



Illinois College
of Emergency Physicians



American College of
Emergency Physicians®

ADVANCING EMERGENCY CARE 

Tackling the Golden Hour – Trauma Tools for the Emergency Physicians

**Activity Front Matter / Disclosure to Learners
Individuals in Control of Content / Commercial Support**

Course Overview:

Tackling the Golden Hour – Trauma Tools for the Emergency Physician is an internet enduring activity that will take approximately 4.25 hours to complete in its entirety. To receive CME, you must:

1. **Read** and agree to all activity information on this page.
2. **Read** and agree to all activity front matter/information on this page.
3. **Participate** fully in educational content to include listening to or reading lecture material in its entirety
4. **Complete** activity evaluation.
5. **Attest** to completing the activity according to the steps referenced above.

This activity is designed for all levels of emergency care providers.

This activity was released on July 1, 2022 and the accreditation period expires on June 30, 2025.

Program Description:

Trauma is a significant global health issue, leading to more than 4.6 million deaths annually worldwide.¹ In the United States, injury is the primary cause of death in people ages 1 to 44 years, and the fourth leading cause of death overall. Trauma does not discriminate. Patients with a significant mechanism of injury, at the extremes of life (pediatrics and geriatrics), and with medical co-morbidities and polypharmacy are at increased risk of hemorrhage, shock, and mortality. This program will provide updates of relevant clinical topics regarding trauma care for Emergency Medicine physicians to guide their management and care of these critical patients.

The program includes:

- 4 narrated PowerPoints
- 4.25 hours of *AMA PRA Category 1 Credits*[™] continuing medical education

The HTML-based online course includes embedded narrated PowerPoint-based presentation followed by an evaluation and CME attestation of the program.

Program Objective:

After completing this activity, learners should be able to describe skills to provide quality trauma care in their Emergency Departments and exemplify mastery of the content of trauma related procedures, TBI and Hemorrhage control.

Individuals in Control of Content:

- Kristen Donaldson MD, MPH, FACEP – Planner, Faculty
- Brandon B. Bless, MD, EMT-T, FAAEM, FAEMS – Faculty
- Claudine Feliciano, DO – Faculty
- Lora Finucane – Planner, Reviewer
- Jolie C. Holschen, MD, FACEP, FAMSSM – Faculty
- Jennifer Rosario, MD, FACEP - Faculty
- Janet Lin, MD, MPH, MBA, FACEP – Planner

Accreditation Information:

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the American College of Emergency Physicians and the Illinois College of Emergency Physicians. The American College of Emergency Physicians is accredited by the ACCME to provide continuing medical education for physicians.

The American College of Emergency Physicians designates this enduring material for a maximum of 4.25 *AMA PRA Category 1 Credits*[™]. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Approved by the American College of Emergency Physicians for a maximum of 4.25 hours of ACEP Category I credit.

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- Before learners engage with the accredited education
- In a format that can be verified at the time of accreditation

The following individuals have reported relationships with ineligible companies, as defined by the ACCME. These relationships, in the context of their involvement in the CME activity, could be perceived by some as a real or apparent conflict of interest. All relevant financial relationships have been mitigated to ensure that no commercial bias has been inserted into the educational content.

Individual	Company Name	Type of Relationship
Janet Lin, MD, MPH, MBA, FACEP	Gilead Sciences, Novo Nordisk	Other (Grant Funding for research projects)

All remaining individuals with control over content have no relevant financial relationships to disclose.

Disclosure of Commercial Support:

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No commercial support was received.

CME Certificates:

Once participation is successfully verified, ICEP will forward a CME certificate of completion within 14 working days. Please note that *AMA PRA Category 1 Credits™* may be awarded one (1) time in conjunction with your purchase during the 1-year period.

Questions or Comments:

For questions, concerns, or suggestions about accreditation, please contact: cmecoordinator@acep.org

For questions, concerns, or suggestions about course design, please contact:

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Software Requirements & Technical Specifications:

- Internet connection with Google Chrome, Mozilla Firefox, Safari, Microsoft Edge, or Internet Explorer 11
- Windows, Mac, and Linux desktop operating systems are supported.
- Android 4.1, 4.4, 5.0 and 6.0 are supported.
- iOS 9 and above are supported.
- We always recommend using the newest version of any software, when possible.

If you are having trouble viewing courses with one of browsers listed above, try clearing your browser's cache.

Support:

If, after reading these instructions, you have questions about how **Tackling the Golden Hour – Trauma Tools for the Emergency Physician** program works, you may contact ICEP by phone toll-free at 888-495-ICEP or email info@icep.org. Support is limited to the use of the webinar and CME application process.

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<https://www.icep.org/wp-content/uploads/2012/12/Privacy-and-Terms.pdf>

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References:

The content for the **Tackling the Golden Hour – Trauma Tools for the Emergency Physician** program can be referenced to:

MODULE #1 – Non-Accidental Trauma in Pediatric Patients:

- Christian CW; Committee on Child Abuse and Neglect, American Academy of Pediatrics. The evaluation of suspected child physical abuse. *Pediatrics*. 2015 May;135(5):e1337-54. doi: 10.1542/peds.2015-0356. Erratum in: *Pediatrics*. 2015 Sep;136(3):583. PMID: 25917988.
- Campbell KA, Olson LM, Keenan HT. Critical Elements in the Medical Evaluation of Suspected Child Physical Abuse. *Pediatrics*. 2015 Jul;136(1):35-43. doi: 10.1542/peds.2014-4192. Epub 2015 Jun 22. Erratum in: *Pediatrics*. 2015 Oct;136(4):782. PMID: 26101359; PMCID: PMC4633602.
- Lee GS, Lindberg DM, Frasier LD, Hymel KP. A changing history: When is it a red flag for child abuse? *Child Abuse Negl*. 2021 Jul;117:105077. doi: 10.1016/j.chiabu.2021.105077. Epub 2021 Apr 28. PMID: 33930662.
- Riney L, Frey T, Fain E, Duma E, Chambers P. Improving Communication With Families for Evaluation of Child Abuse. *J Patient Exp*. 2020 Dec;7(6):827-829. doi: 10.1177/2374373520950987. Epub 2020 Aug 20. PMID: 33457503; PMCID: PMC7786754.
- Bariciak ED, Plint AC, Gaboury I, Bennett S. Dating of bruises in children: an assessment of physician accuracy. *Pediatrics*. 2003 Oct;112(4):804-7. doi: 10.1542/peds.112.4.804. PMID: 14523170.
- Pilling ML, Vanezis P, Perrett D, Johnston A. Visual assessment of the timing of bruising by forensic experts. *J Forensic Leg Med*. 2010 Apr;17(3):143-9. doi: 10.1016/j.jflm.2009.10.002. Epub 2010 Jan 19. PMID: 20211455.
- Pierce MC, Kaczor K, Aldridge S, O'Flynn J, Lorenz DJ. Bruising characteristics discriminating physical child abuse from accidental trauma. *Pediatrics*. 2010 Jan;125(1):67-74. doi: 10.1542/peds.2008-3632. Epub 2009 Dec 7. Erratum in: *Pediatrics*. 2010 Apr;125(4):861. PMID: 19969620.

- Dunstan FD, Guildea ZE, Kontos K, Kemp AM, Sibert JR. A scoring system for bruise patterns: a tool for identifying abuse. *Arch Dis Child*. 2002 May;86(5):330-3. doi: 10.1136/ad.86.5.330. PMID: 11970921; PMCID: PMC1751094.

MODULE #2 – Key Concepts in the Management of Mild Traumatic Brain Injury for the Emergency Physician:

- McCrory P, Meeuwisse W, Dvorak J, *et al* Consensus statement on concussion in sport—the 5th international conference on concussion in sport held in Berlin, October 2016. *British Journal of Sports Medicine* 2017;51:838-847.
- Kuppermann N, Holmes J, Dayan P, *et al*. Identification of children at very low risk of clinically-important brain injuries after head trauma: a prospective cohort study. *Lancet*. 2009;374(9696):1160-1170.
- Stiell. Comparison of CT rules. *JAMA*. Sep 2005: Vol 294 (12); 1511-1518.
- Kutcher JS, Giza CC. Sports concussion diagnosis and management. *Continuum* (Minneapolis, Minn). 2014 Dec;20(6 Sports Neurology):1552-69. Doi: 10.1212/01.CON.0000458974.78766.58. PMID: 25470160.
- Lovell MR, Collins MW, *et al*. Grade 1 or “ding” concussions in high school athletes. *AM J Sports Med*. 2004 Jan-Feb;32(1):33-39.
- McKee AC, Cantu RC, *et al*. Chronic Traumatic Encephalopathy in Athletes: Progressive Tauopathy following Repetitive Head Injury. *Neuropath Exp Neurol*, 2009; 68(7): 709-735

MODULE #3 – Trauma Procedure Review – Acting Fast and Under Pressure:

- Adams J. (2013). *Rosen’s Emergency Medicine: Concepts and Clinical Practice*. Mosby Elsevier.
- Barrie, M., Rublee, C., & Kaide, C. (2018). *Airway management in trauma*. Relias Media - Continuing Medical Education Publishing. Retrieved February 16, 2022, from <https://www.reliasmedia.com/articles/141864-airway-management-in-trauma>
- Boswell Kim. Thoracotomy. In: Mattu A and Swadron S, ed. CorePendum. Burbank, CA: CorePendum, LLC. <https://www.emrap.org/corependium/chapter/recjyYbSPTbtJNjE/Thoracotomy#h.o5f334q9lf2x>. Updated December 2, 2021.
- Boyd, A. Edited by Bhandari, S. (2016) *Core EM: Peri-Mortem C-Section*. emDOCS. www.emdocs.net/core-em-peri-mortem-c-section/. accessed 17 June 2018
- Brown, C. A. (2017). *The Walls Manual of Emergency Airway Management*. (J. C. Sakles & N. W. Mick, Eds.) (5th ed.). Wolters Kluwer.
- Burlew, C. C., Moore, E. E., Moore, F. A., Coimbra, R., McIntyre, R. C., Jr, Davis, J. W., Sperry, J., & Biffi, W. L. (2012). Western Trauma Association critical decisions in trauma: resuscitative thoracotomy. *The journal of trauma and acute care surgery*, 73(6), 1359–1363. <https://doi.org/10.1097/TA.0b013e318270d2df>
- Campbell, T. A., & Sanson, T. G. (2009). Cardiac arrest and pregnancy. *Journal of emergencies, trauma, and shock*, 2(1), 34–42. <https://doi.org/10.4103/0974-2700.43586>
- Einav, S., Kaufman, N., & Sela, H. Y. (2012). Maternal cardiac arrest and perimortem caesarean delivery: evidence or expert-based?. *Resuscitation*, 83(10), 1191–1200. <https://doi.org/10.1016/j.resuscitation.2012.05.005> Horton, C. L., Brown, C. A., 3rd, & Raja,

-
- A. S. (2014). Trauma airway management. *The Journal of emergency medicine*, 46(6), 814–820. <https://doi.org/10.1016/j.jemermed.2013.11.085>
- Jones RF, Rivers EP (2019). “Resuscitative Thoracotomy”. In Roberts, J., Custalow, C., Thomsen, T, et al (Eds.) *Roberts and Hedges’ Clinical Procedures in Emergency Medicine and Acute Care*. (7th edition, pp338-352). Elsevier.
 - Marx, J.A., Hockberger, R.S., Walls, R.M. & Lindquist Benjamin, Mahadevan S.V.. Penetrating Thoracic Trauma. In: Mattu A and Swadron S, ed. CorePendium. Burbank, CA: CorePendium, LLC. <https://www.emrap.org/corependium/chapter/recvZRk5y5kwBoY7X/Penetrating-Thoracic-Trauma>. Updated February 12, 2021.
 - Nadir, N., LeClair, C., Ahmed, A. & Podolej, G. (2017). The Casserole Perimortem Cesarean Section (PCS) Model. *JETem*, 2(3):122-28. <https://doi.org/10.21980/J8FK8H>
 - Rezaie, S. "Rebellion in EM 2019: Resuscitative Hysterotomy via Jaime Hope, MD", REBEL EM blog, February 3, 2020. Available at: <https://rebelem.com/rebellion-in-em-2019-resuscitative-hysterotomy-via-jaime-hope-md/>.
 - Seamon, M. J., Haut, E. R., Van Arendonk, K., Barbosa, R. R., Chiu, W. C., Dente, C. J., Fox, N., Jawa, R. S., Khwaja, K., Lee, J. K., Magnotti, L. J., Mayglothling, J. A., McDonald, A. A., Rowell, S., To, K. B., Falck-Ytter, Y., & Rhee, P. (2015). An evidence-based approach to patient selection for emergency department thoracotomy: A practice management guideline from the Eastern Association for the Surgery of Trauma. *The journal of trauma and acute care surgery*, 79(1), 159–173. <https://doi.org/10.1097/TA.0000000000000648>
 - Weare S, Gnugnoli DM. (Updated 2021 Dec 9). *Emergency Room Thoracotomy*. StatPearls Publishing. <https://www.ncbi.nlm.nih.gov/books/NBK560863/>. Access date 24 August 2021

Images from:

- Trimodal Distribution of Trauma Deaths. More the Merrier – PowerPoint Presentation by Burke, P. https://www.facs.org/-/media/files/quality-programs/trauma/zpd-conf/07_burke.ashx.
- Structure of trachea. Furlow PW, Mathisen DJ. Surgical anatomy of the trachea. *Ann Cardiothorac Surg*. 2018;7(2):255-260. doi: 10.21037/acs.2018.03.01
- Surgical Airway. Accessed from <https://www.grepmed.com/images/474/cricothyroidotomy-surgicalairway-criticalcare-instructions-management>
- Scalpel Finger Bougie. Salim Rezaie, "Bougie-Assisted Cricothyrotomy", REBEL EM blog, February 26, 2021. Available at: <https://rebelem.com/bougie-assisted-cricothyrotomy/>.
- Tube thoracostomy image. Mohammed, H. (2015). Chest tube care in critically ill patient: A comprehensive review. *Egyptian Journal of Chest Diseases and Tuberculosis*, 64 (4), 849–855. <https://doi.org/10.1016/j.ejcdt.2015.06.002>.
- Resuscitative thoracotomy photograph. From Cothren, C. C., & Moore, E. E. (2006). Emergency department thoracotomy for the critically injured patient: Objectives, indications, and outcomes. *World journal of emergency surgery : WJES*, 1, 4. <https://doi.org/10.1186/1749-7922-1-4>. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/2.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.
- Heart with left phrenic nerve photograph. From Damián Sánchez-Quintana, José Ramón López-Mínguez, Yolanda Macías, José Angel Cabrera, Farhood Saremi, "Left Atrial Anatomy

Relevant to Catheter Ablation", *Cardiology Research and Practice*, vol. 2014, <https://doi.org/10.1155/2014/289720>

- Thoracotomy diagram. Accessed from <https://healthjade.com/thoracotomy/>. Unable to locate artist/original publication.
- Left lateral uterine displacement diagrams. From Vanden Hoek, T et al. (2010). 2010 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care – Part 12: Cardiac Arrest in Special Situations. *Circulation*, 122(18). <https://doi.org/10.1161/CIRCULATIONAHA.110.971069>
- Perimortem C-section image. Healy, M et al. (2016). Care of the Critically Ill Pregnant Patient and Perimortem Cesarean Delivery in the Emergency Department. *Journal of Emergency Medicine*, 51 (2), 172-177. <https://doi.org/10.1016/j.ejcdt.2015.06.002>. Accessed via <https://litfl.com/wp-content/uploads/2019/01/Perimortem-Caesarean-section-1024x640.png>

MODULE #4 – Out of Hospital Hemorrhage Control:

- Elster EA, Butler FK, Rasmussen TE. Implications of Combat Casualty Care for Mass Casualty Events. *JAMA*. 2013;310(5):475–476.
- National Academies of Sciences, Engineering, and Medicine. 2016. *A national trauma care system: Integrating military and civilian trauma systems to achieve zero preventable deaths after injury*. Washington, DC: The National Academies Press.
- Kragh JF Jr, Littrel ML, Jones JA, et al. Battle casualty survival with emergency tourniquet use to stop limb bleeding. *J Emerg Med*. 2011 Dec;41(6):590-7.
- Committee on Injuries, American Academy of Orthopedic Surgeons. *Emergency care and transportation of the sick and injured*. W.B Saunders Co.: Philadelphia, Pa., 1971.
- Smith ER, Shapiro G, Sarani B. The profile of wounding in civilian public mass shooting fatalities. *J Trauma Acute Care Surg*. 2016 Jul;81(1):86-92.
- Mabry RL, Holcomb JB, Baker AM, et al. United States Army Rangers in Somalia: an analysis of combat casualties on an urban battlefield. *J Trauma*. 2000;49:515–528; discussion 528–529.
- Heldenberg E, Aharon S, Wolf T, Vishne T. Evaluating new types of tourniquets by the Israeli Naval special warfare unit. *Disaster Mil Med*. 2015 Jan 27;1:1.
- Gibson R, Housler GJ, Rush SC, Aden JK 3rd, Kragh JF Jr, Dubick MA. Preliminary Comparison of New and Established Tactica Tourniquets in Manikin Hemorrhage. *J Spec Oper Med*. 2016 Spring;16(1):29-35.
- Shipman N, Lessard CS. Pressure applied by the emergency/Israeli bandage. *Mil Med*. 2009 Jan;174(1):86-92.
- Kragh JF Jr, Cooper A, Aden JK, Dubick MA, Baer DG, Wade CE, Blackburne LH. Survey of trauma registry data on tourniquet use in pediatric war casualties. *Pediatr Emerg Care*. 2012 Dec;28(12):1361-5.
- Blane G(1785). *Observations on the diseases incident to seamen*. London: Joseph Cooper; Edinburgh: William Creech. pp. 498–499.
- Lakstein D, Blumenfeld A, Sokolov T, et al. Tourniquets for hemorrhage control on the battlefield: a 4-year accumulated experience. *J Trauma*. 2003;54(5 suppl):S221–S225.
- Morrison JJ, Dubose JJ, Rasmussen TE, Midwinter MJ. Military Application of Tranexamic Acid in Trauma Emergency Resuscitation (MATTERS) Study. *Arch Surg*. 2012;147(2): 113-9.

-
- Gayet-Ageron A et al. Effect of Treatment Delay on the Effectiveness and Safety of Antifibrinolytics in Acute Severe Haemorrhage: A Meta-Analysis of Individual Patient-Level Data From 40138 Bleeding Patients. *Lancet* 2017.
 - Shina A, Lipsky AM, NAdler R, Levi M, et al. Prehospital use of hemostatic dressings by the Isreal Defense Forces Medical Corps: A case series of 122 patients. *J Trauma Acute Care Surg.* 2015 Oct;79(4 Suppl 2):S204-9.
 - Filips, D., Logsetty, S., Tan, J., Atkinson, I., & Mottet, K. (2013). The iTClamp Controls Junctional Bleeding in a Lethal Swine Exsanguination Model. *Prehospital Emergency Care*, 17(4), 526-532.
 - Wandling MW, Nathens AB, Shapiro MB, Haut ER. Police transport versus ground EMS: A trauma system-level evaluation of prehospital care policies and their effect on clinical outcomes. *J Trauma Acute Care Surg.* 2016 Nov;81(5):931-935.
 - "Trauma medicine has learned lessons from the battlefield". *The Economist*. 12 October 2017.
 - Galvan, Steven. "Tourniquets of the Future: Intelligent." *U.S. Institute of Surgical Research*, 3 May 2012, www.usaisr.amedd.army.mil/news/news_stories/NOV2012_Tourniquets_of_the_Future.html
 - Hardesty, Abe. "Army Medic's Tactical Equipment Company Saves Lives on the Battlefield." *EMS1*, 7 Aug. 2015, www.ems1.com/ems-products/medical/equipment/services/articles/3021971-Army-medics-tactical-equipment-company-saves-lives-on-the-battlefield.
 - Korompilas AV, Beris AE, et al. The mangled extremity and attempt for limb salvage. *J Orthop Surg Res.* 2009 Feb 13;4:4.
 - Taillac P, Bolleter S, Heightman AJ. Wound packing essentials for EMTs and Paramedics. *JEMS.* 42 (4), 2017.
 - Littlejohn LF, Devlin JJ, Kircher SS, Lueken R, Melia MR, Johnson AS. Comparison of Celox-A, ChitoFlex, WoundStat, and combat gauze hemostatic agents versus standard gauze dressing in control of hemorrhage in a swine model of penetrating trauma. *Acad Emerg Med.* 2011 Apr;18(4):340-50.
 - Royal College of Paediatrics and Child Health: Evidence statement. Major trauma and the use of tranexamic acid in children. November 2012 http://www.rcpch.ac.uk/system/files/protected/page/121112_TXA%20evidence%20statement_final%20v2.pdf.
 - Eckert MJ, Wertin TM, et al. Tranexamic acid administration to pediatric trauma patients in a combat setting: the pediatric trauma and tranexamic acid study (PED-TRAX). *J Trauma Acute Care Surg.* 2014 Dec;77(6):852-8.
 - Howard JT, Stockinger ZT, et al. Military use of tranexamic acid in combat trauma: Does it matter? *J Trauma Acute Care Surg.* 2017 Oct;83(4):579-588.
 - Keller M. "Battlefield ER: Combat Medicine Fights To Keep More Troops Alive." *Txchnologist*, 24 Oct. 2013, txchnologist.com/post/64949632380/battlefield-er-combat-medicine-fights-to-keep.
 - Kragh JF Jr, Lunati MP, Kharod CU, Cunningham CW, Bailey JA, Stockinger ZT, Cap AP, Chen J, Aden JK 3d, Cancio LC. Assessment of Groin Application of Junctional Tourniquets in a Manikin Model. *Prehosp Disaster Med.* 2016;31(4):358-363.
 - Chen J, Benov A, et al. Testing of Junctional Tourniquets by Medics of the Israeli Defense Force in Control of Simulated Groin Hemorrhage. *J Spec Oper Med.* 2016 Spring;16(1):36-42.

-
- Sadek S, Lockey DJ, et al. Resuscitative endovascular balloon occlusion of the aorta (REBOA) in the pre-hospital setting: An additional resuscitation option for uncontrolled catastrophic haemorrhage. *Resuscitation*. 2016 Oct;107:135-8.
 - Moore LJ, Brenner M, Kozar RA, et al. Implementation of resuscitative endovascular balloon occlusion of the aorta as an alternative to resuscitative thoracotomy for noncompressible truncal hemorrhage. *J Trauma Acute Care Surg*. 2015;79(4):523-30.
 - Dubose JJ, Scalea TM, Brenner M, et al. The AAST prospective Aortic Occlusion for Resuscitation in Trauma and Acute Care Surgery (AORTA) registry: Data on contemporary utilization and outcomes of aortic occlusion and resuscitative balloon occlusion of the aorta (REBOA). *J Trauma Acute Care Surg*. 2016;81(3):409-19.
 - Inoue J, Shiraishi A, Yoshiyuki A, Haruta K, Matsui H, Otomo Y. Resuscitative endovascular balloon occlusion of the aorta might be dangerous in patients with severe torso trauma: A propensity score analysis. *J Trauma Acute Care Surg*. 2016;80(4):559-66.
 - Vartanian L. "Blood on the Ground." *EMS World*, 17 Jan. 2017, www.emsworld.com/article/12295924/blood-on-the-ground.
 - Escott MEA, Bank EA, et al. Blood Therapy: Considerations for using blood products for prehospital trauma patients. *JEMS*. 2017 Mar;42(3):47-51, 67.
 - Holcomb JB, Donathan DP, et al. Prehospital Transfusion of Plasma and Red Blood Cells in Trauma Patients. *Prehosp Emerg Care*. 2015 January-March;19(1):1-9.
 - HockeyFeed. "Minor League Player Suffers Gruesome Injury (VIDEO)." *HockeyFeed*, HockeyFeed, 26 Oct. 2014, www.hockeyfeed.com/videos/minor-league-player-suffers-gruesome-injury-video.
 - http://www.usaisr.amedd.army.mil/news/news_stories/2015_OCT/USAISR_Research_Crucial_in_Implementing_New_Stop_the%20Bleed_Initiative.html
 - TomoNewsUS. "Hair Clip-Inspired Clamp Device Controls Traumatic Bleeding." *YouTube*, YouTube, 28 Oct. 2013, www.youtube.com/watch?v=txCd7nbP468.
 - SurvivalMetrics. "Trauma & Emergency Bandage, Combat, Israeli Battle Dressing." *YouTube*, YouTube, 22 Nov. 2011, www.youtube.com/watch?v=j9cJXsjVRHc.
 - "OLAES® Modular Bandage Basic Instructions." *YouTube*, YouTube, 1 Sept. 2008, www.youtube.com/watch?time_continue=220&v=YbKDNuLB54A.
 - Narescue. "Jett™ Junctional Emergency Treatment Tool Overview/Instructions for Use." *YouTube*, YouTube, 8 Jan. 2013, www.youtube.com/watch?v=HVY0_y5AE7Q.