. Train staff who have volunteered to provide emergency EAI's as follows:
  - a) Provide initial training prior to issuing EAI's.
  - b) Training to be based upon the Training Standards for the Administration of Epinephrine Auto-Injectors issued by the California Department of Education in accordance with Education Code Section 49414/ SB1266.
  - c) Training to be provided by the school nurse OR other qualified person designated by the Medical Director, Ventura County Public Health Department (VCPH).
  - d) Provide required annual refresher training.
5. Provide the VCOE a list of those individuals who have been designated to receive training.
6. Provide the VCOE a list of those individuals who have been designated to conduct the training.
7. Recommend individuals designated to administer EAI's to have current CPR certification.
8. Assume all costs associated with the purchase and/ or replacement of the EAI's or other supplies necessary to train staff and administer the EAI's.
9. Notify the VCOE if there is a change for the Contact Person or the individual(s) designated to conduct the training.
10. Certify to the VCOE, on an annual basis, the training of personnel, purchase, and use of the EAI's.

The district shall hold harmless, defend at its own expense, and indemnify the Ventura County Public Health Department against any and all liability, claims, losses, damages, or expenses, including reasonable attorney's fees, arising from all acts or omissions to act of the district or its officers, agents or employees with respect to EAI's; excluding, however, such liability, claims, losses, damages, or expenses arising from Ventura County Public Health Department's sole negligence or willful act.

The district gives consent for the VCOE to communicate directly with the Contact Person regarding EAI's.

\_\_\_\_\_  
Print Name of Administrator/Qualified Healthcare Professional

\_\_\_\_\_  
Signature of Administrator/Qualified Healthcare Professional

Date: \_\_\_\_\_

**Prescription for Epinephrine Auto-Injector(s) (EAIs) Standing Order**

District: \_\_\_\_\_

Address: \_\_\_\_\_ Phone: \_\_\_\_\_  
Street City Zip

District Contact Person: \_\_\_\_\_  
Name Title

Contact Phone: \_\_\_\_\_ Contact Email: \_\_\_\_\_

**Total Number of Epinephrine Auto-Injectors Requested:** \_\_\_\_\_

Epi Pen Jr 0.15mg: \_\_\_\_\_ (For individuals 33-66 pounds)

Epi Pen 0.3mg: \_\_\_\_\_ (For individuals 66 pounds or greater)

**Total Number of School Sites to Receive EAIs:** \_\_\_\_\_

**Total Number of EAIs Per Site:** \_\_\_\_\_

This prescription constitutes my standing order for the treatment of anaphylaxis and the use of epinephrine to a person suffering or reasonably believed to be suffering from an anaphylactic reaction at school. It is to be administered by a school nurse or trained personnel according to Ventura County Schools Epinephrine Protocol and manufactures recommendations. This order will be good for one year from the date written.

Physician use only:

\_\_\_\_\_  
Robert M Levin, MD License Number G33278 Date

# Disposition and Destruction of Epinephrine Auto-Injectors

Name of School/School District: \_\_\_\_\_

Replace Used Auto – Injector ☐ Replace Expired Auto – Injector ☐

## Documentation of Anaphylactic Reaction (if any)

Date and Time of Occurrence: \_\_\_\_\_

Age of person: \_\_\_\_\_ Gender: \_\_\_\_\_

Please describe what you saw that led you to administer the Epinephrine auto-injection:

## Symptoms and Assessment of Systems:

### Respiratory

☐ difficulty breathing ☐ coughing ☐ tightness/closing of airway/throat  
☐ change in voice ☐ wheezing ☐ swallowing

### Integumentary

☐ itching ☐ hives or swelling ☐ color change (pale, gray or blue)

### Circulatory

☐ increased heart rate ☐ decreased blood pressure ☐ signs of cool or clammy skin

### Gastrointestinal

☐ vomiting ☐ diarrhea ☐ stomach cramps

### Mental status

☐ sense of doom ☐ fainting or loss of consciousness ☐ dizziness

Other: \_\_\_\_\_

Contributing factor: ☐ Food ☐ Insect sting ☐ Medication ☐ Latex

☐ Unknown Describe: \_\_\_\_\_

*Note: Rare causes may be food dependent exercise induced anaphylaxis (an individual eats a specific food and exercises within 3-4 hours after eating) or idiopathic anaphylaxis (unknown cause)*

I ensured disposal of the used or expired epinephrine auto-injector. Number of Adult doses: \_\_\_\_\_

Number of Jr. doses: \_\_\_\_\_

Name of Qualified Supervisor of Health/Administrator

Date

Send form to: Ventura County Office of Education

Comprehensive Health and Prevention Services

5100 Adolfo Rd.

Camarillo, CA 93012

Email: [ktrotsky@vcoe.org](mailto:ktrotsky@vcoe.org) FAX: 805-437-1515

Phone: 805-437-1370

District Letterhead

To Whom It May Concern:

This is a request for volunteers to be trained to administer an epinephrine auto-injector to a person if the person is suffering, or reasonably believed to be suffering, from anaphylaxis.

The training will include:

- Techniques for recognizing symptoms of anaphylaxis
- Standards and procedures for use of storage, restocking, and emergency use epinephrine auto-injector
- Instruction on how to determine whether to use an adult or junior epinephrine auto-injector
- Emergency follow-up procedures, including calling 911, the parent or guardian of the pupil, and pupil's physician
- Recommendation for instruction and certification in cardiopulmonary resuscitation (CPR)
- Written materials, training lots and documentation
- Defense and Indemnification Acknowledgment form

Sincerely,

[District Letterhead or Logo]

**Epinephrine Auto-Injector  
Defense and Indemnification Acknowledgment**

Pursuant to Education Code section 49414(j), as a volunteer of the [Name of School District] trained to use epinephrine auto-injectors to provide emergency medical aid, you are hereby advised that you are protected by the following provisions of California law regarding civil liability for your actions in the course and scope of you serving as a volunteer in this capacity. California law provides specific legal obligations for an employer to defend and indemnify you in litigation against you, and these obligations are set forth in separate statutes in California's Government Code.

The obligation to provide a defense for you if you are sued as a result of volunteer related incidents is set forth in Government Code section 995, which provides in part:

Except as otherwise provided in Sections 995.2 and 995.4, upon request of an employee or former employee, a public entity shall provide for the defense of any civil action or proceeding brought against him, in his official or individual capacity or both, on account of an act or omission in the scope of his employment as an employee of the public entity.

The obligation to indemnify you against a civil judgment or award is set forth in Government Code section 825(a), which provides in part:

Except as otherwise provided in this section, if an employee or former employee of a public entity requests the public entity to defend him or her against any claim or action against him or her for an injury arising out of an act or omission occurring within the scope of his or her employment as an employee of the public entity and the request is made in writing not less than 10 days before the day of trial, and the employee or former employee reasonably cooperates in good faith in the defense of the claim or action, the public entity shall pay any judgment based thereon or any compromise or settlement of the claim or action to which the public entity has agreed.

Please notify the District Office immediately if you receive notification of a claim or suit. This will enable the district to provide adequate defense against the claim or suit.

By signing below, I acknowledge receipt of this notification.

\_\_\_\_\_  
Employee's Signature

\_\_\_\_\_  
Employee's Printed Name

\_\_\_\_\_  
Date

cc: Employee's Personnel File

Training Date:

## Training Log: Administration of Epinephrine Auto-injector

**Training will include:**

- Knowledge of emergency resources in the community
- Techniques for recognizing symptoms of anaphylaxis
- Standards and procedures for use of storage, restocking, and emergency use epinephrine auto-injector
- Instruction on how to determine whether to use an adult or junior epinephrine auto-injector
- Emergency follow-up procedures, including calling 911, parent, and pupil's physician
- Written materials
- Additional: \_\_\_\_\_

**My signature below indicates that I have received a request and volunteer to use the Epinephrine auto-injector to provide emergency medical aid to persons suffering, or reasonably believed to be suffering from an anaphylactic reaction. I understand I am to follow district guidelines as trained by the school nurse. If I have any questions or difficulties performing this procedure, I will immediately contact a school nurse. For a life-threatening emergency, I will call 911 and notify the principal, school nurse, and parent/guardian.**

[illegible]

**School Nurse:** I have conducted the training in accordance with school district procedure guidelines. The employee(s) have demonstrated skills, knowledge and understanding of the administration of epinephrine auto-injectors.

\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_  
**School Nurse (print name)**                      **Signature**                      **Date**