

# **Administration of Epinephrine**

## **Lesson Plan 1**

**FIRE FIGHTER 1**

**LESSON PLAN #1**

**TOPIC:** Administration of Epinephrine  
**LEVEL:** Emergency Medical Assistant Basic (EMT-B)  
**TIME:** 15-20 Minutes

**BEHAVIORAL OBJECTIVES:**

**Psychomotor**

**Audience:** EMT-B  
**Behavior (Performance):** Will administer a single dose of epinephrine  
**Condition:** Given a simulated patient, a single dose of Epinephrine (EPIPEN® trainer), gloves, alcohol swabs, sharps container  
**Degree (Standard):** Accomplish all 15 operational steps within 60 seconds as per \_\_\_\_\_ Emergency Medical Services Patient Care Guidelines for Basic Life Support

**Cognitive**

**Audience:** EMT-B  
**Behavior (Performance):** will verify cognitive knowledge by successfully passing a written test  
**Condition:** Given a course study guide  
**Degree (Standard):** By achieving a minimum score of 80%

**REFERENCES:** \_\_\_\_\_ **Emergency Medical Services Patient Care Guidelines for Basic Life Support 2007**

**MATERIALS NEEDED:**

- One (1) EPIPEN® for illustration purposes
- Two (2) EPIPEN® trainers for practice
- One (1) Sharps container
- Six (6) Alcohol swabs
- One (1) box of gloves
- One (1) Communication tool (cell phone or radio)
- One (1) Simulated patient
- One (1) Projectable media
- One (1) Non-projectable media
- Two (2) Sets of handouts
- One (1) Class roster
- One (1) Stop watch
- Two (2) Manipulative Performance tests
- Two (2) Cognitive tests
- One (1) Answer Key for cognitive test

**PREPARATION (Step One):**

Consistent with **House Bill 1317** passed by the **57<sup>th</sup> Legislature 2001**, all EMTs will have preloaded epinephrine auto injectors (EPIPEN® auto injector).

The EMT may administer epinephrine to:

1. Patients greater than 18 with prescription
2. Patients less than 18 with patient, parental, or guardian providing written or oral consent/request
3. Patient greater than 18 and no previous prescription, or less than 18 and no patient, parent or guardian consent or request. Must call for permission from online Medical Control.

**Dosages:**

Adult (30 kg or 66 lbs and heavier):  
EpiPen® auto injector = **0.3 mg**

Child (under 30 kg or 66 lbs):  
EPIPEN® auto injector = **0.15 mg**

Always request paramedics because, in rare cases, a single dose of epinephrine may not be enough. The patient may continue to have hypotension, along with a decreasing level of consciousness, and/or increasing breathing difficulty. If the patient's condition does not improve, consult online Medical Control about injection of a second dose.

**Safety Considerations:**

Rescuer shall wear proper PPE which includes gloves and eye protection. When administering the EPIPEN® do not place your thumb over the end of the pen.

**PRESENTATION (Step 2):**

<b>OPERATIONAL STEPS</b>	<b>KEY POINTS</b>
1. Request Medic unit	
2. Explain procedure to patient	
3. Don personal protective equipment	3a. Gloves and eye protection
4. Check EPIPEN® dose and match to patient's size	4a. 0.3 mg for adults
5. Check EPIPEN® expiration date	4b. 0.15 mg for children
6. Check for cloudiness and/or discoloration	
7. If exposed, wipe patient's thigh with alcohol swab	
8. Remove safety GREY cap and locate injection site on lateral thigh	
9. Place BLACK tip of EPIPEN® against patient's thigh	9a. Do not place thumb over the end of EPIPEN®
10. Push hard against patient's thigh until EPIPEN® activates	10a. Note time of administration
11. Hold EPIPEN® in place for 10 seconds	
12. Remove EPIPEN® and massage patient's thigh for 10 seconds	
13. Dispose of EPIPEN® into biohazard (sharps) container	
14. Reassure patient	
15. Update en-route Medic unit	

**APPLICATION (Step 3):**

Manipulative Performance Test EpiPen® Auto Injector			
<b>Objective</b>	Administer a single dose of epinephrine within 60 sec. completing all 15 operational steps as per the Patient Care Guidelines for Basic Life Support		
<b>EMT's Name</b>		<b>Date</b>	
<b>Instructions</b>		<b>Points possible</b>	<b>Points achieved</b>
1. Request Medic unit		1	
2. Explain procedure to patient		1	
3. Don personal protective equipment (gloves & goggles)		1	
4. Check EpiPen® dose and match to patient's size		1	
5. Check EpiPen® expiration date		1	
6. Check EpiPen® for cloudiness and/or discoloration		1	
7. If exposed, wipe patient's thigh with alcohol swab		1	
8. Remove safety GREY cap from EpiPen®		1	
9. Place BLACK tip of EpiPen® against patient's (lateral) thigh		1	
10. Push hard against patient's thigh until EpiPen® activates		1	
11. Hold EpiPen® in place for 10 seconds		1	
12. Remove EpiPen® and massage patient's thigh for 10 seconds		1	
13. Dispose of EpiPen® into biohazard container		1	
14. Reassure patient		1	
15. Update en-route Medic unit		1	
<b>TOTAL SCORE</b>		<b>15</b>	
<b>Start Time</b>	:	<b>Stop Time</b>	:
		<b>Total Time</b>	:
<b>Comments:</b>		<b>PASS</b>	<b>FAIL</b>
<b>Evaluator's Name &amp; Signature:</b>			

# MANIPULATIVE PERFORMANCE TEST SHEET

Manipulative Performance Test EpiPen® Auto Injector				
<b>Objective</b>	Administer a single dose of epinephrine within 60 sec. completing all 15 operational steps as per the Patient Care Guidelines for Basic Life Support			
<b>EMT's Name</b>		<b>Date</b>		
<b>Instructions</b>		<b>Points possible</b>	<b>Points achieved</b>	
1. Request Medic unit		1		
2. Explain procedure to patient		1		
3. Don personal protective equipment (gloves & goggles)		1		
4. Check EpiPen® dose and match to patient's size		1		
5. Check EpiPen® expiration date		1		
6. Check EpiPen® for cloudiness and/or discoloration		1		
7. If exposed, wipe patient's thigh with alcohol swab		1		
8. Remove safety GREY cap from EpiPen®		1		
9. Place BLACK tip of EpiPen® against patient's (lateral) thigh		1		
10. Push hard against patient's thigh until EpiPen® activates		1		
11. Hold EpiPen® in place for 10 seconds		1		
12. Remove EpiPen® and massage patient's thigh for 10 seconds		1		
13. Dispose of EpiPen® into biohazard container		1		
14. Reassure patient		1		
15. Update en-route Medic unit		1		
<b>TOTAL SCORE</b>		<b>15</b>		
<b>Start Time</b>	:	<b>Stop Time</b>	:	<b>Total Time</b>
				:
<b>Comments:</b>			<b>PASS</b>	<b>FAIL</b>
<b>Evaluator's Name &amp; Signature:</b>				

# CLASS ROSTER

SUBJECT: .....

DATE: ..... TIME: .....

STUDENT LEVEL: ..... INSTRUCTOR: .....

RE/CERTIFICATION: ..... LOCATION: .....

	NAME & SIGNATURE	WRITTEN SCORE	PRACTICAL PASS/FAIL
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

**SPECIAL NOTE:** The instructor is responsible for ensuring that the class roster is complete and handed in to the Training Division by the end of the shift.



# EpiPen® AUTO-INJECTOR COGNITIVE TEST QUESTIONS

EMT'S NAME: ..... DATE:.....

**INSTRUCTIONS:** Choose only one answer for each question.

- 1) ..... The correct dose of epinephrine for the "adult" patient is:
  - a)..... 0.03 mg
  - b)..... 0.3 mg
  - c)..... 0.15 mg
  - d)..... 0.05 mg
  
- 2) ..... The correct dosage of epinephrine for the "child" is:
  - a)..... 0.03 mg
  - b)..... 0.3 mg
  - c)..... 0.15 mg
  - d)..... 0.05 mg
  
- 3) ..... When shall a Medic be requested?
  - a)..... Only when the patient becomes unconscious
  - b)..... Before the EpiPen® is administered
  - c)..... Only after the EpiPen® is administered
  - d)..... It is not necessary if an EpiPen® is administered
  
- 4) ..... The EpiPen® Auto-Injector must be held against the patient's lateral thigh for:
  - a)..... 5 seconds
  - b)..... 10 seconds
  - c)..... 15 seconds
  - d)..... 20 seconds
  
- 5) ..... For the rescuer, the most important consideration is to:
  - a)..... Check the EpiPen® Auto-Injector's expiration date
  - b)..... Check the EpiPen® Auto-Injector's dose
  - c)..... Do not hold injector with your thumb over the end
  - d)..... Don personal protective equipment (gloves & goggles)
  - e)..... Both a) and c)
  - f)..... Both c) and d)

# EpiPen® AUTO-INJECTOR

## COGNITIVE TEST ANSWER KEY

EMT'S NAME: ..... DATE:.....

**INSTRUCTIONS:** Choose only one answer for each question.

- 1) ..... The correct dose of epinephrine for the “adult” patient is:
  - a)..... 0.03 mg
  - b)..... 0.3 mg**
  - c)..... 0.15 mg
  - d)..... 0.05 mg
  
- 2) ..... The correct dosage of epinephrine for the “child” is:
  - a)..... 0.03 mg
  - b)..... 0.3 mg
  - c)..... 0.15 mg**
  - d)..... 0.05 mg
  
- 3) ..... When shall a Medic be requested?
  - a)..... Only when the patient becomes unconscious
  - b)..... Before the EpiPen® is administered**
  - c)..... Only after the EpiPen® is administered
  - d)..... It is not necessary if an EpiPen® is administered
  
- 4) ..... The EpiPen® Auto-Injector must be held against the patient's lateral thigh for:
  - a)..... 5 seconds
  - b)..... 10 seconds**
  - c)..... 15 seconds
  - d)..... 20 seconds
  
- 5) ..... For the rescuer, the most important consideration is to:
  - a)..... Check the EpiPen® Auto-Injector's expiration date
  - b)..... Check the EpiPen® Auto-Injector's dose
  - c)..... Do not hold injector with your thumb over the end
  - d)..... Don personal protective equipment (gloves & goggles)
  - e)..... Both a) and c)
  - f)..... Both c) and d)**