

LOS ANGELES UNIFIED SCHOOL DISTRICT
Office of the Chief Medical Director
District Nursing Services

**EMERGENCY TREATMENT OF ANAPHYLAXIS
EPINEPHRINE AUTO-INJECTOR**

I. GENERAL GUIDELINES

A. PURPOSE

1. To counteract the adverse reaction to an allergen.
2. To provide immediate treatment and access to emergency medical care.

B. GENERAL INFORMATION

1. Anaphylaxis – A severe, systemic, potentially life threatening allergic reaction affecting multiple body systems.
2. Anaphylactic reaction can occur immediately or be delayed up to two hours or more after exposure. In some cases, symptoms resolve, then recur 8 to 12 hours later (biphasic reaction) and can be more severe.
3. **Causes of Anaphylaxis** may include, but are not limited to:
 - a. Stinging insects – wasps, yellow jackets, hornets, bumble bees, honeybees.
 - b. Foods, especially high-protein foods – most common: seafood (shellfish, fish), nuts (especially peanuts), fruit, wheat, milk, eggs, soy and food additives.
 - c. Air inhalants – pollens, mold, animal dander or secretions, house dust mites.
 - d. Medications.
 - e. Latex – commonly found in occupational therapy elastic bands, balloons, rubber balls or toys, art supplies, science supplies (e.g. microscope eye pieces, pencil erasers, computer mousepads, gloves, tapes, elastic bandages).
 - f. Chemicals.
 - g. Exercise and idiopathic causes (unknown reason)
4. Signs and Symptoms of Anaphylaxis:
 - a. **Mouth:** Itching, tingling, or swelling of lips, tongue, or mouth.
 - b. **Skin:** Itching or burning, hives, rash, swelling of face or extremities, flushing.
 - c. **Stomach:** Nausea, abdominal cramps, vomiting, diarrhea.
 - d. **Throat:** Tightening of throat, hoarseness or change of voice, hacking or repetitive coughs.

- e. **Lung:** Shortness of breath, wheezing, chest pain/tightness, nasal flaring or complaints of not being able to “catch my breath”.
 - f. **Heart:** Weak or thread pulse, low blood pressure, paleness, blueness, general body weakness, dizziness, fainting/unconsciousness.
 - g. **Other:** Localized or general body swelling apprehension, anxiety, red/itchy/watery eyes, excessive sneezing, nasal congestion.
- 5. Allergic reactions may also be delayed and present as joint pain, aches and/or localized inflammation days after exposure. In these cases, the student should be referred to their licensed healthcare provider.
 - 6. Epinephrine is the most effective treatment of anaphylaxis. A common side effect is an increased heart rate and slight tremor.
 - 7. There are no contraindications to the use of epinephrine for life-threatening allergic reactions. An antihistamine, corticosteroid or bronchodilator may be prescribed to further reduce symptoms after emergency treatment.
 - 8. Epinephrine cartridge window should be examined periodically to ensure that the solution is colorless, contains no floating particles and has not expired. Solutions that are discolored, contain particles or are expired must be replaced.
 - 9. Call 911 for all individuals who receive Emergency Epinephrine.**
 - 10. The school nurse in collaboration with the healthcare provider, the school staff, parents, and student develops an emergency care plan.

C. PERSONNEL

- 1. School nurse.
- 2. Designated and trained school personnel with current CPR certification under indirect supervision of the school nurse.

D. EQUIPMENT

- 1. Provided by parent:
 - a. Epinephrine Auto-Injector(s) i.e. EpiPen and EpiPen Jr. Auto-Injector(s)
 - b. Other prescribed medications.
 - c. Antiseptic wipes if ordered (e.g. alcohol wipes)
- 2. Provided by the school:
 - a. Disposable non-latex gloves
 - b. Sharps container

II. PROCEDURE

ESSENTIAL STEPS	KEY POINTS AND PRECAUTIONS
<p>1. Determine whether the student has signs or symptoms of anaphylaxis</p>	<p>Stay with the student. Remain calm and reassure student. Calming reduces distribution of allergen in the body. Student is not to be moved unless in immediate danger. Lay student down if tolerated, with lower extremities elevated.</p>
<p>2. Ask for HELP Direct other adult to call 911 emergency services immediately.</p>	<p><u>Obtain medication from storage location</u> if student does not carry the medication. Notify school administrator and school nurse. School nurse or school administrator will notify the parent.</p>
<p>3. If able, wash hands and put on disposable gloves.</p>	<p>Hand sanitizer may be used, if water is not available.</p>
<p>4. Administer Epinephrine Auto-Injector</p> <ol style="list-style-type: none"> a. Open and remove the EpiPen from the carrier tube. b. Tip and slide the Auto-Injector from the carrier tube. c. Grasp EpiPen with fist around unit with the orange tip facing downward. d. Pull off the BLUE Safety Release Cap without bending or twisting it. e. Firmly push the orange tip against the middle outer thigh (90 degree angle) until it clicks. f. HOLD firmly in place against the thigh for 10 seconds to deliver the medicine. g. Remove the auto-injector from the thigh. h. Massage the injection site for 10 seconds. i. Place EpiPen, needle first back into carrier tube. 	<p>Epinephrine acts immediately, but the effects last only 15-20 minutes. Student may feel heart pounding. This is normal. Do NOT remove safety cap release until ready to use auto-injector. EpiPen can be injected through clothing. Never put thumb, fingers, or hand over the tip of auto-injector. The orange tip will extend to cover the needle. Place used auto-injector back in the carrier tube. Note the time Epinephrine was given and vital signs if taken.</p>

ESSENTIAL STEPS	KEY POINTS AND PRECAUTIONS
<p>5. While waiting for Paramedics:</p> <ol style="list-style-type: none"> Stay with the student and observe for signs of shock. Cover the student with blanket as needed to maintain normal body temperature. Monitor airway and breathing. Verify that 911 emergency services has been called. Provide CPR if needed. If trained, take vital signs. 	<p>Signs of Shock are:</p> <ul style="list-style-type: none"> Rapid, shallow breathing Cold, clammy skin Rapid, weak pulse Dizziness, fainting, or weakness
<p>6. If the student self-administers EpiPen, trained school personnel need to be notified IMMEDIATELY after self-administration of medication. Call “911” Emergency services.</p>	<p>School personnel are to remain with student and contact school nurse and site administrator.</p>
<p>7. If the reaction is the result of an insect sting, after administering the medication, remove stinger by scraping sideways with a fingernail or a flat, firm object, such as a credit card. Ice pack may be applied to the affected area.</p>	<p>Do NOT push, pinch, or squeeze the stinger area. This may cause more venom to be released.</p>
<p>8. Paramedics may administer additional epinephrine when they arrive.</p>	<p>Expend auto-injector in the carrier tube is given to paramedic. Provide written information: Dose, route, time(s) of medication administration, vitals if taken and all information regarding exposure to allergen and student’s reaction. A copy of emergency card maybe given to paramedics.</p>

ESSENTIAL STEPS	KEY POINTS AND PRECAUTIONS
9. Document information on the student's electronic health record. Document on iSTAR – Incident Report Online	Individual who does not have access to the electronic record must document on paper log (See attachment A.) Site Administrator/School Nurse initiate iSTAR report. School Nurse will provide follow-up report outcome to the site administrator and review the incident report form.

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Date



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REFERENCES:

California School Nurses Organization. The Green Book: California Guidelines for Specialized Physical Healthcare Procedures in School Settings, Section 3, 2nd Edition (4/11). Sacramento, CA.

California Department Of Education - Health Services and School Nursing

<http://www.cde.ca.gov/ls/he/hn/epiadmin.asp>

<http://www.uptodate.com/contents/use-of-an-epinephrine-autoinjector-beyond-the-basics>