

PROTOCOL FOR EMERGENCY ADMINISTRATION OF EPINEPHRINE IN SCHOOL

Written by the Arizona Department of Health Services
in consultation with the Arizona Department of Education
Authorized by ARS § 15-157 and Arizona Administrative Code R7-2-809

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- A Power Point Presentation as curriculum for the minimum standard of training to be used to teach school staff about anaphylaxis and auto-injector epinephrine.

Reasons for Having Non-individual Auto-injectable Epinephrine Available in Public Schools

Anaphylaxis is a potentially life-threatening medical condition occurring in allergic individuals after exposure to things such as certain foods, medicines, latex, or an insect sting. Anaphylaxis refers to a collection of symptoms affecting multiple systems in the body. The most dangerous symptoms include breathing difficulties and a drop in blood pressure or shock that are potentially fatal. Epinephrine is the drug of choice for treatment of anaphylaxis, and should be given as soon as possible at the onset of symptoms.

If there were to be a student, a staff member, or other adult who developed symptoms of anaphylaxis at school, there would be a delay before paramedics or ambulance staff could arrive. Therefore, having school staff trained in recognizing anaphylaxis and quickly giving epinephrine may be life-saving. Students who have been identified as being at risk for an allergic reaction should have their own auto-injector of epinephrine at school. However, some students or adults at school may have their first anaphylactic reaction in a school setting.

[Arizona Revised Statute \(ARS\) § 15-157](#) allows trained individuals under a standing order to administer auto-injectable epinephrine to a child or adult at a public school or a school-sponsored activity. [Arizona Administrative Code \(AAC\) R7-2-809](#) describes the responsibility of Arizona public school districts and charter schools to stock auto-injectable epinephrine on site at school, the training required by those designated to administer epinephrine in an emergency setting, and the procedures for its administration.

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Program for School Districts and Charter Schools to Have Auto-injectable Epinephrine for Emergency Administration

- Arizona Revised Statute (ARS) § 15-341, A, 34 (a) permits pupils who have been diagnosed with anaphylaxis by a licensed health care provider to carry and self-administer emergency medications, including auto-injectable epinephrine, while at school and at school-sponsored activities.
- ARS § 15-157 and AAC R7-2-809 adds to ARS § 15-341 by requiring that each school district and charter school should designate at least two school personnel, in addition to any school nurse or athletic trainer, to receive annual training in the proper administration of auto-injectable epinephrine to a pupil or an adult who shows symptoms of anaphylaxis while at school or at school-sponsored activities pursuant to a standing order.
- The annual training to school staff of emergency administration of epinephrine and recognizing anaphylaxis should be conducted by a regulated health care professional, whose competencies include the recognition of symptoms of anaphylaxis, the procedures to follow when anaphylaxis occurs, and the administration of auto-injectable epinephrine. These regulated health care professions would include but are not limited to a licensed school nurse, a certified emergency medical technician, or a licensed athletic trainer.
- Each school district or charter school should obtain a standing order for obtaining non-individual specific auto-injectable epinephrine and for emergency administration of epinephrine by designated trained personnel from its designated school district physician or charter school physician who is a doctor of medicine licensed pursuant to title 32, chapter 13, a doctor of osteopathic medicine licensed pursuant to title 32, chapter 17, a nurse practitioner licensed pursuant to title 32, chapter 15 or a physician assistant licensed pursuant to title 32, chapter 25. If no such individual is available in order to provide a standing order, the standing order would be obtained from the chief medical officer of the school's county health department, or from the chief medical officer of the Arizona Department of Health Services.
- The standing order for auto-injectable epinephrine should be renewed annually and upon the change of any designated school district physician, charter school physician, chief medical officer of the county health department, or chief medical officer of the Arizona Department of Health Services.
- School districts and charter schools should maintain and make available upon request an up-to-date list of those school personnel authorized and trained to administer auto-injectable epinephrine pursuant to a standing order.
- All school districts and charter schools should have a written plan specific to their own school to adopt procedures for the emergency administration of auto-injectable epinephrine by designated trained personnel. School districts and charter schools may wish to have a policy that if the parents/guardians of a child with a known risk of anaphylaxis do not provide a specific auto-injector epinephrine for their child, and the school supply of epinephrine has to be used for their child, that the parent/guardian should reimburse the school for the cost of replacing the epinephrine.

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Obtaining and Maintaining a Stock of Auto-injectable Epinephrine in Schools

- In addition to the auto-injectors of epinephrine that parents/guardians provide to a school for their child who is known to be at risk for anaphylaxis, each school district and charter school shall stock at least two juvenile doses (0.15 mg) and two adult doses (0.3 mg) of auto-injectable epinephrine at each school pursuant to standing order if sufficient monies are appropriated by the legislature each year.
- In addition to the auto-injectors of epinephrine that parents/guardians provide to a school for their child who is known to be at risk for anaphylaxis, each school district and charter school may stock at least two juvenile doses and two adult doses of auto-injectable epinephrine at each school pursuant to standing order if sufficient monies are not appropriated by the legislature during any fiscal year to provide for the purchase of the auto-injectable epinephrine.
- Each fiscal year the Arizona Department of Education is to include in its budget request for assistance to schools a separate line item for a continuous, nonlapsing appropriation to fund the requirements of ARS § 15-157 to provide a supply of auto-injectable epinephrine in all Arizona schools.
- Auto-injectable epinephrine that is needed for a school to comply with ARS § 15-157 would be purchased from a pharmacy or a pharmaceutical supply company using the signed standing order from the designated physician.
- The auto-injectable epinephrine should be stored at room temperature and in a secure, unlocked, easily accessible location at school district and charter schools.
- A list of the people authorized to administer auto-injectable epinephrine by standing order should be stored next to the school's supply auto-injectable epinephrine. The list should also be maintained in the school's administrative offices and made available upon request.
- Do not refrigerate auto-injectable epinephrine. The optimal temperature to store auto-injectable epinephrine is between 68°-77° F. (with an acceptable range of 59°-86° F). Keep epinephrine auto-injectors protected from excessive heat or cold. The auto-injectors should be covered and protected from light.
- Each school should document monthly that they have checked to ensure that the auto-injector epinephrine is being properly stored, that the epinephrine solution is clear, that there are no particles in the solution, and that the expiration date has not been passed. If the solution is discolored or if it contains a precipitate, the auto-injector should be replaced. The epinephrine auto-injectors should be replaced before their expiration date.

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Annual Training for All School Site Personnel in Recognizing Symptoms of Anaphylaxis

- Each school district and charter school should require that all school site personnel receive an annual training on the recognition of anaphylaxis and procedures to follow when anaphylaxis occurs or is suspected.
- The training on the recognition of symptoms of anaphylaxis and appropriate procedures should be conducted by a regulated health care professional, whose competencies include the recognition of the symptoms of anaphylaxis, and the procedures to follow when anaphylaxis occurs. The regulated health care professional includes but is not limited to a licensed school nurse, a certified emergency medical technician, or a licensed athletic trainer.

Annual Training of School Site Personnel who Are Authorized to Administer Auto-injectable Epinephrine

- The school district or charter schools should select at least two school site personnel per school, in addition to the school nurse or licensed athletic trainer, to receive an annual training in the recognition of anaphylaxis symptoms and procedures to follow when anaphylaxis occurs, so that they would be able to administer epinephrine by auto-injector to someone suspected of having anaphylaxis .
- Annual training should be conducted by a regulated health professional whose competencies include the recognition of the symptoms of anaphylaxis and procedures to follow when anaphylaxis is suspected, including but not limited to a licensed school nurse, certified emergency medical technician, or licensed athletic trainer.
- The school site personnel who are trained to administer auto-injector epinephrine should read and understand the auto-injector epinephrine instructions. In addition, they should watch a training video from the manufacturer's website on how to administer epinephrine by auto-injector.

Signs and Symptoms of Anaphylaxis (only a few may be present)

- Hives, itchy rash and/or swelling about the face, body or extremities
- Flushing and/or swelling of the face
- Itching around the eyes, redness and swelling of the eyes, and tearing of the eyes
- Itching and/or swelling of the lips, tongue or back of the throat
- Itching and /or sense of tightness in the throat, hoarseness, difficulty breathing and/or swallowing
- Itching of the outer ear canals
- Shortness of breath, repetitive coughing and /or wheezing, chest tightness, harsh high-pitched breathing (stridor)
- Weak pulse, low blood pressure
- Light headedness, feeling faint, fainting, collapse
- Nausea, abdominal cramps, vomiting
- Distress, anxiety and a sense of dread

The most dangerous symptoms of anaphylaxis include breathing difficulties and a drop in blood pressure or shock that are potentially fatal.

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Process of Administering Auto-injectable Epinephrine to a Person with Symptoms of Anaphylaxis

- Have trained school personnel evaluate the person and decide if the person's symptoms indicate possible anaphylaxis.
- Call 911 when anaphylaxis is suspected.
- While the person is being evaluated for symptoms of possible anaphylaxis, obtain auto-injector epinephrine. Students who have been prescribed epinephrine by auto-injector and who have their own auto-injector at the school or at a school-sponsored event should use or be given their own auto-injector epinephrine. Obtain epinephrine from the school supply for a child or an adult who do not have a supply of their own auto-injector epinephrine.
- If it is decided that the patient may have anaphylaxis, a trained and authorized person should select the appropriate dosage of auto-injectable epinephrine to administer pursuant to a standing order, and administer epinephrine via auto-injector according to the standing order (0.3mg dose if the estimated weight is 66 pounds or above; 0.15mg dose if the estimated weight is 33-66 pounds).
- When possible, have the person with suspected anaphylaxis lie down with their legs elevated until the emergency responders arrive. Maintain the person in a position that is most comfortable for breathing.
- Advise school health personnel and school administration of the incident.
- If needed, repeat the epinephrine dose pursuant to a standing order if the symptoms persist and the emergency responders have not arrived.
- Once the emergency responders have arrived, inform them about the incident, the reasons for giving epinephrine, and the person's response to the epinephrine. Give them the used epinephrine auto-injector labeled with the person's name, date and time administered.
- Notify a student's parents/guardians of the incident and ask them to promptly alert the student's primary care doctor of the incident.
- Write down the date and time that the auto-injector epinephrine was given, the name of the recipient, and the name of the person giving the epinephrine. If two doses need to be given, write down the time that each were given.
- The person who receives epinephrine may have the following side effects: moderate anxiety; apprehensiveness; restlessness; tremor; shakiness; weakness; dizziness; sweating; heart-pounding; paleness; pallor; nausea and vomiting; and/or headache.
- Even if the person improves after receiving epinephrine, he/she still needs to be taken for urgent medical evaluation since the symptoms of anaphylaxis may recur.

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Actions after a Person Is Given Epinephrine

- Describe the event, the rationale for giving epinephrine, the person's response to the epinephrine, who was involved in the event, the timing of notifications to emergency responders, school administration, student's parents/guardians, and the physician who issued the standing order.
 - Document the date and time(s) that the auto-injector epinephrine was given, the name of the recipient, and the name of the person giving the epinephrine.
 - Complete a written documentation of the incident, detailing who administered the injection, the rationale for administering the injection, the approximate time of the injection(s), and notifications made to school administration, emergency responders, the student's parents/guardians, and the doctor or chief medical officer who issued the standing order.
 - Order replacement dose(s) of auto-injectable epinephrine.
 - The school and school district should review the incident involving emergency administration of epinephrine to determine the adequacy of response.
 - All school districts and charter schools shall report to the Arizona Department of Health Services all incidents of use of auto-injectable epinephrine using the school supply of epinephrine by filling out a form that can be downloaded from the Arizona Department of Health's website at <http://www.azdhs.gov/audiences/index.php#schools-home>.
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PROPOSED TEMPLATE FOR STANDING ORDERS FOR AUTO-INJECTABLE EPINEPHRINE IN A SCHOOL SETTING

- According to Arizona Revised Statute § 15-157, have the _____ school located at _____ obtain two auto-injectors of epinephrine of 0.15 mg, and two auto-injectors of epinephrine of 0.3 mg.
- Replace the epinephrine auto-injectors m before their expiration date or when they have been used.
- This signed standing order will serve as a prescription for obtaining epinephrine auto-injectors for the specified school.
- Keep the epinephrine auto-injectors at room temperature in a safe, easily accessible location. The best temperature is between 68°-77° F., with an acceptable range of 59°-86° F. Do not refrigerate auto-injectable epinephrine. Keep the auto-injectable epinephrine injectors covered and protected from light. Discard and replace the auto-injector epinephrine if the clear fluid becomes discolored or there are particles in the liquid.
- When a person has symptoms that could possibly be anaphylaxis, immediately obtain assistance from the school health office personnel and/or other personnel who have been trained in evaluating for anaphylaxis and administering auto-injector epinephrine.
- School personnel who have been trained in recognizing the symptoms of anaphylaxis should evaluate whether the person has symptoms that could be anaphylaxis.
- Have someone call 911 to obtain emergency medical assistance if a person is suspected to have symptoms of anaphylaxis.
- If anaphylaxis is suspected, obtain auto-injector epinephrine from the school supply, or from the student's own supply at school. Students who have been prescribed epinephrine by auto-injector and who have their auto-injector at the school or at a school-sponsored event should use or be given their own auto-injector epinephrine, when possible.
- Maintain the ill person in a position that is most comfortable for their breathing. When possible, have the person who may have anaphylaxis lying down with their legs elevated.
- When a school staff member who has been trained and is authorized to administer auto-injectable epinephrine decides that the person may have anaphylaxis, the school staff member may administer epinephrine as described below.
- If the estimated weight of the ill person is 30 kg or above (**66 pounds or above**), give an auto-injectable epinephrine dose of 0.3 mg into the person's anterolateral thigh.
- If the estimated weight of the ill person is 15 kg-30 kg (**about 33-66 pounds**), give an auto-injectable epinephrine dose of 0.15 mg into the person's anterolateral thigh.
- If necessary, the epinephrine injection may be administered through a thin layer of clothing. There is no need to clean the site with alcohol before injection.
- Remove the auto-injector epinephrine safety cap when ready to inject.
- Identify the proper site for injection which is the patient's outer thigh, midway between hip and knee.
- Jab the injector firmly against the patient's thigh at a 90 degree angle.
- Hold the injector in place until the medication is injected (count to 10).
- Document the time of injection, the site of injection, and the person's response to epinephrine.

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- If the person has not responded to epinephrine after 10-20 minutes, and emergency response personnel have not yet arrived, repeat a second dose of auto-injectable epinephrine of 0.3 mg (for patients whose estimated weight is 66 pounds or more) or 0.15 mg (for patients with estimated weight between 33-66 pounds).
- Do not administer more than two epinephrine doses of 0.3 mg or 0.15 mg (according to the estimated weight).
- If the person has asthma, use of the person's own inhaler for treating respiratory distress is not contraindicated, but is not a substitute for quickly giving epinephrine by auto-injector.
- Give the used auto-injectors to emergency response personnel with the time and date that they were used and the patient's name written on the injector. Do not discard auto-injectors into regular trash.
- Notify family members, school administrators, and the physician who signed the standing orders about the event and document the time that they were notified.
- Complete a written documentation of the incident, detailing who administered the injection, the rationale for administering the injection, the approximate time of the injection(s), and notifications made to school administration, emergency responders, the student's parents/guardians, and the doctor or chief medical officer who issued the standing order.
- Report to the Arizona Department of Health Services about the event on the form from the Arizona Department of Health's website at <http://www.azdhs.gov/audiences/index.php#schools-home>.
- Reorder auto-injector epinephrine to replace the dose(s) that were used.

Provider's Signature

Date

Provider's Address

Provider's Telephone Number

Name of school where supply of auto-injector epinephrine will be located.

Address of school

Telephone number of administrative office of school

Telephone number of health office of school

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References

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<https://www.azleg.gov/viewdocument/?docName=https://www.azleg.gov/ars/15/00157.htm>
2. Arizona Administrative Code R7-2-809 https://apps.azsos.gov/public_services/Title_07/7-02.pdf
3. Adrenaclick® 0.3 mg and 0.15 mg
Package insert: <http://adrenaclick.com/pdf/Prescribing-Information.pdf>
Website:
http://adrenaclick.com/what_is_adrenaclick_epinephrine_injection_USP_auto_injector.php
How to Use Adrenaclick:
http://www.adrenaclick.com/how_to_use_adrenaclick_epinephrine_injection_USP_auto_injector.php
Impax epinephrine injection, USP auto-injector (generic Adrenaclick) 0.3 mg and 0.15 mg
Drug label information: <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=e13f05f1-7d21-49bb-b8d5-24bf9301c3d7&audience=professional>
Impax epinephrine website: <http://epinephrineautoinject.com>
4. Auvi-Q® 0.3 mg and 0.15 mg
Package insert: <https://dailymed.nlm.nih.gov/dailymed/fda/fdaDrugXsl.cfm?setid=6180fb40-7fca-4602-b3da-ce62b8cd2470&type=display>
Website: <http://www.auvi-q.com>
5. EpiPen® (0.3mg) and EpiPen Jr® (0.15 mg)
Package insert: <http://www.fda.gov/Safety/MedWatch/SafetyInformation/Safety-RelatedDrugLabelingChanges/ucm122970.htm>
Website: <https://www.epipen.com/en>
Mylan epinephrine injection, USP Auto-Injectors (generic EpiPen®) 0.3 mg and 0.15 mg
<https://www.epipen.com/en/about-epipen-and-generic/what-is-an-authorized-generic>
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9. Arizona Resource Guide for Supporting Children with Life-Threatening Food Allergies.
<https://www.azdhs.gov/documents/prevention/azwic/food-allergies-resource-guide.pdf>

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