

Conducting School-based AED Practice Drills

Introduction:

Doing a practice drill for your cardiac emergency response is the best way to find out if your plan works, to test your communication system and your response team's readiness. The checklist allows you to obtain objective data, and the scenarios provide a realistic framework for your team to work from.

Planning the Practice Drill

When: Some schools do their first drill on a day or time when students are not around—early release, teacher workday, after school, etc. After that it is not usually a problem to do it more realistically during school. You should tell your team that you will be doing a practice drill in the next couple of weeks, so that they may have a chance to review the plan, etc. ahead of time. Then do not tell them exactly when you will do the drill.

Who: The drill will involve your first responder team, your front office staff, and an objective observer (recording the times different things happened on the checklist). Sometimes it works well to use the school nurse as the observer/recorder. This way the team is not looking to her to “run” the response. Before the drill you will want to tell the person designated to make the 911 call that this is a drill only. If classroom teachers are on your response team, there should be a plan for how they are to “cover” their class during an emergency.

What: Choose a scenario from the ones provided, or make one up that fits your school. You will need a manikin with at least a T shirt on, AED trainer, and the checklist on a clipboard. Your AED should be in its usual location.

Where: Use an empty classroom, the back office area, a workroom or the cafeteria or media center when students are not expected to be there.

The Day of the Drill

Place the manikin on the floor, then make a call (or use the intercom) to the front office and tell them you have an unresponsive victim in the _____. At this time your plan should go into effect, with the first responders being notified using the communication plan you have in place (i.e. PA, intercom, walkie-talkie, etc.). Your observer will then begin to record the times each event happens: the call to alert first responders, arrival of first rescuer, time CPR started, how many rescuers came, time AED arrived, time AED placed, time of first shock, etc. When the first rescuer comes in, give him the short scenario, as if you were the witness. When your school AED arrives, hand them the trainer to use, and just encourage them to carry on as if this were a real arrest situation. You might even want to test your all-staff awareness, and have the first person coming into the room react, and initiate the first call.

After the Drill

Congratulate everyone, then take a few minutes to go over the checklist together, checking the times that different stages of the response took. Ask everyone how they felt about it, and discuss any concerns anyone had. Evaluate the checklist and staff response to see if there are any action steps that need to be taken. Were there any communication problems? If the drill indicates any needed changes, discuss these with your response team and administrator, make the changes and communicate them clearly to your team, then plan to have another drill soon to test the new plan.

SCHOOL-BASED AED PROGRAM AED SKILL DRILL SUMMARY CHECKLIST

SCHOOL: _____ **DATE:** _____
TIME DRILL STARTED: _____ **TIME DRILL TERMINATED:** _____

1. Time school staff member discovered victim and called front office _____
2. Time “Code” announcement made by Front Office Staff _____
3. First rescuer to respond (check all that apply):
 - Called for help (vocal)
 - Called for help (phone)
 - Started CPR
 - Ran for help
 - Other _____
4. Time Rescuer 2 arrived on scene _____
5. Time CPR started _____
CPR started by Rescuer 1? Yes No, CPR performed by _____
Did rescuers switch off CPR role every 2 min.? Yes No
6. How many people (total) responded to scene? _____
7. School’s Resource Officer or Administrator arrived? Yes, Time _____
 No
8. Time AED sent for _____
Time AED arrived at scene _____
Time AED attached to victim _____
Time of first shock _____
Person who performed AED functions _____
9. Staff member sent to front of school to await/direct EMS? Yes, Time _____
 No

QUESTIONS

- *What did the rescuers do right?* _____
- *What could the rescuers do better?* _____
- *What was easy to remember to do?* _____
- *What was hard to remember to do?* _____

COMMENTS

SCHOOL-BASED AED PROGRAM

AED SKILL DRILL I (*Elementary Student*)

Skill Drills should be a part of any School-based AED Program. The Skill Drills are scenarios designed to practice and reinforce more realistic CPR and AED skills for trained responders/rescuers in their school setting. These drills should be reviewed annually to assure optimal performance during an actual emergency.

Purpose: Management of a sudden cardiac arrest of an elementary-aged student requiring the performance of CPR and AED using pediatric electrode pads. After 3rd shock the victim is resuscitated.

Materials Required:

- AED Trainer with pediatric electrode pads
- First aid kit including CPR mask/face shield, scissors, razor, and gloves
- Mannequin
- Telephone (unconnected)
- *Skill Drill Checklist* on clipboard with pencil
- Stop watch

AED Trainer Settings: Start with shockable rhythm, 1 shock, CPR 2 minutes, 2nd shock, CPR 2 minutes, 3rd shock, converts to non-shockable rhythm, breathing returns.

Rescuer's Roles:

Rescuer 1 – CPR rescuer
Rescuer 2 – 911 caller and meets EMS at front of school
Rescuer 3 – AED rescuer
Rescuer 4 – Observer/time keeper (complete Checklist for Skill Drill)

Scenario: Mrs. Smith's 1st grade class is on the playground for recess. John, one of Mrs. Smith's students, is playing soccer and starts to have shortness of breath, but doesn't stop playing to tell his teacher. Suddenly John collapses and begins having some seizure-like activity. You (Rescuer 1) are on the playground and see John on the ground. You and another teacher (Rescuer 2) are the first responders to reach the student. Begin to assess and manage the victim now.

Assessment findings	Expected Learner Actions			
	Rescuer 1 – CPR rescuer	Rescuer 2 – 911 caller	Rescuer 3 – AED rescuer	Rescuer 4 – Observer/time keeper
<ul style="list-style-type: none"> ● <u>Rescuer 1 assesses the victim.</u> ● Victim has seizure-like activity. ● Seizure-like activity stops. ● There is no breathing. <p>● <u>Rescuer 2 calls EMS and arrives with first aid kit.</u></p> <p><i>Note: Seizures are related to lack of oxygen and have often been noted in Sudden Cardiac Arrests.</i></p>	<ul style="list-style-type: none"> ● Assesses victim (Check responsiveness, open airway, assess breathing). ● Identifies bystanders to assist with the emergency. ● Simultaneously instructs Rescuer 2 to notify EMS and obtain the AED/first aid kit. ● Puts on gloves and obtains CPR mask/face shield from playground first aid kit. ● Initiates CPR. 	<ul style="list-style-type: none"> ● Call EMS / front office to call 911/notify others (“Student with sudden loss of consciousness”). ● Gives Rescuer 1 playground first aid kit. ● Instructs Rescuer 3 to obtain AED in school. ● Meets EMS at front of school. 	<ul style="list-style-type: none"> ● Runs or calls for AED in the school. <p>(In real emergency, another rescuer should be clearing other students from scene.)</p>	<ul style="list-style-type: none"> ● Completes <i>AED Skill Drill Checklist.</i> ● Times drill with stop watch.
<ul style="list-style-type: none"> ● <u>Rescuer 3 arrives with AED.</u> 	<ul style="list-style-type: none"> ● Stops CPR. 		<ul style="list-style-type: none"> ● Arrives with AED. ● Removes clothing. ● Turn AED ”on”. ● Attaches pediatric electrodes. 	
<ul style="list-style-type: none"> ● Victim’s initial rhythm is Ventricular Fibrillation (VF). ● Rhythm remains VF for 1 shock. ● There is no breathing. 	<ul style="list-style-type: none"> ● Checks for breathing. ● Performs CPR for 2 minutes. 		<ul style="list-style-type: none"> ● Clear & Analyzes. ● Clear & Shocks 1 time. 	
<ul style="list-style-type: none"> ● After 2 minutes of CPR, rhythm Continues in VF. ● Rhythm remains VF for 2nd shock. ● There is no breathing. 	<ul style="list-style-type: none"> ● Checks for breathing. ● Performs CPR for 2 minutes. 		<ul style="list-style-type: none"> ● Clear & Analyzes. ● Clear & give 2nd Shock. 	
<ul style="list-style-type: none"> ● After 2 minutes of CPR, rhythm Continues in VF. ● After 3rd shock, rhythm converts to Normal Sinus Rhythm. ● “No shock advised”. ● Victim is now breathing. 	<ul style="list-style-type: none"> ● Check for breathing. ● Place victim in recovery position. ● Monitor victim until EMS arrives. 		<ul style="list-style-type: none"> ● Clear & Analyzes. ● Clear & give 3rd Shock. <p>Student moves, begins breathing.</p>	

Review:

Review the *AED Skills Drill Summary Checklist.*

SCHOOL-BASED AED PROGRAM

AED SKILL DRILL II (*Secondary Student*)

Skill Drills should be a part of any School-based AED Program. The Skill Drills are scenarios designed to practice and reinforce more realistic CPR and AED skills for trained responders/rescuers in their school setting. These drills should be reviewed annually to assure optimal performance during an actual emergency.

Purpose: Management of a sudden cardiac arrest of a secondary student lying in a puddle of water requiring the performance of CPR and AED with how to remove the victim from standing water and dry the chest. After 3rd shock the victim is resuscitated.

Materials Required:

- AED Trainer
- First aid kit including CPR mask/face shield, scissors, razor, and gloves
- Mannequin
- Telephone (unconnected)
- *Skill Drill Checklist* on clipboard with pencil
- Stop watch

AED Trainer Settings: Start with shockable rhythm, 1 shock, CPR 2 minutes, 2nd shock, converts to non-shockable rhythm, breathing returns.

Rescuer's Roles:

Rescuer 1 – CPR rescuer
Rescuer 2 – 911 caller and meets EMS at front of school
Rescuer 3 – AED rescuer
Rescuer 4 – Observer/time keeper (complete Checklist for Skill Drill)

Scenario: MS or HS Students are changing classes in the hallway. Sue, a student, was dizzy when she got up. Sue goes to the water fountain for a drink of water and suddenly collapses. You (Rescuer 1) are in the hallway and hear a student call for assistance. You and another teacher (Rescuer 2) are the first responders to reach the student. The student is in a puddle of water under the water fountain. Begin to assess and manage the victim now.

Assessment findings/Discussion	Expected Learner Actions			
	Rescuer 1 – CPR rescuer	Rescuer 2 – 911 caller	Rescuer 3 – AED rescuer	Rescuer 4 – Observer/time keeper
<ul style="list-style-type: none"> ● <u>Rescuer 1 assesses the victim.</u> ● Victim is unresponsive. ● There is no breathing. ● Victim is lying face down in a puddle of water. <ul style="list-style-type: none"> ● <u>Rescuer 2 calls 911 and arrives with Classroom first aid kit.</u> 	<ul style="list-style-type: none"> ● Assesses victim (Check responsiveness, open airway, assess breathing). ● Identifies bystanders to assist with the Emergency. ● Simultaneously ask Rescuer 2 to notify EMS and obtain the AED/first aid kit. ● Puts on gloves and obtains CPR mask/face shield from the classroom’s first aid kit ● Removes victim from puddle of water. ● Initiates CPR 	<ul style="list-style-type: none"> ● Calls EMS/ front office to notify others. ● Gives Rescuer 1 classroom first aid kit. ● Instructs Rescuer 3 to obtain the school’s AED. ● Meets EMS at front of school. 	<ul style="list-style-type: none"> ● Runs or calls for AED in the school. 	<ul style="list-style-type: none"> ● Completes <i>AED Skill Drill Checklist.</i> ● Times drill with stop watch.
<ul style="list-style-type: none"> ● <u>Rescuer 3 arrives with AED.</u> <p><i>Note: Rescuer must move and dry victim before attaching electrode pads..</i></p>	<ul style="list-style-type: none"> ● Stops CPR. 		<ul style="list-style-type: none"> ● Arrives with AED + kit. ● Removes victim’s clothing. Dries chest with towel. ● Turn AED”on”. ● Attaches electrode pads. 	
<ul style="list-style-type: none"> ● Victim’s initial rhythm is Ventricular Fibrillation (VF). ● Rhythm remains VF for 1 shock. <ul style="list-style-type: none"> ● There is no breathing. 	<ul style="list-style-type: none"> ● Checks for breathing. ● Performs CPR for 2 minutes. 		<ul style="list-style-type: none"> ● Clear & Analyzes. ● Clear & Shocks 1 time. 	
<ul style="list-style-type: none"> ● After 2 minutes of CPR, victim’s rhythm continues in VF. ● Rhythm remains VF for 2nd shock. 	<ul style="list-style-type: none"> ● Checks for breathing. ● Performs CPR for 2 minutes. 		<ul style="list-style-type: none"> ● Clear & Analyzes. ● Clear & give 2nd shock. 	
<ul style="list-style-type: none"> ● After CPR, rhythm reanalyzed ● ”No shock advised”. ▪ Victim begins breathing. 	<ul style="list-style-type: none"> ● Place victim in recovery position. ● Monitors victim until EMS arrives. 		<ul style="list-style-type: none"> ▪ Clear & Analyzes. ▪ “No shock advised” 	

Review: Review the *AED Skill Drill Summary Checklist.*

SCHOOL-BASED AED PROGRAM

AED SKILL DRILL III (*Adult Staff Member*)

Skill Drills should be a part of any School-based AED Program. The Skill Drills are scenarios designed to practice and reinforce more realistic CPR and AED skills for trained responders/rescuers in their school setting. These drills should be reviewed annually to assure optimal performance during an actual emergency.

Purpose: Management of a sudden cardiac arrest of an adult faculty member requiring the performance of CPR and AED and removal of a medication patch worn by the victim. After the 2nd shock the victim is resuscitated.

Materials Required:

- AED Trainer
- First aid kit including CPR mask/face shield, scissors, razor, and gloves
- Mannequin with a piece of tape that represents a medication patch on the chest at the location for the right AED electrode pad.
- Telephone (unconnected)
- *Skill Drill Checklist* on clipboard with pencil
- Stop watch

AED Trainer Settings: Start with shockable rhythm, 1 shock, CPR 2 minutes, 2nd shock, converts to non-shockable rhythm, breathing returns.

Rescuer's Roles:

Rescuer 1 – CPR rescuer
Rescuer 2 – 911 caller and meets EMS at front of school
Rescuer 3 – AED rescuer
Rescuer 4 – Observer/time keeper (complete Checklist for Skill Drill)

Scenario: The school day is almost over and Mr. Jones, the custodian, is fixing the gym doors while the basketball team gets ready to practice. Mr. Jones has had shortness of breath and chest pain all day and thinks, “I must have eaten something at lunch giving me heartburn today.” You (Rescuer 1) hear a sound as if someone has fallen. As you look over, you see Mr. Jones lying on the floor. You yell to the other coach (Rescuer 2) for assistance and are the first responders to reach the custodian. An AED is in the school. Begin to assess and manage the victim now.

Assessment findings	Expected Learner Actions			
	Rescuer 1 – CPR rescuer	Rescuer 2 – 911 caller	Rescuer 3 – AED rescuer	Rescuer 4 – Observer/time keeper
<ul style="list-style-type: none"> ● <u>Rescuer 1 assesses the victim.</u> ● Victim is unresponsive. ● There is no breathing. ● <u>Rescuer 2 calls EMS and arrives with first aid kit.</u> 	<ul style="list-style-type: none"> ● Assesses victim (Check responsiveness, open airway, assess breathing). ● Identifies bystanders to assist with the Emergency. ● Simultaneously instructs Rescuer 2 to notify EMS and obtain the AED/first aid kit. ● Puts on gloves and obtains CPR mask/face shield from gym’s first aid kit. ● Initiates CPR. 	<ul style="list-style-type: none"> ● Call EMS/front office to notify others (“Victim-adult male- down suddenly and unresponsive”.) ● Gives Rescuer 1 Gym’s first aid kit. ● Instructs Rescuer 3 to obtain AED in school. ● Meets EMS at front of school. 	<ul style="list-style-type: none"> ● Runs or calls for AED in the school. 	<ul style="list-style-type: none"> ● Completes <i>AED Skill Drill Checklist.</i> ● Times drill with stop watch.
<ul style="list-style-type: none"> ● <u>Rescuer 3 arrives with AED.</u> <p><i>Note: Rescuers must remove medication patch and wipe skin before attaching electrode pads.</i></p>	<ul style="list-style-type: none"> ● Stops CPR. 		<ul style="list-style-type: none"> ● Arrives with AED. ● Removes clothing. ● Removes medication patch and wipes skin. ● Turn AED”on”. ● Attaches electrode pads. 	
<ul style="list-style-type: none"> ● Victim’s initial rhythm is Ventricular Fibrillation (VF). ● Rhythm remains VF for 1 shock. ● There is no breathing. 	<ul style="list-style-type: none"> ● Checks for breathing. ● Performs CPR for 2 minutes. 		<ul style="list-style-type: none"> ● Clear & Analyzes. ● Clear & Shocks 1 time. 	
<ul style="list-style-type: none"> ● After 2 minutes of CPR, rhythm is Continues in VF. ● Rhythm remains VF for 2nd shock. 	<ul style="list-style-type: none"> ▪ Checks for breathing. ● Performs CPR for 2 minutes. 		<ul style="list-style-type: none"> ● Clear & Analyzes. ● Clear & give 2nd Shock. 	
<ul style="list-style-type: none"> ● After 2nd shock, victim’s rhythm converts to Normal Sinus Rhythm ● Victim is now breathing. 	<ul style="list-style-type: none"> ● Check for breathing. ● Place victim in recovery position. ● Monitor victim until EMS arrives. 		<ul style="list-style-type: none"> ▪ Clear & Analyzes. ● “No shock advised”. 	

Review:

Review the *AED Skill Drill Summary Checklist.*

SCHOOL-BASED AED PROGRAM

AED SKILL DRILL IV (*Athletic Student*)

Skill Drills should be a part of any School-based AED Program. The Skill Drills are scenarios designed to practice and reinforce more realistic CPR and AED skills for trained responders/rescuers in their school setting. These drills should be reviewed annually to assure optimal performance during an actual emergency.

Purpose: Management of a sudden cardiac arrest of an athlete requiring the performance of CPR and AED with poor pad contact and correction (drying) required. After 1st shock the victim continues to be unresponsive without breathing, but no shock is advised.

Materials Required:

- AED Trainer
- First aid kit including CPR mask/face shield, scissors, razor, and gloves
- Mannequin
- Telephone (unconnected)
- *Skill Drill Checklist* on clipboard with pencil
- Stop watch

AED Trainer Settings: Start with shockable rhythm, 1 shock, CPR 2 minutes, 1 shock, converts to non-shockable rhythm with signs of Circulation, but not breathing. Continue CPR until EMS arrives.

Rescuer's Roles:

Rescuer 1 – CPR rescuer
Rescuer 2 – 911 caller and meets EMS at front of school
Rescuer 3 – AED rescuer
Rescuer 4 – Observer/time keeper (complete Checklist for Skill Drill)

Scenario: The high school football team is practicing after school on the football field. Tom, one of the defensive players, during practice is experiencing some shortness of breath and dizziness. Suddenly Tom collapses. You (Rescuer 1) are a part of the coaching staff and hear one of the other players call for assistance. You and another coach (Rescuer 2) with a cellular phone are the first responders to reach the student. An AED is in the field house. Begin to assess and manage the victim now.

Assessment findings/Discussion	Expected Learner Actions			
	Rescuer 1 – CPR rescuer	Rescuer 2 – 911 caller	Rescuer 3 – AED rescuer	Rescuer 4 – Observer/time keeper
<ul style="list-style-type: none"> ● <u>Rescuer 1 assesses the victim.</u> ● Victim is unresponsive. ● There is no breathing. ● <u>Rescuer 2 calls EMS and arrives with first aid kit.</u> 	<ul style="list-style-type: none"> ● Assesses victim (Check responsiveness, open airway, assess breathing). ● Identifies bystanders to assist with the Emergency. ● Simultaneously ask Rescuer 2 to notify EMS and obtain the AED/first aid kit. ● Puts on gloves and obtains CPR mask/face shield from team’s first aid kit. ● Initiates CPR. 	<ul style="list-style-type: none"> ● Calls EMS/ front office. (“Student suddenly unconscious on the football field.”) ● Gives Rescuer 1 team’s first aid kit. ● Instructs Rescuer 3 to obtain AED in field house. ● Meets EMS at front of school. 	<ul style="list-style-type: none"> ● Runs or calls for AED in the field house. 	<ul style="list-style-type: none"> ● Completes <i>AED Skill Drill Checklist</i>. ● Times drill with stop watch.
<ul style="list-style-type: none"> ● <u>Rescuer 3 arrives with AED.</u> ● Victim’s chest is sweaty causing poor electrode contact that requires the victim’s chest to be dried before the electrodes will attach successfully. <p><i>Note: Suggest solutions (pressing down on pads, check cable connections, comment “The victim is sweaty.”).</i></p>	<ul style="list-style-type: none"> ● Stops CPR. 		<ul style="list-style-type: none"> ● Arrives with AED. ● Removes clothing. ● Dries chest. ● Turns AED ”on”. ● Attaches electrode pads. 	
<ul style="list-style-type: none"> ● Victim’s initial rhythm is Ventricular Fibrillation (VF). ● Rhythm remains VF for 1 shock. 			<ul style="list-style-type: none"> ● Clear & Analyzes. ● Clear & Shocks 1 time. 	
<ul style="list-style-type: none"> ● “No shock advised”, victim in Normal Sinus Rhythm with signs of circulation but not breathing. 	<ul style="list-style-type: none"> ● Checks for breathing. ● Performs CPR for 2 minutes. 		<ul style="list-style-type: none"> ● Clear & Analyzes ● “No shock advised” 	
<ul style="list-style-type: none"> ● After 2 minutes of CPR, “No shock advised”, ● victim continues to be unresponsive with no breathing. 	<ul style="list-style-type: none"> ● Checks for breathing ● Continues CPR until EMS arrives and takes over. 			

Review: Review the *AED Skill Drill Summary Checklist*.