



Introducing *Stop the Bleed* to the EMSC Community

March 29, 2017

Speakers:

Mary Fallat, MD, FACS

Lenworth Jacobs, MD, MPH, FACS

Richard Hunt, MD, FACEP

Moderator:

Beth Edgerton, MD, MPH, FAAP

As a result of having participated in this webinar, attendees will be able to:

- Describe why the EMSC Community should be involved in teaching the Stop the Bleed Program
- Understand how to access the materials and learn how to teach the course
- Describe the need for the Stop the Bleed Program
- Describe how the average citizen can be prepared to help if the occasion arises
- Understand who should take the B-CON course



TODAY'S PRESENTERS



Beth Edgerton,
MD, MPH, FAAP



Mary Fallat, MD,
FACS



Lenworth Jacobs,
MD, MPH, FACS

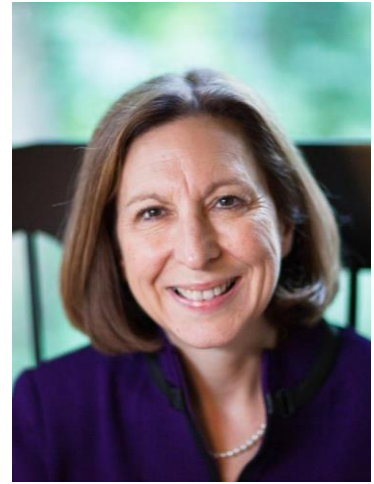


Richard Hunt,
MD, FACEP



Mary Fallat, MD, FACS

- **Describe why the EMSC Community should be involved in teaching the Stop the Bleed Program**
- **Understand how to access the materials and learn how to teach the course**



Mary Fallat, MD, FACS

- **The Hartford Consensus**

- **December 14, 2012** Sandy Hook active shooter disaster in Newtown, CT
- **April 2013** Joint Committee to Create a National Policy to Enhance Survivability from Intentional Mass Casualty and Active Shooter Events convened under leadership of Dr. Jacobs by ACS in collaboration with the medical community and representatives from the federal government, the National Security Council, the U.S. military, the Federal Bureau of Investigation, and governmental and nongovernmental emergency medical response organizations
- **Goal** create a protocol for national policy to enhance survivability from active shooter and intentional mass casualty events

This educational program is the product of a cooperative effort by:



The Hartford
Consensus



The American
College of
Surgeons
Committee on
Trauma



The Committee
on Tactical
Combat
Casualty Care



The
National
Association
of
Emergency
Medical
Technicians



SAVE A LIFE

- The focus of this program is on:
 - The immediate response to bleeding
 - Recognize life-threatening bleeding
 - Appropriate ways to stop the bleeding
- The help given by an immediate responder can often make the difference between life and death, even before professional rescuers arrive.

With the right training, YOU can help save lives!



Why Do I Need This Training?

**Work-related
injuries**

**Mass
shootings**

Home injuries

**Motor vehicle
crashes**

Bombings

Primary Principles of Immediate Response



- Ensure your own safety
- The **ABCs of Bleeding**

A – Alert – call 9-1-1

B – Bleeding – find the bleeding injury

C – Compress – apply pressure to stop the bleeding by:

1. Covering the wound with a clean cloth and applying pressure by pushing directly on it with both hands, OR
2. Using a tourniquet, OR
3. Packing (filling) the wound with gauze or a clean cloth and then applying pressure with both hands

Primary Principles:

ABCs of Bleeding



B • Bleeding (continued)

What is “life-threatening” bleeding?



Blood spurting out of a wound



Blood soaking the sheet or clothing

Photo courtesy of Norman McSwain, MD, FACS, NREMT-P.

B • Bleeding (continued)

Wounds That Can Lead to Death from Bleeding (1 of 3)

Arm and Leg Wounds

- Most frequent cause of **preventable** death from injury
- Bleeding from these wounds can be controlled by **direct pressure** or a **tourniquet**

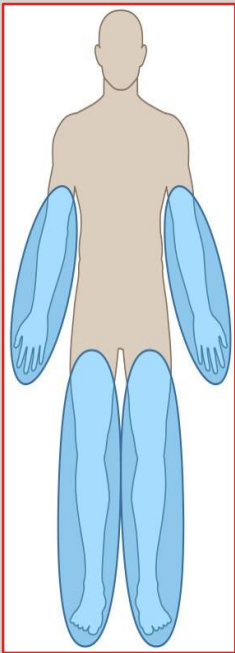


Photo courtesy of Peter T. Pons, MD, FACEP.

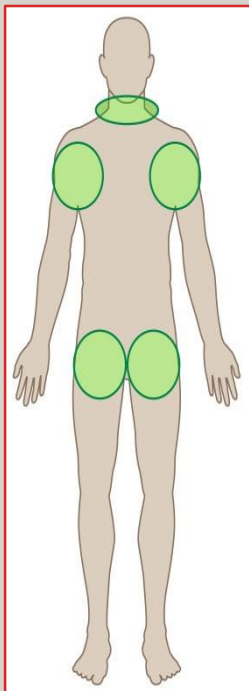
Primary Principles:

ABCs of Bleeding

B • Bleeding (continued)

Wounds That Can Lead to Death from Bleeding

(2 of 3)



Torso Junctional Wounds

- Neck, shoulder, and groin
- Bleeding can be controlled by **direct pressure** and **wound packing**



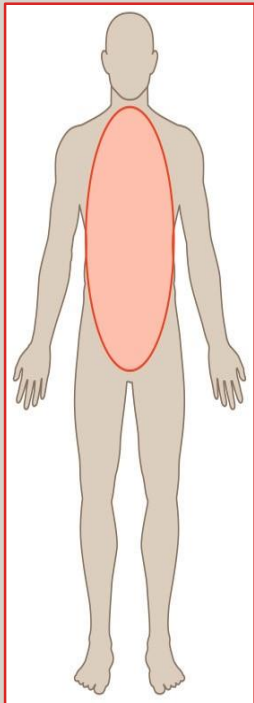
B • Bleeding (continued)

Wounds That Can Lead to Death from Bleeding (3 of 3)

Chest and Abdominal Injuries

- Front, back, or side
- Usually cause internal bleeding

- This bleeding **CANNOT** be stopped outside the hospital
- These victims need rapid transport to a trauma center
- Identify these patients to EMS providers when they arrive



Multiple gunshot wounds

Photo courtesy of Peter T. Pons, MD, FACEP.

ABCs of Bleeding



C • Compression: Stop the Bleeding (continued)

Direct Pressure (1 of 3)

- Use your hand or fingers
 - Use two hands, if at all possible
- Effective most of the time for external bleeding
 - Direct pressure can stop even major arterial bleeding
- Bleeding control requires very firm, continuous pressure until relieved by medical responders
- To be effective, apply pressure with the victim on a firm surface to provide support
- Don't release pressure to check the wound

ABCs of Bleeding



C • Compression: Stop the Bleeding (continued)

Direct Pressure (2 of 3)

- Use any clean cloth (for example, a shirt) to cover the wound
- If the wound is large and deep, try to “stuff” the cloth down into the wound



Photos courtesy of Adam Wehrle, NREMT-P.

Primary Principles:

ABCs of Bleeding



C • Compression: Stop the Bleeding (continued)

Direct Pressure (3 of 3)

- Apply continuous pressure with both hands directly on top of the bleeding wound
- Push down as hard as you can
- Hold pressure until relieved by medical responders



Photo courtesy of Adam Wehrle, NREMT-P.

C • Compression: Stop the Bleeding (continued)

The Tourniquet

- A tourniquet is a device that stops the flow of blood
- If applied correctly, the tourniquet will stop blood flow into the extremity and out of the wound
- Limiting blood loss may prevent the patient from going into shock or dying



Photo courtesy of Norman McSwain, MD, FACS, NREMT-P.

Primary Principles:

ABCs of Bleeding



C • Compression: Stop the Bleeding (continued)

Tourniquet Types

Military research has shown these three tourniquets work the best to control bleeding



Photo courtesy of Peter T. Pons, MD, FACEP

**Combat Application Tourniquet
(C.A.T.)**



Photo courtesy of Peter T. Pons,
MD, FACEP

1st Generation



Photo courtesy of Peter T. Pons,
MD, FACEP

2nd Generation

**SOF Tactical Tourniquet
(SOFTT)**



Photo courtesy of Delfi Medical Innovations, Inc.

**Emergency and
Military Tourniquet
(EMT™)**

Primary Principles:

ABCs of Bleeding



C • Compression: Stop the Bleeding (continued)

C.A.T. Tourniquet

The C.A.T. tourniquet is the military's preferred tourniquet because it is easy to use and can be rapidly applied



Photo courtesy of Composite Resources, Inc.

ABCs of Bleeding



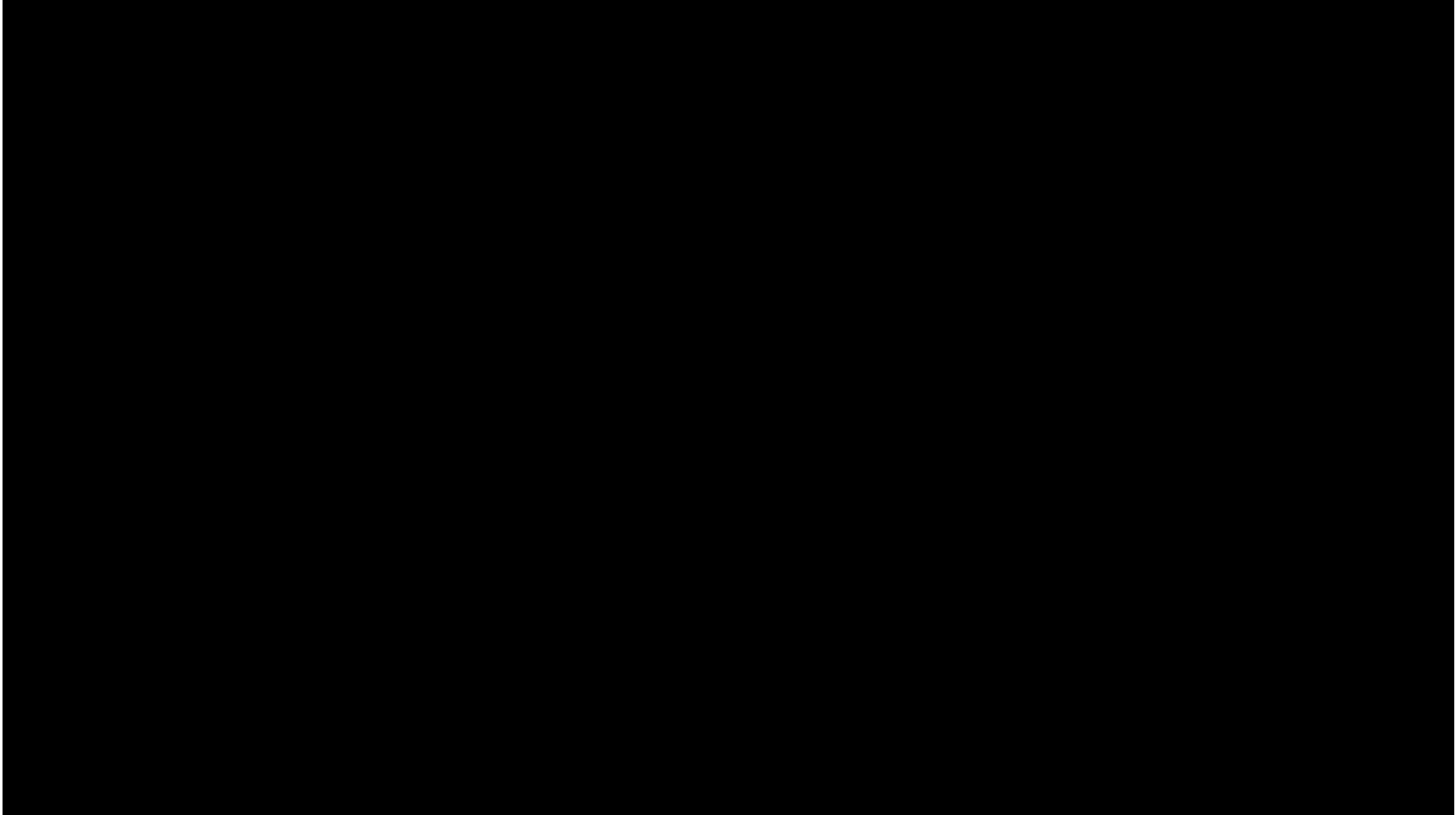
C • Compression: Stop the Bleeding (continued)

Key Points

- Using one of the recommended tourniquets is a safe procedure
 - Improvised (homemade) tourniquets are much less effective than commercially available tourniquets such as the C.A.T. and are difficult to make and apply without extensive practice
- If the bleeding is not stopped with one tourniquet and it is as tight as you can get it, place a second one, if available, just above the first and tighten as before



How to Use a Tourniquet



<https://youtu.be/y81aJ81ln5Q>

ABCs of Bleeding



C • Compression: Stop the Bleeding (continued)

Key Points

- No amputations have been caused by a tourniquet when left in place for fewer than two hours
 - BUT... it is best to get the patient to a trauma center as soon as possible so the bleeding can be completely controlled and the tourniquet removed
- Better to risk damage to the arm or leg than to have a victim bleed to death
- Training (practice) tourniquets should NOT be used during a real patient incident
 - Repetitive use during training exercises may cause the tourniquet to fail

ABCs of Bleeding



C • Compression: Stop the Bleeding (continued)

Common Mistakes

- Not **using** a tourniquet or waiting too long to apply it when there is life-threatening bleeding
- Not making the tourniquet tight enough to stop the bleeding
- Not using a second tourniquet, if needed
- Periodically loosening the tourniquet to allow blood flow to the injured extremity
 - Causes unacceptable additional blood loss—**DO NOT LOOSEN**
- Removing a tourniquet
 - Only a paramedic or physician should loosen or remove it



Primary Principles:

ABCs of Bleeding

C • Compression: Stop the Bleeding (continued)

Hemostatic Dressings (Bleeding Control Dressings)

- Hemostatic dressings are materials that help cause blood to clot
- Examples of hemostatic dressings include:
 - QuikClot (civilian) / Combat Gauze (military)
 - Celox
 - Celox Rapid
 - Chitoflex
 - Chitogauze

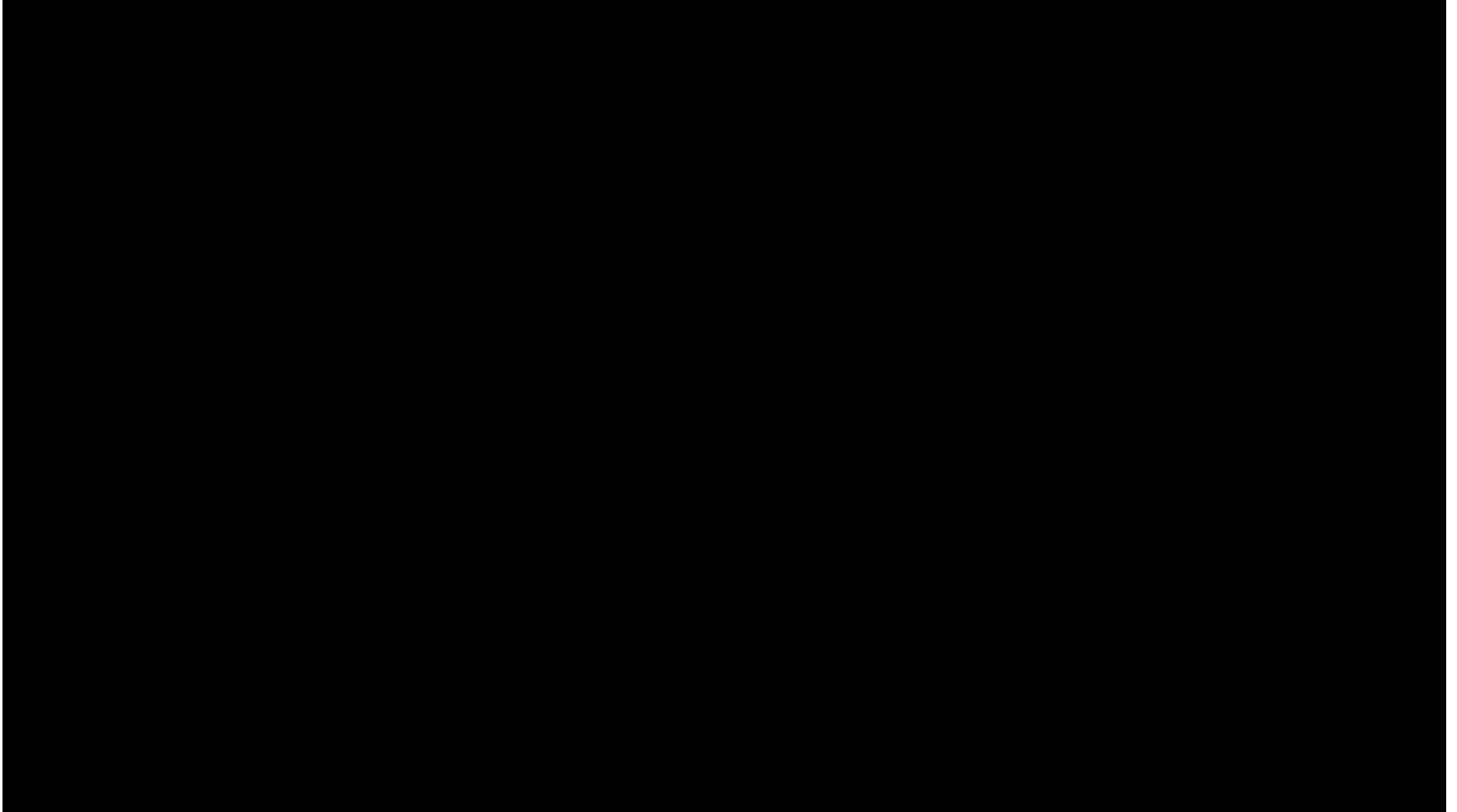


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Photo courtesy of Peter T. Pons, MD, FACEP.

How to Pack a Wound



<https://youtu.be/JfyDaDMk9I4>



Bleeding control in children

- In all but the extremely young child, the same tourniquet used for adults can be used in children.
- For the infant or very small child (tourniquet too big), direct pressure on the wound as described previously will work in virtually all cases.
- For large, deep wounds, wound packing can be performed in children just as in adults using the same technique as described previously.



Blood Exposure

- After arrival of medical responders, if you have any blood on you:
 - Wash thoroughly with soap and water to remove all blood,
 - AND
 - Notify medical responders of possible exposure

Conclusion



**The only thing more tragic than a death...
is a death that **could have been
prevented.****

Personal bleeding control kits



BLEEDINGCONTROL.ORG

Wall-mounted bleeding control kits



BLEEDINGCONTROL.ORG



Who can teach

- Any physician
- Any nurse, NP, PA
- Any EMR, EMT, Paramedic

**After successful completion of B-Con
provider course**

Who can teach



- **Current NAEMT instructors for PHTLS, TCCC or TECCC do not need to complete the B-con provider course before teaching.**
 - **Similarity of course content**



For further information and additional
resources, please visit

BLEEDINGCONTROL.ORG



- **Describe the need for the Stop the Bleed Program**
- **Describe how the average citizen can be prepared to help if the occasion arises**



Lenworth Jacobs,
MD, MPH, FACS



- The Story
- A “three legged stool”
 - Law Enforcement
 - Fire and Emergency Services
 - The Public



Lenworth Jacobs,
MD, MPH, FACS



Understand who should take the B-CON course



Richard Hunt,
MD, FACEP



- National Security Council Staff led Bystander Workgroup
- Bystander Workgroup comprised of leaders/SMEs across federal Departments, Agencies and the White House
- Roundtables:
 - Broad sectors
 - Physician Organization Leaders
 - Healthcare, Public Health, Public Safety, 9-1-1, Emergency Management, EMS, Fire Service, Law Enforcement
 - Logo development
 - Corporate
- White House launch Oct 6, 2015



Richard Hunt,
MD, FACEP





Physicians Roundtable Bystanders: Our Nation's Immediate Responders

Eisenhower Executive Office Building—The White House

February 10, 2015



Standing left to right: RICHARD HUNT, MD, *National Security Council Staff*; WILLIAM SEIFARTH, *Office of Health Affairs, Department of Homeland Security*; WILLIAM WALTERS, MD, *Office of Medical Services, Department of State*; JULIE WOOD, MD, *American Academy of Family Physicians*; ROBERT WERGIN, MD, *President, American Academy of Family Physicians*; FREDERICK AZAR, MD, *President, American Academy of Orthopedic Surgeons*; ALEX ISAKOV, MD, *National Association of EMS Physicians*; DREW DAWSON, *National Highway Traffic Safety Administration, Department of Transportation*; SCOTT NEEDLE, MD, *American Academy of Pediatrics*; GREGORY CHRISTIANSEN, DO, *American Osteopathic Association*; MALIKA FAIR, MD, *Association of American Medical Colleges*; RAY QUINTERO, *American Osteopathic Association*; LENWORTH JACOBS, MD, *American College of Surgeons*; GREGG MARGOLIS, *Office of the Assistant Secretary for Preparedness and Response, Department of Health & Human Services*; CAPT RONNY JACKSON, MD, *Physician to the President*; COL KEVIN O'CONNOR, DO, *Physician to the Vice President*

Sitting left to right: RICH SERINO, *Past Deputy Administrator, Federal Emergency Management Agency, Department of Homeland Security*; WILLIAM FABBRI, MD, *Federal Bureau of Investigation, Department of Justice*; COL FRANCIS O'CONNOR, MD, *American Medical Society for Sports Medicine*; JON DIVINE, MD, *Incoming President, American Medical Society for Sports Medicine*; KATHLEEN WEBER, MD, *President-Elect, MLB Team Physicians Society*; TONY CASOLARO, MD, *NFL Physicians Society*; RITU SAHNI, MD, *Immediate Past President, National Association of EMS Physicians*; DAVID FLEMING, MD, *President, American College of Physicians*; ROGER MITCHELL, MD, *National Association of Medical Examiners*; BRENDAN CARR, MD, *Office of the Assistant Secretary for Preparedness and Response, Department of Health & Human Services*; GWEN CAMP, *Federal Emergency Management Agency, Department of Homeland Security*; ROBERT WAH, MD, *President, American Medical Association*; ANDREW WARSHAW, MD, *President, American College of Surgeons*; ROBERT O'CONNOR, MD, *American College of Emergency Physicians*

Not pictured: RAND BEERS, *Deputy Assistant to the President and Deputy Homeland Security Advisor*; CATHY GOTSCHALL, *National Highway Traffic Safety Administration, Department of Transportation*; MICHAEL GERARDI, MD, *President, American College of Emergency Physicians*; HEATHER KING, *National Security Council Staff*; JUSTIN LINDSAY, *National Security Council Staff*; Col. TODD RASMUSSEN, MD, *Combat Casualty Care Research Program, Department of Defense*; SCOTT SASSER, MD, *Representing the Federal Emergency Management Agency, Department of Homeland Security*; LESLIE SHARFMANN, *Office of Administration, Executive Office of the President*

Focus on bleeding

- 5 minutes or less
- Everyday + disasters
- New experience, new knowledge
- Simple actions / tools impact outcome



- The general public will know the phrase “Stop the Bleed” and its associated logo
- The general public will know how to stop life threatening bleeding
- The general public will have access to effective personal bleeding control kits
- The general public will have access to effective public access bleeding control kits
- Every bleeding control kit will provide “just in time” audio and visual training



- The general public will know the phrase “Stop the Bleed” and its associated logo
 - DoD has entered into 100 public and private sector agreements
 - Logo licensing available by contacting:

MR. RAMIN A. KHALILI
KNOWLEDGE MANAGER
COMBAT CASUALTY CARE RESEARCH PROGRAM
FORT DETRICK, MD

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- The general public will know how to stop life threatening bleeding



No matter how rapid the arrival of professional emergency responders, bystanders will always be first on the scene. A person who is bleeding can die from blood loss within five minutes, so it's important to quickly stop the blood loss.

Remember to be aware of your surroundings and move yourself and the injured person to safety, if necessary.

Call 911.

Bystanders can take simple steps to keep the injured alive until appropriate medical care is available.

Here are three actions that you can take to help save a life:

1. Apply Pressure with Hands

EXPOSE to find where the bleeding is coming from and apply **FIRM, STEADY PRESSURE** to the bleeding site with both hands if possible.



2. Apply Dressing and Press

EXPOSE to find where the bleeding is coming from and apply **FIRM, STEADY PRESSURE** to the bleeding site with bandages or clothing.

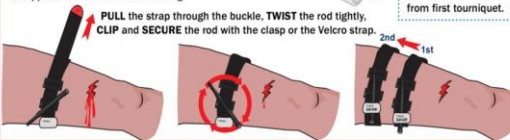


3. Apply Tourniquet(s)

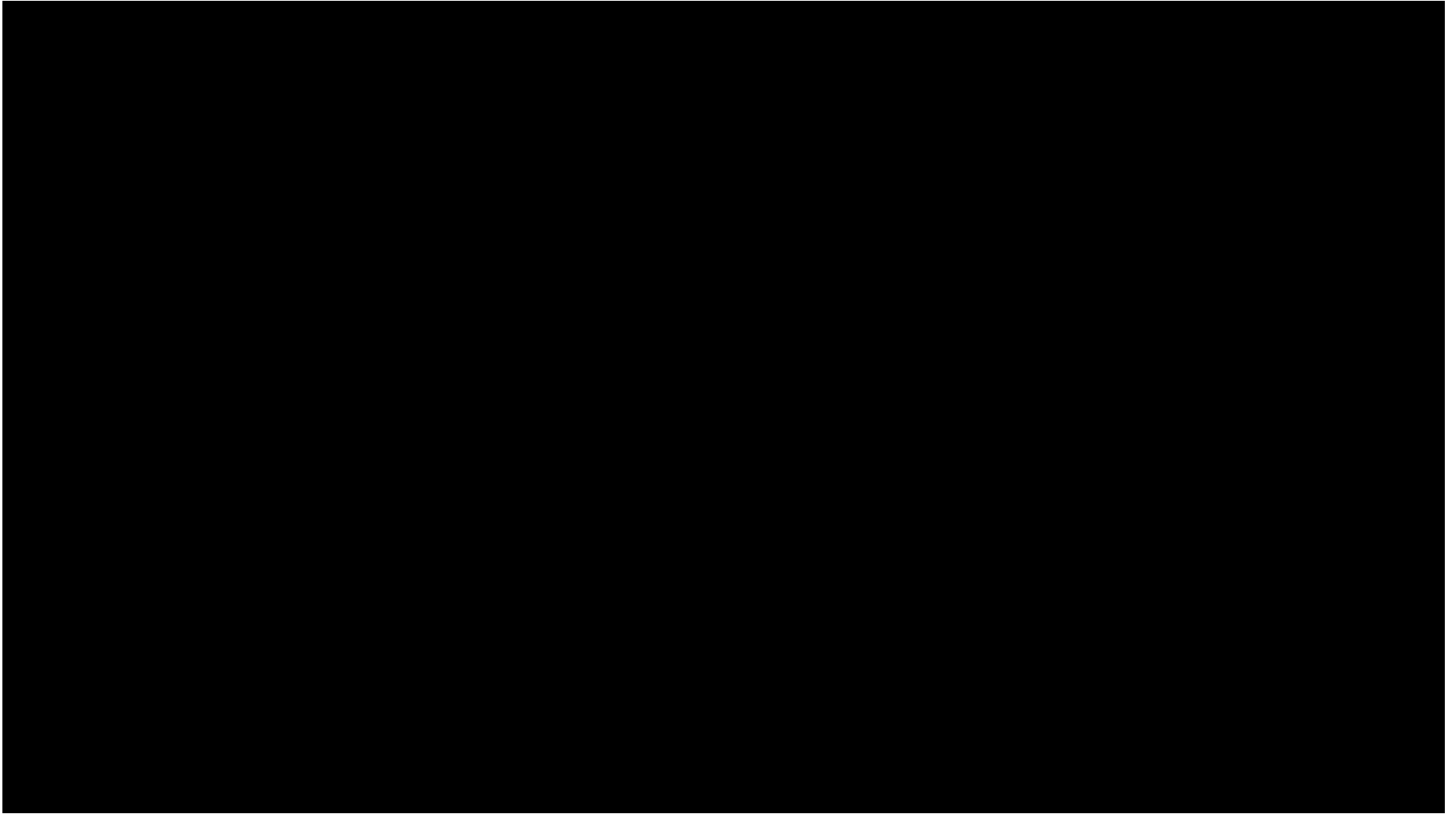
If the bleeding doesn't stop, place a tourniquet 2-3 inches closer to the torso from the bleeding. The tourniquet may be applied and secured over clothing.



If the bleeding still doesn't stop, place a second tourniquet closer to the torso from first tourniquet.



Code Black: Public Safety Announcement



<https://youtu.be/HhIQegL5oVM>

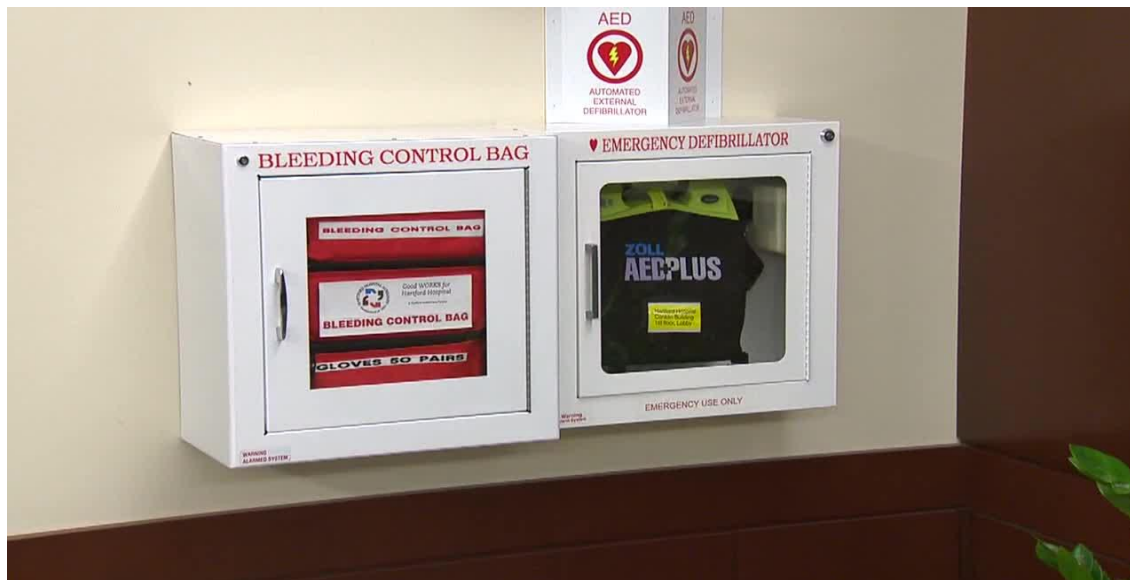


- The general public will have access to effective personal bleeding control kits
 - Minimum contents
 - Effective tourniquet
 - 6" dressing
 - S-rolled gauze
 - Trauma shears
 - Gloves
 - Bag
 - Make accessible to all





- The general public will have access to effective public access bleeding control kits
 - Multiple personal bleeding control kits in one package
 - Next to AEDs





- Every bleeding control kit will provide “just in time” audio and visual training



CHECKLIST FOR EMS MEDICAL DIRECTORS

- ☐ Get the logo, distribute widely
- ☐ Engage communities in Stop the Bleed campaign
- ☐ Adopt local school or organization and teach
- ☐ Initiate peer-to-peer education for public health + primary care
- ☐ Teach Stop the Bleed in your outreach programs
- ☐ Share Stop the Bleed infographic widely
- ☐ Initiate, support and provide EMS medical oversight for placing public access bleeding control kits next to AEDs in your communities
- ☐ When a bystander takes action, thank that person

“Our challenge and opportunity is not just about saving lives from immediate life threats. It is not just about cost-benefit analyses. And it goes far beyond increasing survival from daily occurring and catastrophic tragedies. It is about building resilience of people through increasing personal and community efficacy and effectiveness. It is about building on a foundation of the public’s propensity to act and willingness to intervene. And it is about building a community narrative, speaking to the notion of a nation of people who are self-propelled and who have a spirit of taking care of each other, especially in their most desperate moments of need. This is who we are as a nation.”

Paraphrased from Dr. Herman B. “Dutch” Leonard of the Harvard Kennedy School and Harvard Business School, lead author of *Why Was Boston Strong? Lessons from the Boston Marathon Bombing*



Questions?

- Please use the chat box or
- Signal the operator that you have a question.