

ANAPHYLAXIS TRAINING PROTOCOL

GENERAL INFORMATION

A school nurse or other qualified supervisor of health shall obtain from an authorizing physician and surgeon as prescription for each school operated by the county office for epinephrine auto-injectors as prescribed by law. If a school district, county office of education, or charter school does not have a qualified supervisor of health, an administrator at the school district, county office of education, or charter school shall carry out the duties specified.

DEFINITION:

Anaphylaxis is a sudden, severe, *potentially fatal*, systemic allergic reaction that can involve various areas of the body (such as skin, respiratory tract, gastrointestinal tract, and the cardiovascular system). Onset may be sudden (generally within minutes to two hours after contact with the allergy-causing substance, but may occur hours after contact). Allergic reactions may be mild to life-threatening. While anyone may experience an anaphylactic reaction, individuals with asthma, eczema, or hay fever are at greater risk. People with asthma are the most at risk for life-threatening anaphylaxis events.

Severe, even fatal reactions can occur in previously unidentified people.

TECHNIQUES FOR RECOGNIZING SIGNS AND SYMPTOMS OF ANAPHYLAXIS:

The signs and symptoms of anaphylaxis usually appear rapidly, within seconds or minutes, after an exposure to an allergen, although in some cases the reaction can be delayed for up to one to three hours depending on the substance causing the reaction. The California Emergency Medical Services Authority (EMSA) definition of **ANAPHYLAXIS IS "ANY RESPIRATORY SYSTEM INVOLVEMENT, DIFFICULTY BREATHING, AUDIBLE WHEEZING, OR DIFFICULTY SWALLOWING."**

ANAPHYLACTIC SYMPTOMS (sudden onset or progression over a few hours) may include any or many of the following:

Skin:

- Hives, rash, prickly feeling
- Generalized flushing, itching, or redness of the skin
- Swelling around the eyes or of the lips, tongue, throat (or any body parts)

Heart:

- Change of color /paleness / bluish color
- Dizziness, confusion
- Fainting or loss of consciousness (passing out)
- Drop in blood pressure / shock /weakness
- Throbbing heart beat/throbbing in ears/headache chest pain

Lungs:

- Asthma like symptoms including:
- Shortness of breath / Difficulty Breathing
- Coughing / Wheezing

Gut /Stomach:

- Abdominal cramping, nausea, vomiting, or diarrhea

Mouth:

- Swelling of the lips, tongue
- Tingling sensation or metallic taste in mouth

Throat:

- Throat tightness or closing / Itching
- Change of voice (hoarse) / Difficulty talking
- Difficulty swallowing

Face:

- Red, watery eyes
- Nasal congestion/Runny Nose

Other:

- Feeling of apprehension or agitation, sweating, sense of doom

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. Therefore, according to the AAAAI, 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.**" (*California Education Coded 94414 2001-American Academy of Allergy, Asthma and Immunology's (AAAAI) Position Statement 34, EpiPen manufacturer training video, FARE Emergency Care Plan and*)

Once anaphylaxis has begun, the treatment of choice is an immediate intramuscular injection of epinephrine, which is effective for 10 to 15 minutes (according to the manufacturer of epinephrine auto-injectors, Dey Labs), **followed by emergency medical attention.**

Common causes of anaphylaxis include:

- **Food allergy**
- **Insect stings**
- **Medication/Drug Reactions (e.g. antibiotics, aspirin, and non-steroidal anti-inflammatory drugs)**
- **Latex**
- **Exercise**

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.

STANDARDS AND PROCEDURES FOR THE STORAGE AND EMERGENCY USE OF EPINEPHRINE AUTO-INJECTORS.

An epinephrine auto-injector is a disposable drug delivery system that contains the proper dose of epinephrine and is used to treat anaphylaxis. It is supplied as a spring-loaded syringe that can be easily transported. The disposable system is designed to treat a single anaphylactic episode and must be properly discarded (in compliance with applicable state and federal laws) after its use. It is generally recommended that two epinephrine auto-injectors be kept on-hand as back-up. The following information on the emergency use of an epinephrine auto-injector is based on the manufacturer's instructions and represents the consensus of the consulting agencies and organizations as listed in *EC* Section 49414(e)(1).

Steps in the Emergency Use of an Epinephrine Auto-Injector (EpiPen):

1. Determine if anaphylaxis is suspected. Anaphylaxis usually, but not always, occurs right after exposure to an allergen so usually occurs right after an insect sting, injection of a drug or medication, or ingestion of medication or foods such as peanuts, nuts, fish, eggs, or milk (any food can potentially cause a reaction). Frequently anaphylaxis occurs in individuals who have a history of a previous reaction. If there is uncertainty about the diagnosis, but there is a reasonable probability that it is anaphylaxis, then treat as anaphylaxis.
2. Have the victim sit down. Reassure the victim and avoid moving him or her. Calming reduces the distribution of the allergen in the body.
3. **Prepare to administer EpiPen** *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)*
 - a. If you are alone with the victim, administer the Epi-Pen and call 911 or activate the emergency medical system (EMS) immediately. Stay with the victim.
 - b. If there are two people in the area have one person call 9-11 while one staff member administers the Epi-Pen. Have the second staff member also notify the school nurse, parents and school administrator immediately.

**The EpiPen acts immediately; however the effects last only 10-15 minutes.
Make sure someone has called 911.**

4. **EpiPen Administration Procedure:**

- . Remove the Epi-Pen Auto-injector from the plastic carrying case
 - a. Grasp the EpiPen and form a fist around the unit. With the other hand, pull off the BLUE Safety Release Cap.
 - b. Hold the orange tip near the outer thigh. Never put thumb, fingers, or hand over the orange tip. (If an accidental injection occurs, go immediately to the nearest hospital emergency room.)
 - c. Swing and firmly push the orange tip into the OUTER BARE THIGH so that the auto-injector is perpendicular (at a 90° angle) to the thigh. 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 10 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 several seconds.
 - f. Check the orange tip:
 - If the needle is exposed, the dose has been delivered
 - If the needle is not exposed, repeat steps b through e
 - f. Give the expended EpiPen to the paramedics or Dispose of the EpiPen in a "sharps" container
 - g. Call 911, if not previously called.

4a. **Auvi-Q Epinephrine Injection Procedure**

- a. Remove the outer case of the Auvi-Q. This will automatically activate the voice instructions.
- b. Pull off red safety guard.
- c. Place back end against mid-outer thigh.
- d. Press firmly and hold for 5 seconds.
- e. Remove from thigh.

4b. **AdrenaClick Generic Procedure**

- a. Remove the outer case
- b. Remove grey caps labeled "1" and "2"
- c. Place red rounded tip against mid-outer thigh
- d. Press down hard until needle penetrates.
- e. Hold for 10 seconds. Remove from thigh.

5. If the anaphylactic reaction is due to an insect sting, remove the stinger as soon as possible after administering the EpiPen. 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. Monitor the victim's airway and breathing. Begin CPR immediately if the victim stops breathing. 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. 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 EpiPen was administered and the dose administered. If EpiPen has not been disposed of in a sharp's container, give the expended EpiPen to the paramedics.
8. **If symptoms continue and paramedics do not arrive, use a new EpiPen and re-inject 15 to 20 minutes after initial injection if available.** Continue to monitor the victim's airway and breathing.
9. Follow-up medical care should be obtained at the emergency room or from the victim's physician. A second delayed reaction may occur up to 6 hours after the initial anaphylaxis.
10. Document the incident and complete the **Emergency Response Report**. Include in the documentation the date and time EpiPen was administered, the victim's response, and additional pertinent information. Send a copy of the report to the school nurse.

FOLLOW UP:

Refer anaphylaxis victim to his/her physician.

Emergency Follow-up procedures:

- 9-1-1 will be called for anyone receiving emergency epinephrine, and he/she will be transported by ambulance to the closest hospital emergency department.

After any administration of epinephrine auto-injectors, staff shall contact Emergency Medical Services by calling **9-1-1 who will need to evaluate student health status and transport to the nearest hospital**. Immediately after discharging the Epinephrine auto-injector a second staff member should notify the parents of an apparent anaphylactic reaction, that epinephrine auto-injector has been administered and 9-1-1 has been called. The staff member should contact the School Nurse, and School administrators. The School Nurse will contact the parents with details of the incident. Staff will complete documentation using the Emergency Response Report. Copies of the Emergency Response Report shall be forwarded to the School Nurse who will retain the records and contact local officials as necessary.

Storage:

- EpiPens will be stored according to the manufacturer's directions to maintain effectiveness.
- Fluid in the EpiPen should be clear and colorless. Discard and replace EpiPen if the fluid has turned brown.

According to the manufacturer, epinephrine auto-injectors should be **stored at room temperature** and replaced prior to the marked expiration date. Auto-injectors should not be refrigerated as this could cause the device to malfunction. Auto-injectors should not be exposed to extreme heat, such as in the glove compartment or trunk of a car during the summer and they should not be exposed to direct sunlight. Heat and light shorten the life of the product and can cause the epinephrine to degrade. To be effective, the solution in the auto-injector should be clear and colorless. If the solution is brown, replace the unit immediately.

School sites should develop procedures to store epinephrine auto-injectors:

1. Determine where the epinephrine auto- injectors are to be stored. Consider accessibility due to campus size and high risk areas (sports fields).
2. Epinephrine should be stored in locked cabinets, and should not be refrigerated or exposed to extreme heat. Store at room temperature.
3. Assure that the location is well-marked and easily accessible to those personnel that are trained to use.
4. Printed instructions/visual guidelines should be included with the epinephrine auto-injector.
5. Recommended Emergency kits can be located with the epinephrine auto-injector containing gloves, alcohol swabs, blood pressure cuff, stethoscope, pulse oximeter, emergency blankets, CPR shield and AED, if available.
6. Emergency Response Report for documentation of epinephrine administration:
 - A. Copy to District Office
 - B. Copy on Site

Restocking:

- Expiration dates will be monitored by the School Nurse or supervisor of health. EpiPens will be replaced prior to the expiration date and within two weeks after emergency use.

Epinephrine auto-injectors shall be **restocked prior to their expiration date and as soon as possible after emergency use, but no later than two weeks after its use.** For annual stocking of epinephrine auto-injectors a School Nurse or other qualified supervisor of, shall be responsible for ordering, maintaining knowledge of and records for tracking expiration dates, and replenishing the supply. Each participating school is responsible to submit to the County Office of Education the name of the school site and the required numbers of epinephrine auto-injectors by May 1 of the preceding school year. The Placer County Office of Education Health Supervisor will facilitate a meeting to occur at least annually (quarterly in the first year of implementation) at which time the Placer County Health Officer will meet with participating school nurses to review protocols, data and write the prescription for epinephrine

auto-injectors. For restocking after emergency use, the school nurse will be responsible for ordering a replacement epinephrine auto-injector and restocking when received.

Record Keeping:

Records regarding the acquisition and disposition of epinephrine auto-injectors shall be maintained by the school district or charter school for three years from the date the records were created. The School Nurse or Supervisor of Health at participating schools shall forward the records annually by May 30 to the County Superintendent.

Each school is responsible to maintain a binder which includes:

- Description of volunteer training with handouts
- Copy of Written Notice of Training form (distributed once a year)
- Copies of all Volunteer Requests
- Emergency Response Reports

The Placer County Office of Education will be responsible for Restocking and Record Keeping for schools that do not have a school nurse available.

CPR training: If conducted will be done in accordance of most recent guidelines from agencies such as the American Heart Association or the American Red Cross.

Training for the use of an epinephrine auto injector:

Training of volunteers will be in accordance with California SB 1266 and shall include:

- a. Techniques for recognizing symptoms of anaphylaxis.
- b. Standards and procedures for the storage, restocking, and emergency use of epinephrine auto-injectors.
- c. Emergency follow-up procedures, including calling the emergency 911 telephone number and contacting, if possible, the pupil’s parent and physician.
- d. Recommendations on the necessity of instruction and certification in cardiopulmonary resuscitation.
- e. Instruction on how to determine whether to use an adult epinephrine auto-injector or a junior epinephrine auto-injector, which shall include consideration of a pupil’s grade level or age as a guideline of equivalency for the appropriate pupil weight determination.
- f. Written materials covering the required information, retained for reference by the school.
- g. Training established shall be consistent with the most recent *Voluntary Guidelines for Managing Food Allergies in Schools and Early Care and Education Programs* published by the federal Centers for Disease Control and Prevention and the most recent guidelines for medication administration issued by the department.

On-Line Information and Resources

Centers for Disease Control	http://www.cdc.gov/HealthyYouth/foodallergies/
Mylan Pharmaceuticals	https://www.epipen4schools.com/
American Red Cross	http://www.redcross.org/take-a-class/course-dowbt00000000011096
National Association of School Nurses (NASN)	http://www.nasn.org/toolsresources/foodallergyandanaphylaxis
California School Nurses Organization (CSNO)	http://www.csno.org/school-nurse-resources.html
Food Allergy Research and Education (FARE)	http://www.foodallergy.org/about-food-allergies
California Department of Education	http://www.cde.ca.gov/ls/he/hn/epiadmin.asp

POLICY

School districts, county offices of education, and charter schools shall provide emergency epinephrine auto-injectors to school nurses or trained personnel who have volunteered, and school nurses or trained personnel may use epinephrine auto-injectors to provide emergency medical aid to persons suffering, or reasonably believed to be suffering, from an anaphylactic reaction.

A school district, county office of education, or charter school shall distribute a notice at least once per school year to all staff that contains the following information:

- A description of the volunteer request stating that the request is 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.
- A description of the training that the volunteer will receive.

The training of volunteers shall include;

- a. Techniques for recognizing symptoms of anaphylaxis.
- b. Standards and procedures for the storage, restocking, and emergency use of epinephrine auto-injectors.
- c. Emergency follow-up procedures, including calling the emergency 911 telephone number and contacting, if possible, the pupil's parent and physician.
- d. Recommendations on the necessity of instruction and certification in cardiopulmonary resuscitation.
- e. Instruction on how to determine whether to use an adult epinephrine auto-injector or a junior epinephrine auto-injector, which shall include consideration of a pupil's grade level or age as a guideline of equivalency for the appropriate pupil weight determination.
- f. Written materials covering the required information, retained for reference by the school.
- g. Training established shall be consistent with the most recent *Voluntary Guidelines for Managing Food Allergies in Schools and Early Care and Education Programs* published by the federal Centers for Disease Control and Prevention and the most recent guidelines for medication administration issued by the department.

A school shall retain for reference the written materials prepared for training.

A qualified supervisor of health at a school district, county office of education, or charter school shall obtain from an authorizing physician and surgeon a prescription for each school for epinephrine auto-injectors that, at a minimum, includes, for elementary schools, one regular epinephrine auto-injector and one junior epinephrine auto-injector, and for junior high schools, middle schools, and high schools, if there are no pupils who require a junior epinephrine auto-injector, one regular epinephrine auto-injector. A qualified supervisor of health at a school district, county office of education, or charter school shall be responsible for stocking the epinephrine auto-injector and restocking it if it is used.

If a school district, county office of education, or charter school does not have a qualified supervisor of health, an administrator at the school district, county office of education, or charter school shall carry out the duties specified. A qualified supervisor of health may include, but is not limited to, a school nurse.

Records regarding the acquisition and disposition of epinephrine auto-injectors furnished shall be maintained by the school district, county office of education, or charter school for a period of three years from the date the records were created. The school district, county office of education, or charter school shall be responsible for monitoring the supply of epinephrine auto-injectors and ensuring the destruction of expired epinephrine auto-injectors.

Every five years, or sooner as deemed necessary by the Superintendent, the Superintendent shall review minimum standards of training for the administration of epinephrine auto-injectors that satisfy the requirements of paragraph (2). For purposes of this subdivision, the Superintendent shall consult with organizations and providers with expertise in administering epinephrine auto-injectors and administering medication in a school environment, including, but not limited to, the State Department of Public Health, the Emergency Medical Services Authority, the American Academy of Allergy, Asthma and Immunology, the California School Nurses Organization, the California Medical Association, the American Academy of Pediatrics, Food Allergy Research and Education, the California Society of Allergy, Asthma and Immunology, the American College of Allergy, Asthma and Immunology, the Stanford Allergy Center, and others.

A prescription may be filled by local or mail order pharmacies or epinephrine auto-injector manufacturers. A school nurse or, if the school does not have a school nurse or the school nurse is not onsite or available, a volunteer may 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. 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.

A volunteer shall initiate emergency medical services or other appropriate medical follow up in accordance with the training materials retained.

A school district, county office of education, or charter school shall ensure that each employee who volunteers under this section will be provided defense and indemnification by the school district, county office of education, or charter school for any and all civil liability, in accordance with, but not limited to, that provided in Division 3.6 (commencing with Section 810) of Title 1 of the Government Code. This information shall be reduced to writing, provided to the volunteer, and retained in the volunteer's personnel file.

A state agency, the department, or a public school may accept gifts, grants, and donations from any source for the support of the public school carrying out the provisions of this section, including, but not limited to, the acceptance of epinephrine auto-injectors from a manufacturer or wholesaler.