

**Audience:** P-12 Faculty in Texas Public Schools

*Deliberate Learning Goals*

Given a 21st century learning environment, participants will assess and apply a lifesaving intervention to mitigate severe extremity bleeding in response to an active shooter or other contributing element in accordance with Texas legislation H.B. No. 496 requirement for training of public-school personnel to control bleeding (Hawkins, 2019).

**Learning objectives:**

1. Respond to injured person and partner.
2. Assess trauma.
3. Recognize severe bleeding from mechanisms of injury (i.e. gunshot wound, blast, etc.).
4. Collaborate in small groups.
5. Apply field expedient tourniquet working.
6. Create improvised tourniquet from classroom supplies.

Classroom Supplies: scissors, garments, rulers, pencils, towels, pointers, tape, and highlighters.

*Shared Collaboration*

**Activity:** Following a period of instruction, learners will collaborate in groups of two to create and apply an improvised tourniquet to treat a severe extremity bleed using classroom material in response to an injury following a casualty assessment. Learners will time each other.

*Reaching Serendipitous Learning Goals*

Step 1: Select and prepare materials. Cut cravats from selected fabric material. Prepare windlass with rigid materials and tape to form a stick.

Step 2: Perform blood sweep to identify bleeding.

Step 3. Place initial cravat two inches over severe bleed and tie with a half knot (*depicted in below image*).

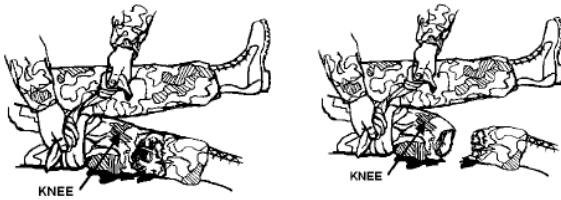


Figure 1: Armystudyguide.com. (2018). Tourniquet Application. Retrieved July 19, 2020, from [https://www.armystudyguide.com/content/army\\_board\\_study\\_guide\\_topics/First\\_Aid/tourniquets.shtml](https://www.armystudyguide.com/content/army_board_study_guide_topics/First_Aid/tourniquets.shtml). Copyright 2018

Step 4. Place a rigid object (stick) over the half knot and tie a full knot over the stick (*depicted in below image*).

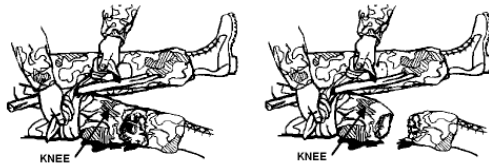


Figure 2: Armystudyguide.com. (2018). Tourniquet Application. Retrieved July 19, 2020, from [https://www.armystudyguide.com/content/army\\_board\\_study\\_guide\\_topics/First\\_Aid/tourniquets.shtml](https://www.armystudyguide.com/content/army_board_study_guide_topics/First_Aid/tourniquets.shtml). Copy right 2018

Step 5. Twist the rigid object (stick) until bleeding has stopped (*depicted in below image*).

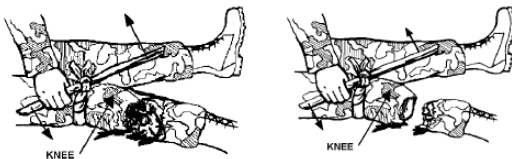


Figure 3: Armystudyguide.com. (2018). Tourniquet Application. Retrieved July 19, 2020, from [https://www.armystudyguide.com/content/army\\_board\\_study\\_guide\\_topics/First\\_Aid/tourniquets.shtml](https://www.armystudyguide.com/content/army_board_study_guide_topics/First_Aid/tourniquets.shtml) Copy right 2018

Step 6. Secure the windlass with an additional cravat tied with a full knot to the rigid object above or below the initial cravat (*depicted in below image*).

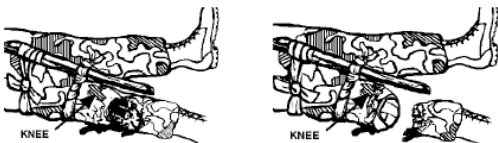


Figure 4: Armystudyguide.com. (2018). Tourniquet Application. Retrieved July 19, 2020, from [https://www.armystudyguide.com/content/army\\_board\\_study\\_guide\\_topics/First\\_Aid/tourniquets.shtml](https://www.armystudyguide.com/content/army_board_study_guide_topics/First_Aid/tourniquets.shtml) Copy right 2018

*Private Process*

**Self-Assessment:** Following the application, learners will assess the effectiveness of tourniquet application against the following guidelines:

- Appropriate selection of materials
- Absence of space.
- Absence of pulse.

**Instructor Evaluation and Summary**

*End of learning period.*

## References

Armystudyguide.com. (2018). Tourniquets. Retrieved July 19, 2020, from [https://www.armystudyguide.com/content/army\\_board\\_study\\_guide\\_topics/First\\_Aid/tourniquets.shtml](https://www.armystudyguide.com/content/army_board_study_guide_topics/First_Aid/tourniquets.shtml)

Center for Army Lessons Learned. (2017). *Tactical Combat Casualty Care Handbook, Version 5* [PDF]. US Army Combined Arms Center: Center for Army Lessons Learned.

Cohen, J., Jones, W. M., Smith, S., & Calandra, B. (2017). Makification: Towards a Framework for Leveraging the Maker Movement in Formal Education. *Makification: Towards a Framework for Leveraging the Maker Movement in Formal Education*. [PDF] Learning Technologies Division Faculty Publications

Department of Defense, & American College of Surgeons. (2020). Home: Stop the Bleed. Retrieved July 19, 2020, from <https://www.stopthebleed.org/>

Hawkins. G. (2019). H.B. 496. Retrieved. July 19, 2020, from <https://capitol.texas.gov/tlodocs/86R/billtext/html/HB00496I.htm>