



Emergency Wound Packing: Part 3 of "Stop the Bleed" Training

Illinois CTE Endorsement Area:
Health Science Technology & Human Services
Teacher and Student Editions

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Converted to Format by Karen Aldworth
Current Phase of Lesson: Phase 3 of 5



**Illinois
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Overview:

Mass casualty is an unfortunate experience we have all heard about in recent years. "Stop the Bleed" is a nationwide initiative to educate the public on what to do in the case of life-threatening bleeding. Although the formation of the "Stop the Bleed" program was prompted by public events, the information included in this lesson has value for accidents occurring in homes and at auto accident sites. In this lesson, students will learn how to pack small and large wounds by practicing on various items such as a leaking bottle and simulated blood in a pool noodle. (If available, mannequin legs and wound cubes can take the place of the pool noodles) It's going to be messy, but bleeding wounds are messy. They will use these skills in a real-life scenario of an accident in their home.

Classes or Discipline:

- Health Science Technology Career Pathways
- Human and Public Services Career Pathways
- Any CTE Disciplines Career Pathways

Career Cluster:

- [Health Science](#)
- [Human Services](#)

Illinois CTE Endorsement Area:

- [Health Science](#)
- [Human Services](#)

Grade Level(s):

- Middle school students (if deemed appropriate by their teacher)
- Secondary schools
- Postsecondary schools

Suggested Days/Minutes: Approximately 3 hours in the classroom if all parts are completed.

Learning Objectives:

- Compare arterial bleeding to venous bleeding.
- Describe how to pack various size wounds and wound depths to stop emergency arterial bleeding.
- Choose everyday items that can be used to pack a wound.
- Perform wound packing and assess their potential success in stopping arterial bleeding.

Standards Addressed:

National Health Science Standards

- 7.1.2 Standard Precautions – students will have the ability to critically think about other possible objects they could use to protect themselves from a blood exposure (i.e. plastic lunch and garbage bags).
- 7.2 Personal Safety – students will have the opportunity to carry disposable non-latex gloves in their purse or backpacks and learn whatever household items can be used (i.e. lunch baggies, plastic bags).
- 7.5.2 Emergency Procedures and Protocols – students will be confident that they can apply basic emergency response in natural disasters and other emergencies.

Common Core ELA Standards:

- CCSS.ELA-LITERACY.RST.11-12.7

Integrate and evaluate multiple sources of information presented in diverse formats and media (video, multimedia, print) in order to address a question or solve a problem.

Enduring Understandings:

- Remain confident in their skills to help save a life by stopping emergency arterial bleeding.
- Choose everyday items that could be used in a bleeding emergency.

Resources and References:

1. Computer with internet access
2. Overhead projection for classroom presentation
3. Multiple handheld devices with internet connectivity
4. Wound packing steps handout (included at the end of the lesson)
5. Pre & Post quiz (included at the end of the lesson)
6. Colored paper
7. Colored markers, pens, pencils, crayons
8. Mannequin legs (if available)
9. Wound cubes (if available)
10. Pool noodles (cut in half) - cut slits into the noodles in different shapes, sizes and depths of wounds. Be creative! Think hole (puncture wound), short and long slices of different lengths and depths, make some jagged, some deep and some shallow, (this is for small wounds)
11. Pool noodles cut in half, for the large wounds activity. Follow directions in the teacher version of this lesson.
12. Several 2-liter plastic bottles (number needed will depend on the size of the groups for this project)

13. Water that has been colored red to fill the 2-liter plastic bottles for a more realistic experience. CAUTION: use your discretion regarding red coloring as it stains!
14. Sharp item capable of puncturing a hole in the 2-liter plastic bottle - the teacher should perform this function and not the students.
15. Disposable vinyl (non-latex) gloves in Sm, Med, Large & XL for student use. (distribute one pair of gloves to each student in a size larger than normally worn in order to put on gloves quickly in an emergency). Gloves can be reused by turning them right side in.
16. Inexpensive gauze for packing strips; old rags, old T-shirts, old dishrags, etc. Cut packing items into approximately 12-inch-long strips (if possible).

Essential Employability Skills:

There are four [essential employability skills](#)

- Personal Ethic: integrity, respect, perseverance, positive attitude
- Work Ethic: dependability, professionalism
- Teamwork: critical thinking, effective and cooperative work
- Communication: active listening, clear communication

The focus of this lesson is on respect, positive attitude, critical thinking and clear communication.

Skill	How it is addressed:
Respect	As a measure of respect for the victim, students will verbalize why it is important to maintain the victim's privacy and not allow "gawkers" to stand and observe. Demonstrate continued reassurance to a conscious victim. Explore Part II: Step 10
Positive Attitude	Students will demonstrate and verbalize confidence in their skills and a willingness to help in emergency situations. Explore Part I: Steps 4, 5 & 11 Explore Part III A: Step 3 Explore III B: Step 3,6,13 & 24 Elaborate: Step 1
Critical Thinking	Student's ability to critically think (what could they use in an emergency bleeding situation) in complex emergencies will increase the victim's chance for survival. Explore Part I: Steps 4, 5, 8, 9 & 10 Explore Part III A: Step 3 Elaborate: Step 1
Clear Communication	Students must learn to work together in emergency situations. Students must be able to clearly communicate with the victim, if conscious, bystanders, first responders

	<p>and EMS. It is vital that first responders and EMS understand the victim's condition and treatment up to the point of their arrival to the scene.</p> <p>Explore Part I: Steps 4, 6 & 7</p> <p>Explore Part III A: Steps 3 & 4</p> <p>Explore Part III B: Step 3</p> <p>Elaborate: Step 3</p>
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Suggested Differentiation Strategies:

- Visual learners will have individual devices with internet connectivity to view video and research information for aspects of the lesson.
- Teacher will assign group members to ensure diversity of learning styles within the group.
- Wound packing steps handout will be provided for students that need visual and written cues when performing skills that require multiple steps.
- Students will have the experience of hands-on wound packing for kinesthetic learners.
- Students working in diverse groups will develop a "reference sheet" for learners that need to focus on writing and use their creativity skills. (this will also serve as a lesson takeaway)

Throughout this lesson the teacher notes and comments are in red.

1. Engage: (20 minutes)

1. You will receive a short quiz from your teacher. Do your best!
2. Your teacher has set up a Kahoot! game for you. Use your phone or other device to connect to GetKahoot.com and enter the code that your teacher will provide.
Open the Kahoot! [Wound Packing in Emergencies](#)
3. Discuss with a partner, were there any similarities between the quiz and the Kahoot!?
4. If yes, what were they? Did you think they were important to know?
Here are the similarities: characteristics of arterial bleeding, the Good Samaritan Act, articles that can be used for bleeding control, amount of blood in the average adult body and possible use of hand sanitizer.
5. Was there any information that you did not already know? If yes, what? What is the difference between arterial bleeding and venous bleeding?
Venous blood is dark red in color. Arterial blood is bright red in color. Venous bleeding can be a continuous ooze while arterial bleeding will be spurting with each beat of the victim's heart.
6. Are there any areas on the body that CANNOT be packed? Take 5 minutes and research this.
Abdominal and chest wounds cannot be packed. You can only apply pressure.

2. Explore: (60 minutes)

Part 1

For small wounds:

1. In groups of 3-4 students, fill a 2-liter plastic bottle with red water. Two liters is a representation of half of the amount of blood in a human adult. If an adult loses 40-50% of their blood volume, the victim will typically die from blood loss.
2. Your teacher will poke a hole near the bottom of the bottle with a sharp object, causing it to "bleed."
Be sure the hole is large enough for the red liquid to seep out easily.
3. Have someone in your group "time" how long it takes your group to stop the bleeding.
Remember the time needs to be between 3-5 minutes and if the bottle empties their victim most likely did not survive.

4. Your group needs to find something in the classroom that you can use to stop the bleeding.
Have available old towels, rags, old T-shirts, socks, old hoodies, etc. cut up into strips approximately 3 inches wide and 12 inches in length. The use of gauze would be too expensive for this activity depending on the number of students / number of sessions that you teach.
5. What material did you find to use? Did it work? If yes, why? If not, why not?
It worked if the bleeding was stopped with less than $\frac{1}{2}$ of the red water draining out. It did not work if almost all the red water leaked out.
6. Measure the "blood" remaining in the bottle. Did more than half of the water leak out before your group was able to stop the bleeding?
Provide a measuring cup or graduated cylinder for the students to measure the remaining liquid.
7. How long did it take your group (minutes or seconds) to stop the bleeding of the small wound.
Hopefully in 3-5 minutes or if less than $\frac{1}{2}$ of the water leaked out.
8. Do you think your victim survived? If yes, why? If no, why not?
9. Do you have "blood" on your hands or gloves?
Students need to critically think about items in the classroom that can be used to protect their hands from blood. If not using gloves, students will have blood on their hands. This is a great opportunity to reinforce the student's need to hang on to their pair of gloves (if provided).
10. If you have blood on your hands, what are you going to do next?
There are 3 more steps: correct hand hygiene technique (no hand sanitizer is appropriate for use in this situation), complete a blood exposure report and report to their physician as quickly as possible).
11. Within your group, refill your bottle and try to improve the time it takes to stop the bleeding by packing the hole in the bottle. Did you save your victim's life this time? If yes, why? If not, why not?
Did the student's do better this time? If yes, move onto larger wound packing. If not, consider remediating this activity. Packing a small wound is much easier to accomplish. They need to be confident at this level before moving on to larger wound packing.
12. Can you hurt your victim?
Perhaps, but you NEED to save the life!
13. Should you be timid and gently pack these bleeding wounds?
NO, the wound must be packed "firmly" to the depth of the wound.

Part 2

Lay out the following items for the students to see: mannequins, wound cubes (if these two items are available for use), pool noodles, gauze, strips of cloth, socks, T-shirts, 2-liter bottles with red water (caution red water will stain – use at your discretion).

1. Look at the items your teacher has set out for your use later. How do you think they are all going to be used? Write down your thoughts and share with a partner.
2. Your teacher will demonstrate each of the items later in the lesson.
3. Watch the YouTube video Bleeding Control: Wound Packing which introduces wound packing.
Show the students the YouTube video Bleeding Control: Wound Packing (8.25 minutes)
Show only approximately the first 7 minutes of the video. Inform the students there is a part of the video that you do not agree with. See if they can figure it out.
CAUTION: Avoid teaching students to put their finger(s) blindly into a wound as demonstrated on this video. Wound packing can be accomplished by packing from the surface to the depth. Sticking a finger blindly into a wound that possibly has bone fragments would result in a puncture exposure incident for the responder.
4. Talk it over with your neighbor. Can you figure out what part of the video your teacher might disagree with?
5. What did you think about the video?
6. Some people are bothered by the sight of blood. How do you think being involved with the actual event might differ from watching a video about it? Share your thoughts with your neighbor.
7. Do you still have your disposable gloves (from previous Stop the Bleed training)? If you do not, your teacher has boxes of gloves, take 1 pair in a larger size than you would normally wear, if available.
8. Why take a larger pair of gloves than you normally wear?
In an emergency, it is much easier to put on gloves that are somewhat big on you. You will struggle to get “snug” gloves on in an emergency.
9. Any idea what “hemostatic” gauze might be? Take 5 minutes and research it. Be sure your neighbor understands the meaning also.
Hemostatic agents are products which have an advanced capability to stop bleeding. Hemostatic agents are available in two forms; as a granular powder or embedded in a dressing such as, a gauze and sponge. The hemostatic dressing is

soaked with a substance which accelerates the clotting process.

10. Why would you try to keep “gawkers” away from the victim?

Cell phone pictures and video clips do not respect the victim’s right to privacy and their right to not appear on social media – think how they would feel if that was their Mom or Dad.

11. Your teacher will reshoot the video: individually, write down the steps that were demonstrated.

Stress that after being sure the scene is safe for themselves and the victim to whom they are giving care, it is important to keep “gawkers” and others away to respect the victim’s privacy.

Part 3

For large wounds (Part A)

This is another messy activity, consider doing it outside.

1. You will be working in small groups for this activity. You will use the same 2-liter bottle as before but the hole will be enlarged.
2. Have a different person in your group be the “timer” for this activity.
3. Look around your classroom, find something to stop the “bleeding” of this larger wound by packing the larger hole.
You might want to consider keeping any “hoodies” that you have cut up for this or the next activity. The larger holes will require something more absorbent to stop the bleeding).
4. How long did it take you to stop the bleeding from a larger wound?
5. Why did it take the bleeding longer to stop on the larger wound than packing a smaller wound? Discuss with your group, the difficulty stopping the bleeding of a larger wound.
6. Measure the remaining “blood” in the bottle.
 - a. Did your victim lose more than $\frac{1}{2}$ of the red water in the bottle? Why?
 - b. Is your victim still alive? If yes, why? If not, why not?
7. Did it take you longer than 3-5 minutes to stop the bleeding? Why?
8. Did your victim lose blood more quickly? How quickly? Your bottle had about $\frac{1}{2}$ the amount of actual blood in an adult.
9. What if anything is different than packing a smaller wound?

10. Write down some of your group's ideas and share with entire class.

It should be interesting what the student's ideas are with a bottle that has a much larger hole in which the water will leak out much more quickly. This could be a great discussion.

Part 3

For large wounds (Part B)

1. In groups of 3-4 students, take a mannequin leg, wound cube (if available) or pool noodle that your teacher has prepared for you.
2. Assign one student in your group to be the "timer".
3. Your timer will measure how long it takes you to stop the bleeding. You can then determine how much blood was lost and if your victim was saved or died.
This activity will be fun but messy. Consider this for an outside activity. Prepare the pool noodles (if not using leg mannequin or wound cube) with the following:
 - a. Fill the 2-liter bottles with red colored water (use red coloring at your discretion)
 - b. Stuff a dry rag into the bottom of the hole in the noodle and cover with tape.
 - c. Make a 3-inch slice lengthwise in the middle of the noodle and cover it with several layers of tape
 - d. Fill the noodle with blood by inserting your bottle into the open end of the noodle
 - e. Stand noodle upright
 - f. Have students refill their bottles and insert into the open end of the noodle. Total of 4-liters available = average amount of blood for an average adult.
 - g. Pull off the tape from the 3-inch slice of the noodle and ask the students to PACK that wound to stop the bleeding.
 - h. Measure the amount remaining in the bottle after group has stopped the bleeding.
 - i. The group's "timer" will give them their results.
 - j. Remove tape and cloth to be reused.
 - k. It is possible to cut your noodles in half to make more packing stations.
4. Your teacher will now demonstrate the correct procedure for wound packing.
5. Did your teacher do anything different in packing a large wound than you did?
6. Was she/he able to stop the bleeding more quickly? Why? Why not?
7. During your practice, did you pack all the wounds the same way? What, if anything, did you do differently due to the size of the wound?
8. Want to try it again?
If time permits, allow students another practice session.

9. Refresh your information by again viewing the video:
[Bleeding Control: Wound Packing](#)
10. Did you make any additions to your instructions?
11. Did you cross off anything?
12. Using all the models available, practice one more time
13. Are you going to be willing to help in a bleeding emergency? If yes, why? If not, why?
This is a good time to briefly discuss your state's Good Samaritan law. You will observe their confidence in their own skills. Remediate as necessary. Allow students the opportunity to share their results with the class.
14. In small groups, discuss how well you did to stop the bleeding of a large wound before your victim "bled out" and died?
15. Could there have been a better way to help the person trying to stop the bleeding?
16. What suggestions or steps would you have given the person trying to stop the bleeding?
17. Is there anything specific that you don't want to forget telling a possible rescuer that would help them stop the bleeding more quickly?

3. Explain: (15 minutes)

Answer the following questions using the information you learned from the wound packing activity.

1. Why did you practice on a leg wound?
Because that is an area on the body that you can pack.
2. Are there any areas that are not appropriate for you to pack?
Abdomen and chest
3. How much blood did your victim lose? Did your victim have a chance to survive?
4. How much blood can your victim lose and still have a chance to live?
Less than 2 liters
5. How long did it take your group to stop the bleeding?
Was it more than 3-5 minutes? Then the likelihood of their victim surviving was slim.

6. Did you victim survive? If yes, why? If no, why not?
7. If that had been a real accident with a bleeding victim, how long would they have before their death would occur?
3-5 minutes
8. Why should you never blindly place your fingers into a bleeding wound?
Danger of bone shards present in the wound and the rescuer could suffer a puncture wound.

4. Elaborate/Extend: (30 minutes)

1. In small groups, evaluate the following scene:
It's Saturday at your house. You and your Mom are the only people home. Your Mom is cutting up vegetables to make salads and salsa in the kitchen. Her knife slips and she suffers a deep jagged arm wound which is continually bleeding.
2. Outline in steps exactly what you plan to do to take care of her. Be specific – her life depends on you!
 - a. How do you plan to try to stop the bleeding?
 - b. What are you going to do if you can't stop the bleeding?

The following is a list of possible steps the student will include.

- a) Make sure the scene is safe. **
- b) Respect victim's privacy and don't allow "gawkers" to stand there and observe.
- c) Apply gloves if available otherwise look for plastic bag, lunch baggie etc. **
- d) Look for everyday items that can be used (T-shirt, hoodie, sweatshirt, socks, rags). **
- e) Find the source of the bleeding. **
- f) Remove the excess blood from the wound. **
- g) NEVER pack an abdominal or chest wound – that bleeding will need to be controlled at the hospital in the operating room.
- h) Preserve any clots that are attached to the wound. **
- i) Roll tip of gauze, t-shirt etc. into a small ball and place the small ball into the wound first. **
- j) Tell the victim that you know it "hurts". **
- k) Pack into the wound tight and deep – all the way to the bottom of the wound (depth). Using a pack from the surface to the depth technique. **
- l) Using 2 fingers directly placed on top of the packed gauze and apply direct hard continuous pressure.
- m) Pressure must be held a minimum of 3 minutes or preferably until EMS arrives.
- n) NEVER remove the packed gauze to peek underneath (this could disturb any clot formation). **

- o) If original gauze is bloody – put another one on top of it. **
- p) Stay with your victim until EMS relieves you. Give EMS your report. **

3. If you called 911 – how did you communicate with them? What information did you give them?

During the call to 911 the following information should be relayed:

- a) Location of incident
- b) How many victims
- c) Age, gender, condition of victim
- d) Type of injury
- e) 911 hangs up first

Once EMS arrives the following information is important to share:

- a) Time treatment (wound packing) started.
- b) Any other information known about victim; allergies, medications, etc.
- c) If the victim lost consciousness, the time that occurred.

5. Evaluate:

Your teacher may use the following tools to evaluate your comprehension of the material presented in this lesson.

1. Demonstrate competency in wound packing skills through their hands-on demonstrations.

Rubric below:

8 – 9 points – student has demonstrated competency in the wound packing skill.

6-7 points – student demonstrated “near” competency in wound packing skill.

Remediation suggested.

5 or less – student has not demonstrated competency in the wound packing skill.

Remediate is necessary.

Category	3 Points	2 Points	1 Point
Wound Packing Skills	Student successfully demonstrates all steps in proper sequence for wound packing skill for both small and large wounds. Student able to verbalize all the steps during the demonstration.	Student successfully demonstrates most of the steps in proper sequence (2 or less errors) for wound packing skill for both small and large wounds. Student able to verbalize most of the steps, missing 2 or less.	Student did not successfully demonstrate the steps required for proper wound packing skill for either or both small and large wounds. Student was not able to verbalize the steps required for wound packing.

	Student demonstrates competency in all wound packing requirements.	Student demonstrates near competency of wound packing requirements with 2 or less errors.	Student unable to demonstrate competency in wound packing skill.
Wound Packing Material	Students successfully identified and used 2-3 objects available in the classroom for wound packing materials.	Student successfully identified and used 1 object in the classroom for wound packing material.	Student was unable to identify or use any objects in the classroom for wound packing material.
Communication with victim	During wound packing demonstration, student communicated with the victim, reassuring the victim that help was on the way.	During wound packing demonstration, student did not engage with the victim regularly. Student did reassure victim that help was on the way.	During wound packing demonstration, student did not engage with the victim at any time. Student did not reassure the victim that help was on the way.

2. Post-lesson quiz to assess for knowledge obtained during this lesson. Increase in total number of questions answered correctly is expected.
3. Post-lesson Kahoot! with anticipated improvement in number of questions answered correctly. Play Kahoot!: [Wound Packing in Emergencies](#)
4. Scene evaluation and steps for helping Mom. (content not creativity).

Rubric below:

8-9 points – significant knowledge of wound packing steps and sequence

5-7 points – fair to good knowledge of wound packing steps and sequence

4 or less points – poor grasp of knowledge required for wound packing steps and sequence

Category	3 POINTS	2 POINTS	1 POINTS
Knowledge of the issue: emergency arterial bleeding. Uses a well-designed plan that is heavy in content from varied sources	Designed plan that identifies all packing steps in performance order. b. Steps are completely addressed in the plan.	Plan design has 1-2 wound packing steps that were not identified or are out of order in the plan.	Plan design had 3 or more wound packing steps that were not identified or are out of order in the plan.

(i.e. website, video, print material).			
Wound packing steps are identified and in the proper sequence.	There are no missing steps or information. All steps identified reflect student's knowledge of the topic: wound packing emergency wounds.	Most of the steps are reflective of student's knowledge of the topic: wound packing emergency wounds.	The plan is not reflective of student's learning or knowledge of the topic: wound packing emergency wounds.
Personal safety precautions are identified.	Personal safety precautions are identified. (used gloves if available)	Personal safety precautions are mostly identified. (used gloves if available)	Personal safety precautions are missing or inaccurate. (did not use gloves when available)

Pre-Post lesson quiz.

1. What does arterial bleeding look like?
 - a. Dark red and constantly oozing
 - b. Bright red and spurting
 - c. There is no difference between a vein and artery bleeding
 - d. If it's doing any bleeding, pack it!
2. In Illinois, if you stop to help at an accident, the victim can sue you even if you were just trying to help?
 - a. Untrue
 - b. True
3. After you have packed a bleeding wound
 - a. Watch to see if it continues bleeding
 - b. Tell the victim help is on the way
 - c. Put pressure on the wound
 - d. Don't do anything else that might harm the victim
4. Which of the following (if any) can't be used to pack a wound?
 - a. T-shirt
 - b. Sweatshirt
 - c. Dirty greasy rag from your car
 - d. Sock
5. What is the first thing you should do when seeing an accident?
 - a. Call 911
 - b. Pull over
 - c. See if you can help
 - d. Look for the victim
6. How deep do you have to pack a bleeding wound?
 - a. Just wipe the blood off the surface
 - b. Put your packing on top of the wound
 - c. Pack it deep and tight
 - d. Pack it lightly otherwise it causes discomfort
7. How much blood is in an average adult body?
 - a. 3-4 pints
 - b. 4-5 quarts
 - c. 2 gallons
 - d. Everyone is different
8. If you get someone else's blood on your hands, can you use hand sanitizer to clean them?
 - a. Yes
 - b. No

ANSWER GUIDE:

1. b
2. a
3. c
4. they can all be used (even the dirty greasy rag – it is better than nothing and hospital will deal with any infection)
5. a
6. c
7. b
8. b (visibly soiled hands need soap and water)

Handout on the steps for wound packing for students that need visual and written cues when performing skills that require multiple steps

Steps:

1. Make sure the scene is safe.
2. Apply gloves if available otherwise look for plastic bag, lunch baggie etc.
3. Find the source of bleeding – look for everyday items that can be used (T-shirt, hoodie, sweatshirt, socks, rags)
4. Remove the excess blood
5. NEVER pack an abdominal or chest wound – that bleeding will need to be controlled at the hospital in the operating room
6. Preserve any clots that are attached to the wound
7. Roll tip of gauze, t-shirt etc. into a small ball and place the small ball into the wound first
8. Tell the victim that you know it “hurts”
9. Pack into the wound tight and deep – all the way to the bottom of the wound (depth)
10. Using 2 fingers directly place on top of the packed gauze and apply direct hard pressure
11. Pressure must be held a minimum of 3 minutes or preferably until EMS arrives
12. NEVER remove the packed gauze to peek underneath
13. If original gauze is bloody – put another one on top of it
14. Stay with your victim under EMS relieves you. Give EMS your report

Notes:

All ILCTE lessons are vetted by Curriculum Leader, Dr. Brad Christensen.

To see a review of this lesson by previous users, [click here](#).

We invite users of this lesson to [click here](#) to leave follow up information and rating.

We would like to publish pictures / videos of your students using this lesson. Please send to Rod McQuality at: rdmcquality@ilstu.edu. By sending pictures, you have met all the picture / video release for your school.

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Part 3 of "Stop the Bleed" Training

Student Edition

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Learning Objectives:

- Compare arterial bleeding to venous bleeding.
- Describe how to pack various size wounds and wound depths to stop emergency arterial bleeding.
- Choose everyday items that can be used to pack a wound.
- Perform wound packing and assess their potential success in stopping arterial bleeding.

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16. Inexpensive gauze for packing strips; old rags, old T-shirts, old dishrags, etc. Cut packing items into approximately 12-inch-long strips (if possible).

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- Personal Ethic: integrity, respect, perseverance, positive attitude
- Work Ethic: dependability, professionalism
- Teamwork: critical thinking, effective and cooperative work
- Communication: active listening, clear communication

The focus of this lesson is on respect, positive attitude, critical thinking and clear communication.

Skill	How it is addressed:
Respect	As a measure of respect for the victim, students will verbalize why it is important to maintain the victim's privacy and not allow "gawkers" to stand and observe. Demonstrate continued reassurance to a conscious victim. Explore Part II: Step 10
Positive Attitude	Students will demonstrate and verbalize confidence in their skills and a willingness to help in emergency situations. Explore Part I: Steps 4, 5 & 11 Explore Part III A: Step 3 Explore III B: Step 3,6,13 & 24 Elaborate: Step 1

Critical Thinking	<p>Student's ability to critically think (what could they use in an emergency bleeding situation) in complex emergencies will increase the victim's chance for survival.</p> <p>Explore Part I: Steps 4, 5, 8, 9 & 10</p> <p>Explore Part III A: Step 3</p> <p>Elaborate: Step</p>
Clear Communication	<p>1Students must learn to work together in emergency situations. Students must be able to clearly communicate with the victim, if conscious, bystanders, first responders and EMS. It is vital that first responders and EMS understand the victim's condition and treatment up to the point of their arrival to the scene.</p> <p>Explore Part I: Steps 4, 6 & 7</p> <p>Explore Part III A: Steps 3 & 4</p> <p>Explore Part III B: Step 3</p> <p>Elaborate: Step 3</p>

1. Engage: (20 minutes)

1. You will receive a short quiz from your teacher. Do your best!
2. Your teacher has set up a Kahoot! game for you. Use your phone or other device to connect to GetKahoot.com and enter the code that your teacher will provide.
3. Discuss with a partner, were there any similarities between the quiz and the Kahoot!?
4. If yes, what were they? Did you think they were important to know?
5. Was there any information that you did not already know? If yes, what? What is the difference between arterial bleeding and venous bleeding?
6. Are there any areas on the body that CANNOT be packed? Take 5 minutes and research this.

2. Explore: (60 minutes)

Part 1

For small wounds:

1. In groups of 3-4 students, fill a 2-liter plastic bottle with red water. Two liters is a representation of half of the amount of blood in a human adult. If an adult loses 40-50% of their blood volume, the victim will typically die from blood loss.
2. Your teacher will poke a hole near the bottom of the bottle with a sharp object.
3. Have someone in your group “time” how long it takes your group to stop the bleeding.
4. Your group needs to find something in the classroom that you can use to stop the bleeding.
5. What material did you find to use? Did it work? If yes, why? If not, why not?
6. Measure the “blood” remaining in the bottle. Did more than half of the water leak out before your group was able to stop the bleeding?
7. How long did it take your group (minutes or seconds) to stop the bleeding of the small wound?
8. Do you think your victim survived? If yes, why? If no, why not?
9. Do you have “blood” on your hands or gloves?
10. If you have blood on your hands, what are you going to do next?
11. Within your group, refill your bottle and try to improve the time it takes to stop the bleeding by packing the hole in the bottle. Did you save your victim’s life this time? If yes, why? If not, why not?
12. Can you hurt your victim?
13. Should you be timid and gently pack these bleeding wounds?

Part 2

1. Look at the items your teacher has set out for your use later. How do you think they are all going to be used? Write down your thoughts and share with a partner.
2. Your teacher will demonstrate each of the items later in the lesson.
3. Watch the YouTube video Bleeding Control: Wound Packing which introduces wound packing.
4. Talk it over with your neighbor. Can you figure out what part of the video your teacher might disagree with?

5. What did you think about the video?
6. Some people are bothered by the sight of blood. How do you think being involved with the actual event might differ from watching a video about it? Share your thoughts with your neighbor.
7. Do you still have your disposable gloves (from previous Stop the Bleed training)? If you do not, your teacher has boxes of gloves, take 1 pair in a larger size than you would normally wear, if available.
8. Why take a larger pair of gloves than you normally wear?
9. Any idea what "hemostatic" gauze might be? Take 5 minutes and research it. Be sure your neighbor understands the meaning also.
10. Why would you try to keep "gawkers" away from the victim?
11. Your teacher will reshoot the video: individually, write down the steps that were demonstrated.

Part 3

For large wounds (Part A)

1. You will be working in small groups for this activity. You will use the same 2-liter bottle as before but the hole will be enlarged.
2. Have a different person in your group be the "timer" for this activity.
3. Look around your classroom, find something to stop the "bleeding" of this larger wound by packing the larger hole.
4. How long did it take you to stop the bleeding from a larger wound?
5. Why did it take the bleeding longer to stop on the larger wound than packing a smaller wound? Discuss with your group, the difficulty stopping the bleeding of a larger wound.
6. Measure the remaining "blood" in the bottle.
 - a. Did your victim lose more than $\frac{1}{2}$ of the red water in the bottle? Why?
 - b. Is your victim still alive? If yes, why? If not, why not?
7. Did it take you longer than 3-5 minutes to stop the bleeding? Why?
8. Did your victim lose blood more quickly? How quickly? Your bottle had about $\frac{1}{2}$ the amount of actual blood in an adult.

9. What if anything is different than packing a smaller wound?
10. Write down some of your group's ideas and share with entire class.

Part 3

For large wounds (Part B)

1. In groups of 3-4 students, take a mannequin leg, wound cube (if available) or pool noodle that your teacher has prepared for you.
2. Assign 1 student in your group to be the "timer".
3. Your timer will measure how long it takes you to stop the bleeding. You can then determine how much blood was lost and if your victim was saved or died.
4. Your teacher will now demonstrate the correct procedure for wound packing.
5. Did your teacher do anything different in packing a large wound than you did?
6. Was she/he able to stop the bleeding more quickly? Why? Why not?
7. During your practice, did you pack all the wounds the same way? What, if anything, did you do differently due to the size of the wound?
8. Want to try it again?
9. Refresh your information by again viewing the video:
[Bleeding Control: Wound Packing](#)
10. Did you make any additions to your instructions?
11. Did you cross off anything?
12. Using all the models available, practice one more time
13. Are you going to be willing to help in a bleeding emergency? If yes, why? If not, why?
14. In small groups, discuss how well you did to stop the bleeding of a large wound before your victim "bled out" and died?
15. Could there have been a better way to help the person trying to stop the bleeding?

16. What suggestions or steps would you have given the person trying to stop the bleeding?
17. Is there anything specific that you don't want to forget telling a possible rescuer that would help them stop the bleeding more quickly?

3. Explain: (15 minutes)

Answer the following questions using the information you learned from the wound packing activity.

1. Why did you practice on a leg wound?
2. Are there any areas that are not appropriate for you to pack?
3. How much blood did your victim lose? Did your victim have a chance to survive?
4. How much blood can your victim lose and still have a chance to live?
5. How long did it take your group to stop the bleeding?
6. Did your victim survive? If yes, why? If no, why not?
7. If that had been a real accident with a bleeding victim, how long would they have before their death would occur?
8. Why should you never blindly place your fingers into a bleeding wound?

4. Elaborate/Extend: (30 minutes)

1. In small groups, evaluate the following scene:
It's Saturday at your house. You and your Mom are the only people home. Your Mom is cutting up vegetables to make salads and salsa in the kitchen. Her knife slips and she suffers a deep jagged arm wound which is continually bleeding.
2. Outline in steps exactly what you plan to do to take care of her. Be specific – her life depends on you!
 - a. How do you plan to try to stop the bleeding?
 - b. What are you going to do if you can't stop the bleeding
3. If you called 911 – how did you communicate with them? What information did you give them?

5. Evaluate:

Your teacher may use the following tools to evaluate your comprehension of the material presented in this lesson.

1. Demonstrate competency in wound packing skills through their hands-on demonstrations.

Category	3 Points	2 Points	1 Point
Wound Packing Skills	Student successfully demonstrates all steps in proper sequence for wound packing skill for both small and large wounds. Student able to verbalize all the steps during the demonstration. Student demonstrates competency in all wound packing requirements.	Student successfully demonstrates most of the steps in proper sequence (2 or less errors) for wound packing skill for both small and large wounds. Student able to verbalize most of the steps, missing 2 or less. Student demonstrates near competency of wound packing requirements with 2 or less errors.	Student did not successfully demonstrate the steps required for proper wound packing skill for either or both small and large wounds. Student was not able to verbalize the steps required for wound packing. Student unable to demonstrate competency in wound packing skill.
Wound Packing Material	Students successfully identified and used 2-3 objects available in the classroom for wound packing materials.	Student successfully identified and used 1 object in the classroom for wound packing material.	Student was unable to identify or use any objects in the classroom for wound packing material.
Communication with victim	During wound packing demonstration, student communicated with the victim, reassuring the victim that help was on the way.	During wound packing demonstration, student did not engage with the victim regularly. Student did reassure victim that help was on the way.	During wound packing demonstration, student did not engage with the victim at any time. Student did not reassure the victim that help was on the way.

2. Post-lesson quiz to assess for knowledge obtained during this lesson. Increase in total number of questions answered correctly is expected.
3. Post-lesson Kahoot! with anticipated improvement in number of questions answered correctly. Play Kahoot!: [Wound Packing in Emergencies](#)
4. Scene evaluation and steps for helping Mom.

Category	3 POINTS	2 POINTS	1 POINTS
Knowledge of the issue: emergency arterial bleeding. Uses a well-designed plan that is heavy in content from varied sources (i.e. website, video, print material).	Designed plan that identifies all packing steps in performance order. b. Steps are completely addressed in the plan.	Plan design has 1-2 wound packing steps that were not identified or are out of order in the plan.	Plan design had 3 or more wound packing steps that were not identified or are out of order in the plan.
Wound packing steps are identified and in the proper sequence.	There are no missing steps or information. All steps identified reflect student's knowledge of the topic: wound packing emergency wounds.	Most of the steps are reflective of student's knowledge of the topic: wound packing emergency wounds.	The plan is not reflective of student's learning or knowledge of the topic: wound packing emergency wounds.
Personal safety precautions are identified.	Personal safety precautions are identified. (used gloves if available)	Personal safety precautions are mostly identified. (used gloves if available)	Personal safety precautions are missing or inaccurate. (did not use gloves when available)