

**School District:** \_\_\_\_\_



## **Protocol and Procedures for the Emergency Administration of Epinephrine**

### **I. INTRODUCTION**

California Education Code § 49414(a) states that a school district may provide emergency epinephrine auto-injectors to trained individuals, and those trained individuals may use those auto-injectors to provide emergency medical aide to any persons on school grounds suffering from an anaphylactic reaction, regardless of whether or not they have been prescribed epinephrine.

Business and Professional Code § 4119.2(a) allows pharmacies to furnish epinephrine auto-injectors to schools to be administered by volunteers that have been trained:

1. The epinephrine auto-injectors are furnished exclusively for use at a school district site.
2. A physician or surgeon provides a written order that specifies the quantity of epinephrine auto-injectors to be furnished.
3. Records regarding the acquisition and disposition of epinephrine auto-injectors furnished will be maintained by the school district named above for a period of three years from the date the records were created. The school district designee will be responsible for monitoring the supply of epinephrine auto-injectors and ensuring the destruction of expired epinephrine auto-injectors.

The following is required:

- Trained designees at each site for any student or person who requires the emergency administration of prescribed epinephrine for anaphylaxis when the school nurse is not available
- Secure but unlocked storage of prescribed epinephrine in easily accessible locations
- An immediate call to 911
- Transportation of the student or person to a hospital emergency room by emergency services personnel after the administration of epinephrine

## II. TRAINING STANDARDS

The District nurse must provide training for all school personnel responsible for the administration of epinephrine. This training must be provided at least annually and must include the information provided in this document. Training 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. The school district will retain for reference the written materials prepared and provided to staff as part of the training.

If the District nurse is not onsite or available, a trained volunteer may administer an epinephrine auto-injector to any student or person exhibiting potentially life-threatening symptoms of anaphylaxis at school or a school activity. A volunteer shall initiate emergency medical services or other appropriate medical follow-up in accordance with the training materials provided. Employees who have volunteered and been trained to administer epinephrine are protected under district policies and procedures. Any volunteer may rescind their offer in writing to administer epinephrine after the completion of the training.

School personnel volunteering to be trained in administering auto-injectable epinephrine should also receive instruction and maintain current certification in cardiopulmonary resuscitation (“CPR”) from a recognized provider such as the American Red Cross or the American Heart Association.

### **Training Requirements**

Training for the administration of epinephrine auto-injectors will include all of the following:

1. Recognizing causes and symptoms of anaphylaxis
2. Standards and procedures for the storage, restocking, and emergency use of epinephrine auto-injectors
3. Emergency follow-up procedures, including calling 911 and contacting, if possible, the student’s or person’s parents/guardians/family and physician
4. Receive instruction and maintain certification in cardiopulmonary resuscitation (“CPR”)
5. Written materials covering the information provided during the training

## III. DUTIES OF THE DISTRICT NURSE

The District nurse must obtain from an authorizing physician and surgeon a prescription for each school site for epinephrine auto-injectors. At a minimum this includes, for elementary schools, one regular epinephrine auto-injector and one junior epinephrine auto-injector, and for a middle and high school, one regular epinephrine auto-injector. The District nurse is responsible for stocking the epinephrine auto-injector and restocking it if it is used.

If the epinephrine auto-injector is used it must be restocked as soon as reasonably possible but no later than two weeks after it is used and prior to their expiration date.

<b>IV. STANDARDS AND PROCEDURES FOR THE EMERGENCY USE OF EPINEPHRINE AUTO-INJECTORS</b>
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Volunteers will receive comprehensive training in the following areas:

**CAUSES OF ANAPHYLAXIS**

Common causes:	Less common causes:
<input type="checkbox"/> Food (most commonly - peanuts, walnuts, pecans fish, shellfish, eggs, milk, soy, and wheat) <input type="checkbox"/> Medication <input type="checkbox"/> Insect stings <input type="checkbox"/> Latex	<input type="checkbox"/> Exercise <input type="checkbox"/> Food-dependent, exercise-induced anaphylaxis (occurs when a person eats a specific food and exercises within three to four hours after eating) <input type="checkbox"/> Idiopathic anaphylaxis (anaphylaxis with no apparent cause)

**SYMPTOMS THAT MAY OCCUR DURING ANAPHYLAXIS**

The severity of symptoms can change quickly. Symptoms may begin within several minutes to two hours after exposure to the allergen.

- **Mouth:** Itching, tingling, or swelling of lips, tongue, and mouth
- **Skin:** Hives, itchy rash, swelling on the face or extremities
- **Gut:** Nausea, abdominal cramps, vomiting, diarrhea
- **General:** Panic, sudden fatigue, chills, feeling of impending doom

**POTENTIALLY LIFE-THREATENING SYMPTOMS THAT MAY OCCUR**

- **Throat:** Tightening of throat, hoarseness, hacking cough
- **Lung:** Shortness of breath, repetitive coughing, wheezing
- **Heart:** Weak pulse, passing out, fainting, turning pale or blue

**If reaction is progressing, several of the above body systems may be affected.**

The most dangerous symptoms include breathing difficulties and a drop in blood pressure, causing shock. (Note: Volunteers are not expected to measure and determine a rate of drop in blood pressure as part of epinephrine administration training.)

Anaphylaxis is likely when any ONE of the criteria below is fulfilled:

Acute onset of an illness (symptoms may begin within several minutes to two hours after exposure to the allergen) with involvement of skin/mucosal tissue, such as:

- Hives
- Generalized itch/flush
- Swollen lips/tongue/uvula

*AND*

Airway compromise, such as:

- Dyspnea (trouble getting air)
- Wheeze/Broncho-spasm
- Stridor (high-pitched breathing noises)

*OR*

Associated symptoms, such as:

- Reduced Blood Pressure (weak pulse)
- Hypotonia (decreased muscle tone)
- Syncope (fainting)
- Pallor (skin and face color)
- Dizziness
- Abdominal Pain/Vomiting

Sometimes hypotension can occur after exposure to known allergen for that patient (symptoms may begin within several minutes to two hours after exposure to the allergen).

- Infants and children: low systolic BP (age-specific) or >30% drop in systolic BP
- Adults: systolic BP, 100 mm Hg or >30% drop from their baseline

**Important Note:** 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 American Academy of Allergy, Asthma, and Immunology (“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." (AAAAI, Position Statement, Anaphylaxis in Schools, and Other Child-Care Setting)

### **STANDARDS AND PROCEDURES FOR THE EMERGENCY USE OF AN EPINEPHRINE AUTO-INJECTOR:**

1. Determine if anaphylaxis is reasonably suspected. If there is a reasonable probability that anaphylaxis is occurring, or about to occur, then treat the situation like an anaphylactic emergency.
2. **Do not leave the student or person alone.** Call 911 and then follow the district’s policies and procedures for medical emergencies. Paramedics, the school nurse, the

student's or person's parents/guardians/family and appropriate school administrator(s) should be notified immediately.

3. Most severe allergic reactions in students primarily involve trouble breathing. Students will likely need to sit calmly and upright as they are treated for their breathing problems.
4. If there is evidence of faintness, loss of consciousness or confusion, lay the student or person flat.
  - However, if the student or person is vomiting, do not lay the student or person flat. The student or person should be positioned on their side, so that they do not choke.
5. Prepare to administer auto-injectable epinephrine:
  - \* Have the student or person sit down
  - \* Reassure the student or person
  - \* Check the auto-injector for expiration date and color. (To be effective, the solution in the auto-injector should be clear and colorless)
6. Epinephrine Auto-injector Administration Procedure:
  - Grasp the auto-injector in one hand and form a fist around the unit. With the other hand, pull off the safety cap. (To avoid injecting yourself after removing the cap, never place your own finger or hand over either end of the device).
  - Hold the tip of the auto-injector near the student's or person's outer thigh. (The auto-injector can be injected through the clothing, if necessary).
  - Press firmly and press the tip into the OUTER THIGH so that the auto-injector is perpendicular (at a 90 degree angle to the thigh). You may hear a click.
  - Hold the auto-injector firmly in place for 10-15 seconds. (After the injection, the student or person may feel his or her heart pounding. This is a normal reaction.)
  - Remove the auto-injector from the thigh and massage the injection area for several seconds.
  - Give the expended auto-injector to the paramedics when they arrive
  - Call 911, if not previously called.
  - Call for the school nurse, parents, family and administrator(s) if not previously called.

**NOTE:** If the anaphylactic reaction is due to an insect sting, remove the stinger (if there is one) as soon as possible after administering the auto-injector. Remove the stinger quickly by scraping with a fingernail, plastic card, or piece of cardboard. Apply an ice pack to the 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 student.*

7. Observe the student or person. In some circumstances a second administration of epinephrine may be necessary.
8. Monitor the student's or person's airway and breathing. If trained in CPR, begin CPR immediately if indicated.
9. When the emergency responders arrive, inform them of the time epinephrine was administered and the dose administered. Give the expended auto-injector to the paramedics.
10. If the person who received the epinephrine is a student in the school district or a staff member employed by the district, follow procedures in accordance with district policies regarding the care of students or staff members during emergencies and documentation of the event.

#### V. EMERGENCY FOLLOW-UP PROCEDURES

**Any person who receives epinephrine should be transported to a hospital emergency room, even if symptoms appear to have subsided.** Severely allergic people who have experienced anaphylaxis may need emergency respiratory care, cardiac care, or even resuscitation if they stop breathing. At a minimum, these people will need professional care to determine whether additional epinephrine, steroids, antihistamines, or other treatment is required. Follow-up diagnosis and care by health care professionals after the administration of epinephrine is important for recovery. A delayed or secondary reaction may occur. Therefore, the person needs to remain under medical supervision for at least four hours after an episode of anaphylaxis.

#### VI. STORAGE OF EPINEPHRINE AUTO-INJECTORS

Epinephrine auto-injectors should be stored at room temperature until the marked expiration date, at which time the unit must be replaced. 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) or 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.

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

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