

SINGLE SKILL STATION

Junctional Tourniquet Application

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Objective

- Demonstrate the proper application of a commercially available junctional tourniquet.

References

- *PHTLS: Prehospital Trauma Life Support*, Military 8th ed.
- Tactical Combat Casualty Care (TCCC) Curriculum
- SAM Junctional Tourniquet manufacturer guidelines: https://www.sammedical.com/assets/uploads/sjt-instructional-poster_2017-04-10.pdf
- Junctional Emergency Treatment Tool manufacturer guidelines: <https://rmf.ims.allogy.com/pf.tlx/6Q6vd6v5puJp>

Evaluation

- The instructor will verify the student's ability to quickly and effectively apply a junctional tourniquet to a fellow student or manikin by observing the student's procedure and technique.

Equipment

- Volunteer patient or manikin
- Personal protective equipment—1 set per student
- One of the following junctional tourniquets:
 - SAM Junctional Tourniquet (SJT)
 - Combat Ready Clamp (CRoC)
 - Junctional Emergency Treatment Tool (JETT)
 - Abdominal Aortic and Junctional Tourniquet (AAJT)
 - Another junctional tourniquet used by the local EMS system

Instructor Guidelines

1. Ensure that each student has all of the required materials.
2. Read the objective and the evaluation statement to the students.

Performance Steps

Inguinal Hemorrhage

1. The student determines and verbalizes that the injury is not amenable to treatment with a standard limb tourniquet.

2. The student verbalizes cutting away the patient's clothing; for classroom simulation, the student removes all objects from the patient's pockets.
3. The remainder of the steps will be per manufacturer's direction, depending on device used: The student slides the belt underneath the patient, positioning the target compression device (TCD) over the area to be compressed (over the femoral pulse just below the inguinal ligament). The student applies sterile gauze or hemostatic dressing directly over the wound. When treating a unilateral injury and using only one TCD, the belt may be applied from either side, depending on the location of the injury. For bilateral application, use a second TCD.
4. The student holds the TCD in place and connects the belt by snapping the buckle together.
5. The student pulls the brown handles away from each other until the buckle secures. An audible click is heard. The student fastens the excess belt in place by pressing it down on the Velcro strap. A second click may be heard once the belt is secure.
6. The student uses the hand pump to inflate the TCD until hemorrhage stops. In this exercise, the student will verbalize both inflating the TCD and checking for hemorrhage control.
7. The student verbalizes monitoring the casualty during transport for hemorrhage control and adjusting the device if necessary.*

OR

1. The student determines and verbalizes that the injury is not amenable to treatment with a standard limb tourniquet.
2. The student verbalizes cutting away the patient's clothing; for classroom simulation, the student removes all objects from the patient's pockets.
3. Pressure pads should be placed just below the inguinal ligament.
4. The student determines if a bilateral or unilateral application is required.
5. The student unrolls the device in preparation for application.
6. The student slides the belt with "This Side Toward Casualty" facing up under the body at the lower back.
7. The student locates the superior iliac crest and pubic bone connected by the inguinal ligament.

*SAM junctional tourniquet instructions from: https://www.sammedical.com/assets/uploads/sjt-instructional-poster_2017-04-10.pdf

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8. Lifting the trauma patient's hips, the student positions the belt under the patient's buttocks so that the buttocks pad is centered behind the patient, and the pressure pads are immediately below (inferior to) the inguinal ligaments.
9. The student palpates to determine the location of the inguinal ligaments.
10. The student angles the pressure pads parallel to the inguinal ligament (approximately 30°) pointing midline toward the feet, making sure that both pads are correctly positioned.
 - a. *For male casualties:* The student ensures the patient's genitals are clear of the area where the pads will be positioned.
11. The student buckles the belt, then firmly tightens by pulling the loop handle while stabilizing the belt with the other hand on top of the belt on the patient (remove ALL slack).
12. The student reassesses the pad placement to ensure that the pads are still in the correct location below the inguinal ligament.
13. With one hand on the base plate, the student grips the threaded T-handle and rotates it clockwise to tighten. For this practical exercise, stop when the pressure pads are firmly in contact with the patient.
14. The student increases pressure until bright red bleeding stops (hemostasis is achieved) and, if the extremity is intact, checks to confirm that distal pulses have been occluded. For this practical exercise, the student will only verbalize this step.
15. The student inserts the toggle into the opening on the threaded T-handle (pulling the handle in clockwise rotation) and cinches it tight at the base plate to secure the device.
16. The student repeats with the other threaded T-handle for bilateral injuries.
17. The student documents the time of application.
18. The student assesses the patient frequently (every 5 minutes and after any movement) to ensure that bleeding is still controlled (or based on local medical protocols).
 - a. The student assesses the patient after any movement to ensure that pressure pads are in correct location and that pressure was not reduced during movement.**

**Junctional Emergency Treatment Tool instructions from manufacturer guidelines: <https://rmf.ims.allogy.com/pf.tlx/6Q6vd6v5puJp>

Axillary Hemorrhage

1. The student applies the junctional tourniquet to the patient under the arms, as high as possible.
2. The student places the D-ring on the injured side, aligning it with the side of the neck. The student connects the buckle and secures the strap in place by pulling the brown handles apart until a click is heard. The student maintains tension and secures the loose end of the strap by pressing down on the Velcro strap.
3. The student attaches the extender to the TCD prior to application and attaches the TCD to the strap by pressing it onto the brown Velcro strap. The extender allows for more direct pressure on the artery.
4. The student attaches the large clip on the strap to the D-ring on the front of the SJT.
5. The student connects the accessory strap to the cord on the back of the SJT using the small clip, as close as possible to the patient's midline.
6. The student tightens the strap as much as possible using the brown handle. The student uses the pump handle to inflate the TCD until hemorrhage stops. In this exercise, the student will verbalize both inflating the TCD and checking for hemorrhage control.
7. The student verbalizes monitoring the patient continuously during transport for hemorrhage control and adjusting the device as necessary.*

Critical Criteria

- The student did not correctly position the junctional tourniquet.
- The student did not verbalize or apply sufficient pressure to stop distal bleeding.

*SAM junctional tourniquet instructions from: https://www.sammedical.com/assets/uploads/sjt-instructional-poster_2017-04-10.pdf