

Hemorrhage Control Overview for Law Enforcement

Demo by Alexander L. Eastman

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COPS
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About Alexander L. Eastman:

Lieutenant Alexander L. Eastman is the deputy medical director of the Dallas Police Department and the lead medical officer for the Dallas Police SWAT Team. He also serves in a similar capacity for The University of Texas System Police. Eastman is actively involved in national planning for law enforcement medical support through The USDOJ's Officer Safety and Wellness Group, the Committee on Tactical Emergency Casualty Care, and The Hartford Consensus Working Group. In addition, he recently participated in the USDHS Active Shooter Stakeholder Forum. Eastman is also the interim medical director of the Trauma Center at Parkland Memorial Hospital and an assistant professor and

trauma surgeon in the Division of Burns, Trauma and Critical Care at UT Southwestern Medical Center. A graduate with distinction of the George Washington University School of Medicine, he completed his general surgery and two fellowships at The University of Texas Southwestern Medical School/Parkland Memorial Hospital. He is board-certified in both General Surgery and Surgical Critical Care and has a master's degree in Public Health from The University of Texas Health Science Center–Houston. His research interests include the pre-hospital care of the injured, novel methods of hemostasis, cost effective wound care, and the interface between medicine, law enforcement, and public health.

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About This Transcript

The following content is a transcript of the video slideshow *Hemorrhage Control Overview for Law Enforcement*, which is available online at www.cops.usdoj.gov/Default.asp?Item=2729.

Medical Disclaimer

The *Hemorrhage Control Overview for Law Enforcement* demonstration is posted with permission from Lieutenant Alex Eastman. This demonstration is for general informational purposes only and is not intended as professional medical training, advice, diagnosis or treatment and should not serve as the basis for any medical decision. Reliance on any information provided in this demonstration is solely at your own risk.

Introduction by COPS Staff

In this slideshow, Lieutenant and Deputy Medical Director Alex Eastman of Dallas (Texas) Police Department provides an overview of the Dallas Police Hemorrhage Control Program.¹ Law enforcement officers are often the first to respond to a scene involving persons with critical injuries and have an opportunity to save lives threatened by uncontrolled bleeding.² Efforts are underway by a collaborative of law enforcement, emergency responders, and trauma surgeons, referred to as the Hartford Consensus, to train law enforcement officers in medical care procedures for hemorrhage control to maximize survival of injured community members and public safety personnel at active shooter and mass casualty events.^{3, 4, 5}

1 Deborah L. Spence, "Enhancing Survivability at Mass Casualty Events," *Community Policing Dispatch* 6, no. 12 (2013), http://cops.usdoj.gov/html/dispatch/12-2013/enhancing_survivability_at_mass_casualty_events.asp.

2 Lenworth M. Jacobs, David Wade, Norman E. McSwain, Frank K. Butler, William Fabbri, Alexander Eastman, Alasdair Conn, and Karyl J. Burns, "Hartford Consensus: A Call to Action for THREAT, a Medical Disaster Preparedness Concept," *Journal of the American College of Surgeons* 218, no. 3 (2014): 467, doi:10.1016/j.jamcollsurg.2013.12.009.

3 Joint Committee to Create a National Policy to Enhance Survivability From Mass-Casualty Shooting Events, "Improving Survival from Active Shooter Events: The Hartford Consensus," *Bulletin of the American College of Surgeons* 98, no. 6:14–16, <http://bulletin.facs.org/2013/06/improving-survival-from-active-shooter-events/>.

4 Joint Committee to Create a National Policy to Enhance Survivability From Mass Casualty Shooting Events, "Active Shooter and Intentional Mass-Casualty Events: The Hartford Consensus II," *Bulletin of the American College of Surgeons* 98, no. 8, <http://bulletin.facs.org/2013/09/hartford-consensus-ii/>.

5 *American College of Surgeons*, "Training Begins for Police Officers to Control Bleeding of Mass-Casualty Victims in the U.S.," news release, February 27, 2014, <http://www.facs.org/news/jacs/hartford0214.html>.

Bandage Demo

All right. So for mild to moderate hemorrhage, we recommend the use of the Olaes Modular Bandage. The Olaes bandage, made by Tactical Medical Solutions, is a great combination bandage for you to use. The steps are pretty easy.

Pretty much the first thing you do is open the package. Remove the bandage from the package. If you need instructions for use, there are some rudimentary instructions that come on the outside of the packaging material.

Once you get the bandage open, it has several key components. The first of these components is a white, absorbent gauze material (figure 1). The second most important of these components is the elastic bandage that is around the edge (figure 2). This is used to generate pressure when you apply the bandage.

Figure 1



Figure 2



To apply the Olaes bandage, you take the bandage and apply it to the officer's wounded extremity (figure 3), placing the white piece over the wound and wrapping the bandage as tight as possible (figure 4). You use the elastic of the bandage by starting away from the patient's heart, as far away down their arm, and covering the entirety of the bandage with that elastic. There's a plastic piece embedded in the outside of the bandage that is designed to apply pressure to the wound. That plastic piece should be just on the other side of the wound from the white absorbent portion of the bandage.

Figure 3



Figure 4



By using the elastic incorporated into the bandage and wrapping the wound tight, you can achieve a very-easy-to-apply pressure dressing. The bandage has Velcro included in it, which you can use to secure the bandage at the end. The finished product should feel firm, almost like a cast (figure 5). That way you know you've applied enough pressure to the wound to stop the bleeding.

Figure 5



Tourniquet Demo

The next piece of equipment we use and we recommend is a Special Operations Forces Tourniquet. This tourniquet is one of two that is approved by the Committee on Tactical Combat Casualty Care for use in the United States military. This tourniquet comes pre-folded for use, where all you have to do is open the tourniquet. Right out of the package it's ready to go (figure 6). The tourniquet has some important pieces. It has a buckle and a clip that secures it shut. It's got a free end to pull on that you tighten. It has a windlass; that's the way you tighten the tourniquet up to stop bleeding (figure 7).

Figure 6



Figure 7



Tourniquets should be used for life-threatening hemorrhage only. The way that you use them is simply to put the tourniquet between the heart and the bleeding wound. You do not want to put the tourniquet below the bleeding wound, as that will cause an increase in bleeding. When you have a wound to the arm like you see in the picture here, the tourniquet goes above the bandage that you've already applied (figure 8). This would be used if the bleeding continues.

To place this tourniquet, you can either simply slide it over the wounded officer's arm, or if you cannot slide it over the wounded officer's arm for some reason, you can simply remove the clip here by separating this, and it will open, and then you can pass the free end around the wounded officer's arm, reconnect it, and then begin the process of tightening the tourniquet (figure 9).

Figure 8



Figure 9



Once you've got the tourniquet in the proper position, you simply cinch down on the free end of the strap that's open until it's snug (figure 10, see next page). Then you turn the windlass that's on the tourniquet until the bleeding stops. It's important that you continue to turn this windlass until all hemorrhage is controlled. It will be tighter than you anticipate, and it could elicit some discomfort in the person who you're saving.

Once the bleeding is controlled, you take the tourniquet, put the end through the plastic clip that's on the bandage, and secure it in place. It's very important, once you get this tourniquet on, that you get the wounded officer to medical attention as fast as possible. Do not loosen the tourniquet. Don't take it off until you've arrived at a trauma center.

Figure 10



Gauze Demo

The final piece of the Dallas Police Department Hemorrhage Control Program is Quick Clot Combat Gauze, which you see here in the picture (figure 11). Quick Clot Combat Gauze is a specially impregnated gauze that's designed to control hemorrhage where tourniquets are not appropriate. This would be in the chest, the torso, the neck—those areas.

Figure 11



The instructions for use on the Combat Gauze are on the back of the package, but it is a key component of our hemorrhage control program.

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