

SAM[®] Junctional Tourniquet (SJT) Training



Force Multiplication With One Device

- Recent studies indicate
 - Junctional hemorrhage accounts for up to 20% of preventable deaths in combat. Immediate, effective treatment is necessary for patient survival.*
 - 24% of patients with traumatic lower limb amputations from IEDs had associated pelvic fractures**

**Death on the battlefield (2001-2011): Implications for the future of combat casualty care. J Trauma Acute Care Surgery. Eastridge et al. Volume 73, Number 6, Supplement 5*

***British Editorial Society of Bone & Joint Surgery (2010): Lower Limb Traumatic Amputations - The importance of pelvic binding for associated pelvic fractures in blast injury. Cross et.al .J Bone Joint Surg Br 2012 vol. 94-B no. SUPP XXI 4*

Training Overview

- SJT Key Elements
- Components of the SJT
- Instructions for Use
- Considerations

SJT Key Elements

- Multiple Indications
 - Pelvic Immobilization
 - Control Inguinal Hemorrhage
 - Control Axilla Hemorrhage
- < 25 second application time
- Lightweight (1 lb., 1 oz.) (488 g)
- Easy to use, 4 step application
- FDA 510(k) cleared and CE marked
- Step by step instructions printed directly on the device

Components of the SJT

- The SJT is comprised of four basic parts
 1. Pelvic Belt
 2. Hand Pump
 3. (2) Target Compression Devices (TCD) SJT 102
 4. Auxiliary Strap and TCD Extender



Pelvic Belt

- Modified SAM Sling
- Clinically proven to provide the prescribed safe and effective force for pelvic stabilization
- Patented buckle design maintains correct base force to eliminate slack. “Click” provides clear feedback to confirm when to secure Velcro for correct application.



Hand Pump

- Removable Hand Pump quickly inflates the Target Compression Device (TCD) to achieve hemorrhage control
- Operates much like a blood pressure bulb and is made of PVC



Target Compression Device (TCD)

- Inflates to 3.2" high
- Body of TCD is made of Texin – material also used in protective eyewear, golf ball and whitewater raft protective coating products
- Base of TCD is Makrolon polycarbonate material, which is also used in bullet-proof glass and combat helmet products
- Body and base are welded, not glued

Deflated: Low profile, low cube, stores flat.



Partially inflated: The average pressure to occlude a femoral artery in mannequin and cadaver model testing.



Fully extended: ~3 seconds to full inflation and maximum compression.



AUXILIARY STRAP SUPPORT & TCD EXTENDER

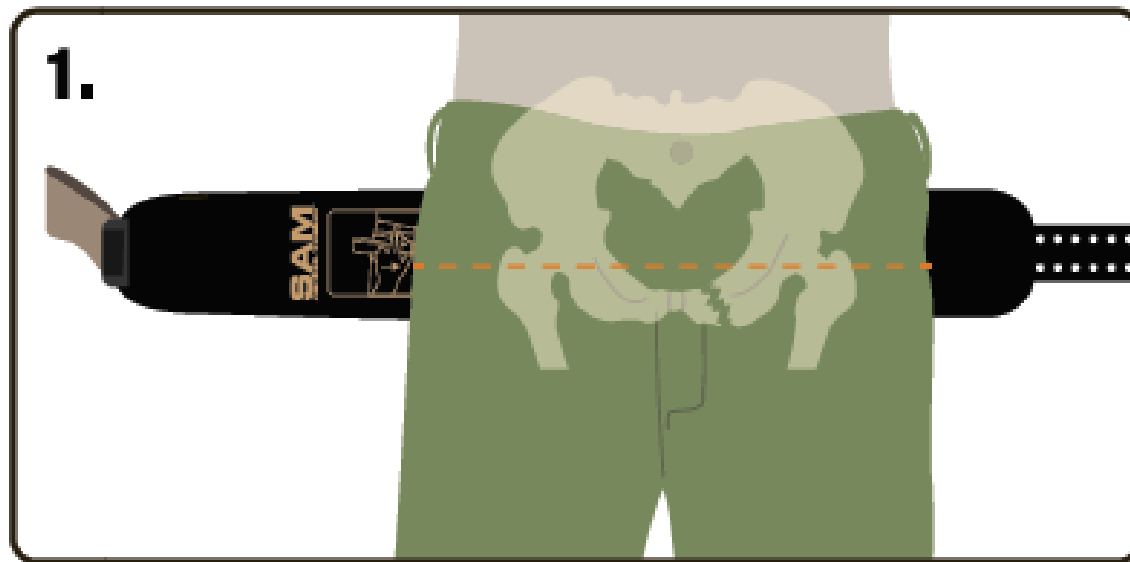
- Auxiliary Strap Support - 35" x 2" adjustable Nylon Strap with clips on each end utilized to apply the SJT in a harness-style application
- TCD Extender – Attached via lanyard to TCD, used to change the shape of the TCD prior to inflation



Multiple Indications

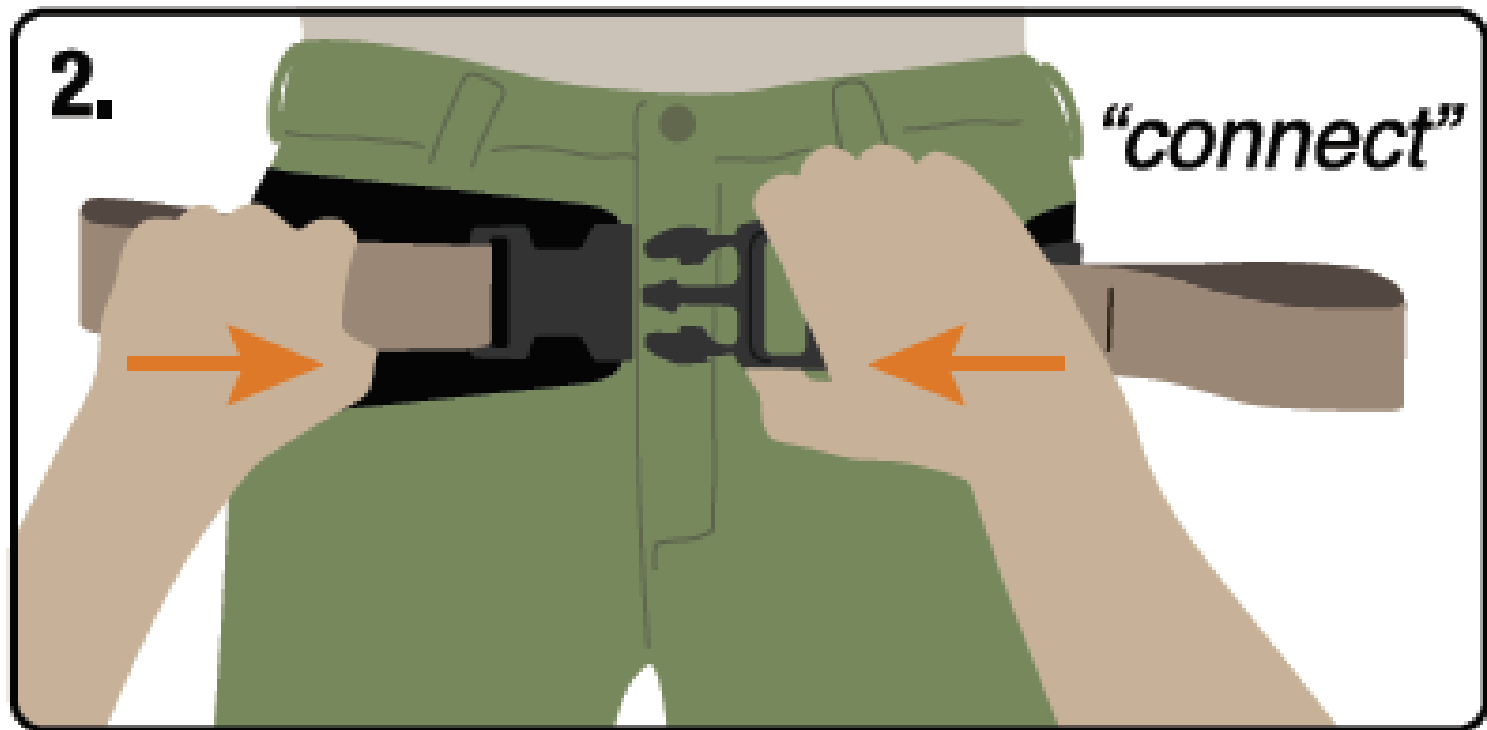
1. Pelvic Stabilization
2. Control Inguinal Hemorrhage
3. Control Axilla Hemorrhage

To Immobilize Pelvic Fractures



Remove objects from patient's pockets or pelvic area. Slide the belt without the TCD underneath the patient at level of the trochanters (hips).

To Immobilize Pelvic Fractures



Connect the belt using the buckle.

To Immobilize Pelvic Fractures

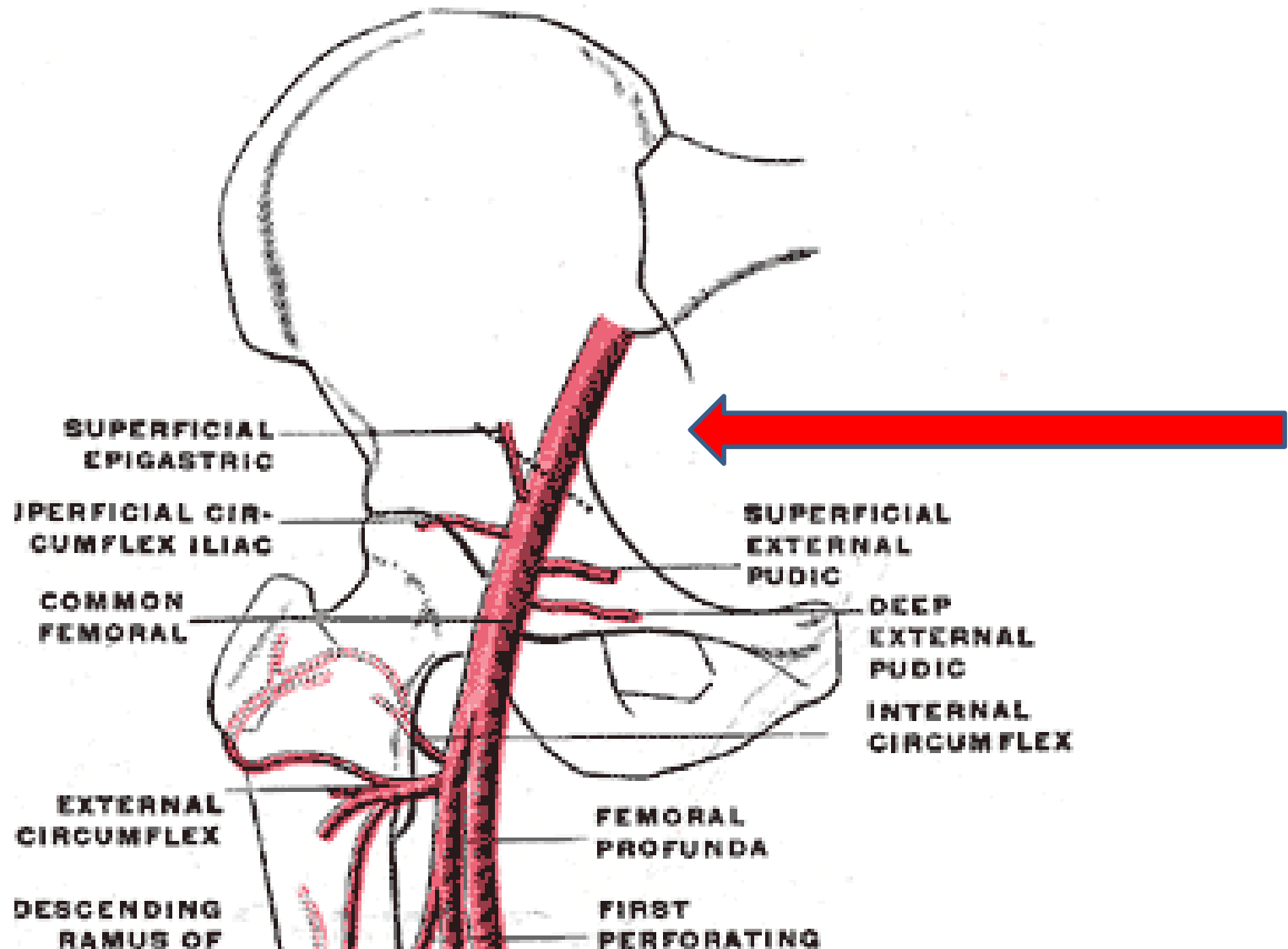


Pull the **BROWN HANDLES** away from each other until the buckle secures. You will hear an audible click. Fasten excess belt in place by pressing it down on the Velcro. You may hear a second click once the belt is secure. In case of prolonged use, monitor patient's skin. **TO REMOVE**, unbuckle the belt.



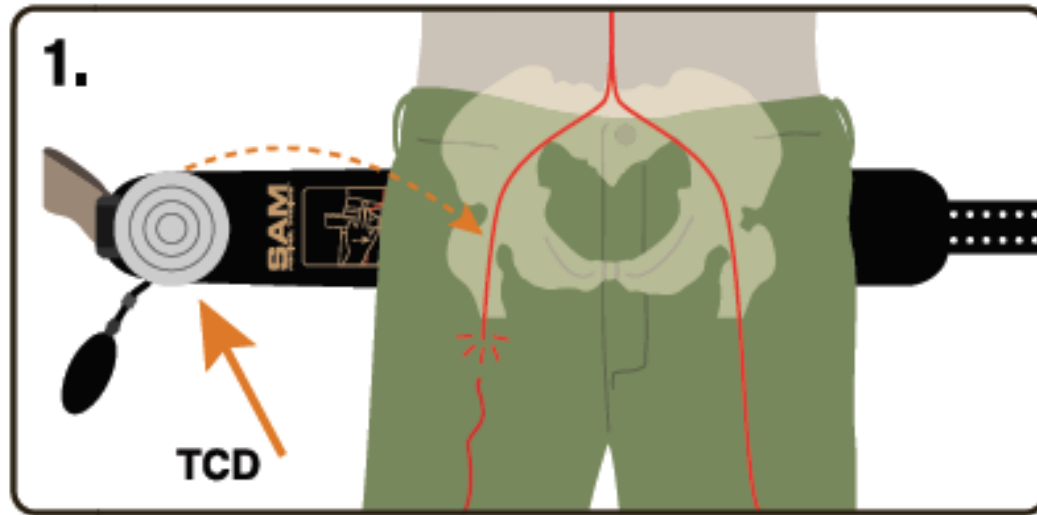
Inguinal Hemorrhage

Occlude Femoral Artery



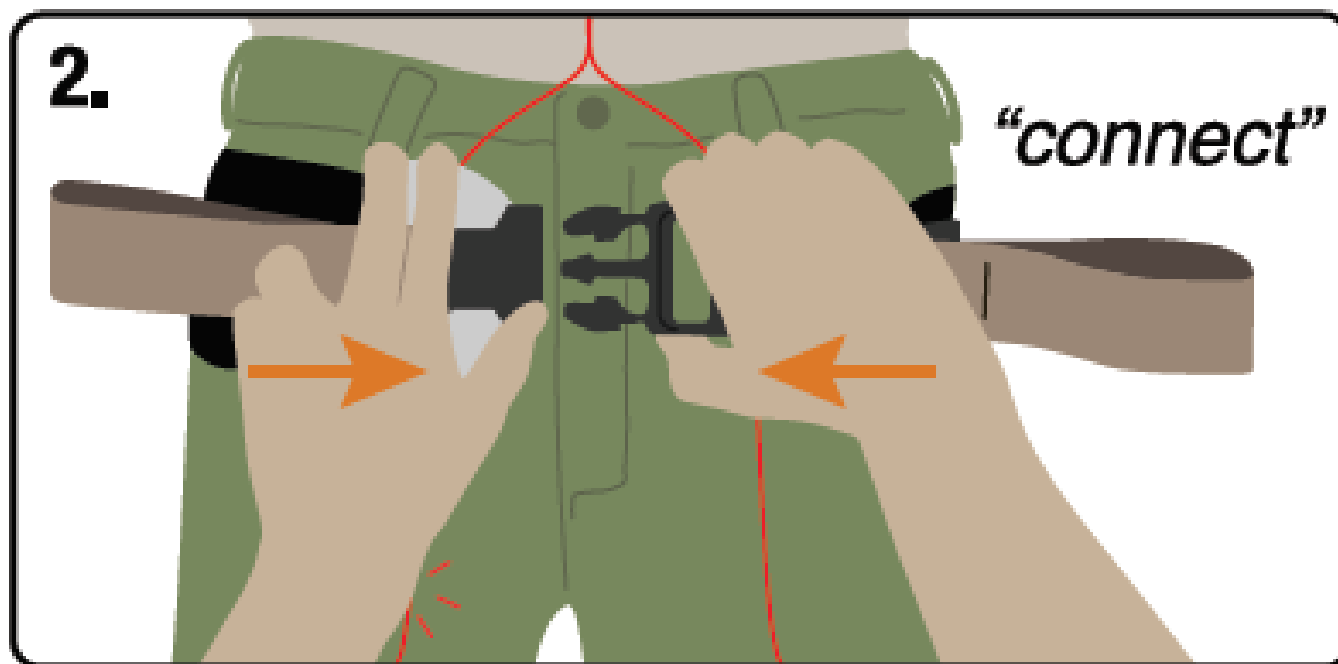
To Control Inguinal Hemorrhage

Note: The belt may attach on the left or right of the patient, depending on the location of the injury.



Slide the belt underneath the patient, positioning the Target Compression Device (TCD) over the area to be compressed. Use sterile gauze or hemostatic dressing if targeting directly over a wound. **For bi-lateral application, use a second TCD.**

To Control Inguinal Hemorrhage



Hold the TCD in place and connect the belt using the buckle.

To Control Inguinal Hemorrhage



Pull the **BROWN HANDLES** away from each other until the buckle secures. You will hear an audible click. Fasten excess belt in place by pressing it down on the Velcro. You may hear a second click once the belt is secure.

To Control Inguinal Hemorrhage



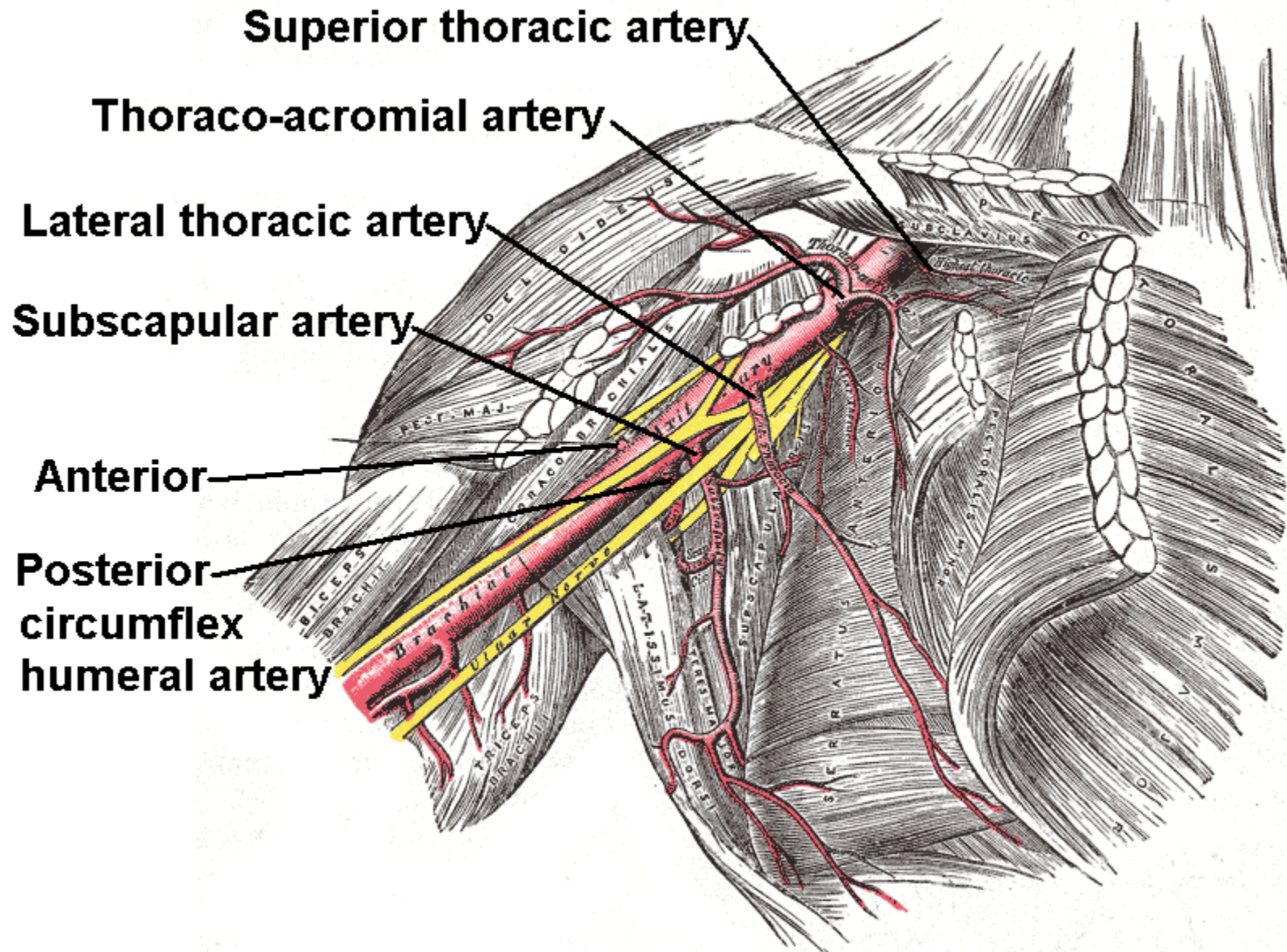
Use the hand pump to inflate the TCD until hemorrhage stops. Monitor patient during transport for hemorrhage control and adjust the device if necessary.

TO REMOVE, unbuckle the belt.

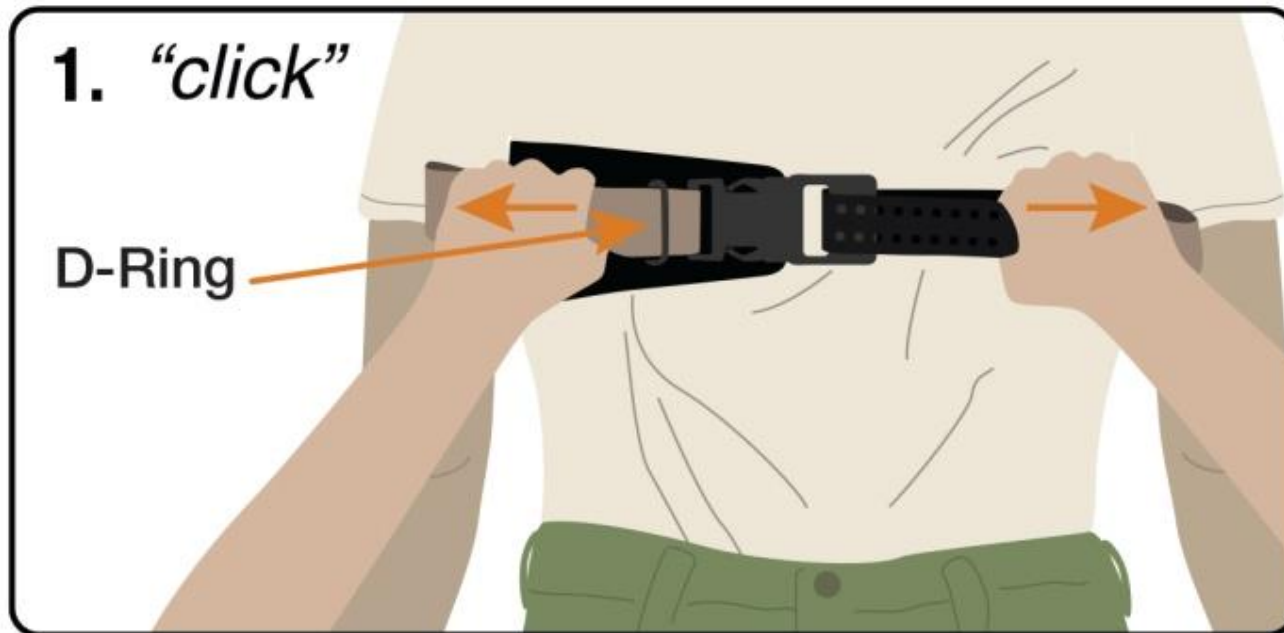


Axilla Hemorrhage

Axilla Artery



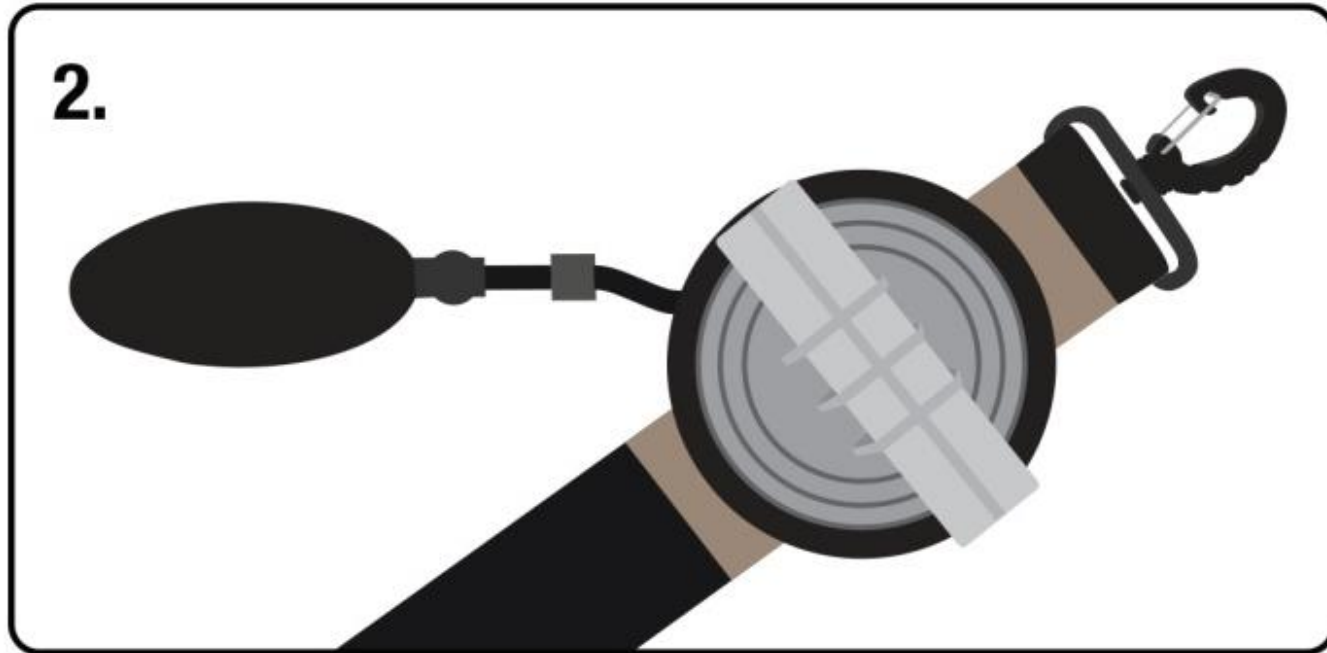
To Control Axilla Hemorrhage



Apply the SJT to the patient under the arms, as high as possible. Place the D-ring on the injured side, aligning it with the side of the neck. Connect the buckle and secure the strap in place by pulling the **BROWN HANDLES** apart until you hear it click.

Maintain tension and secure the strap by pressing it down on the Velcro.

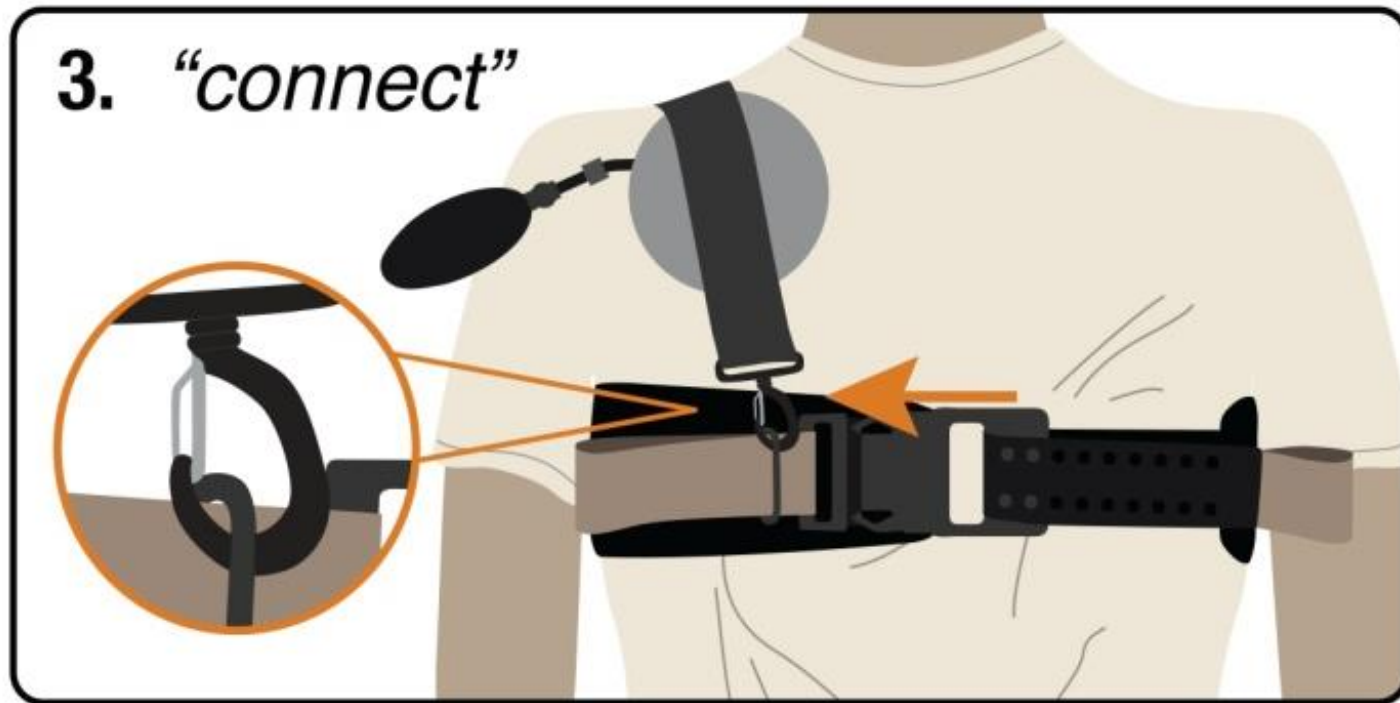
To Control Axilla Hemorrhage



Attach the Extender to the TCD prior to application and place on the strap on the brown velcro.

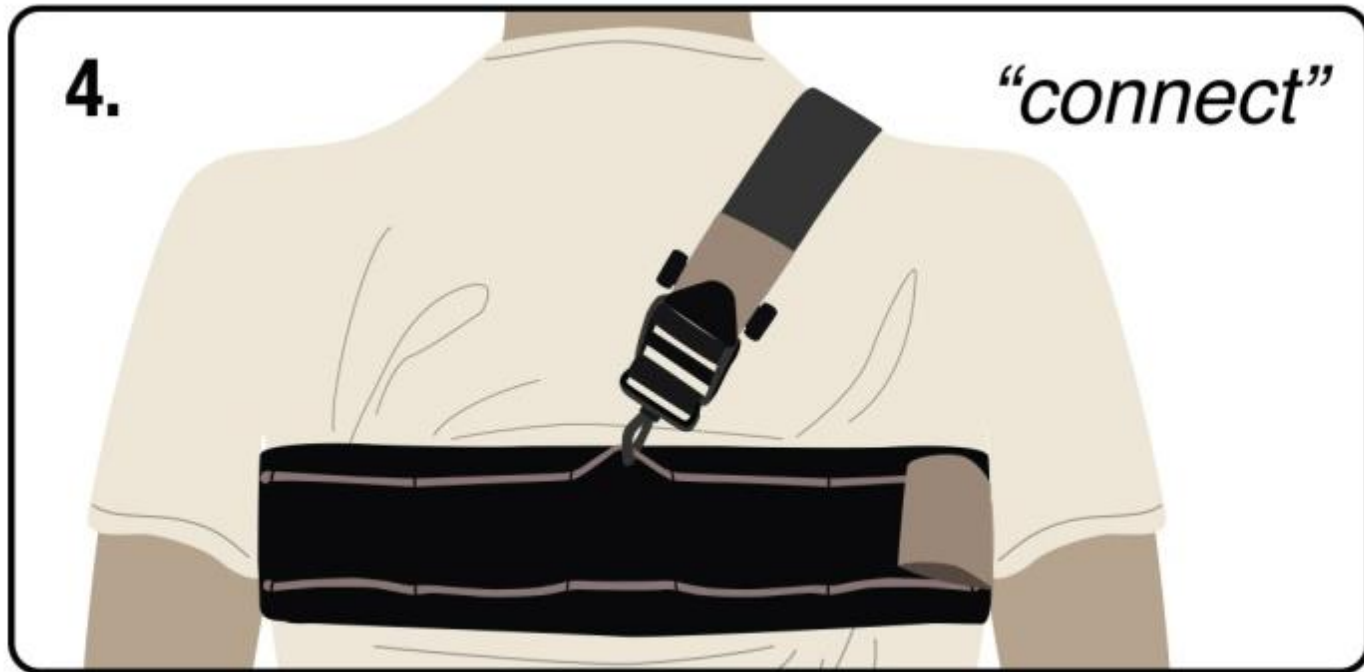
The Extender allows for more direct pressure on the artery.

To Control Axilla Hemorrhage



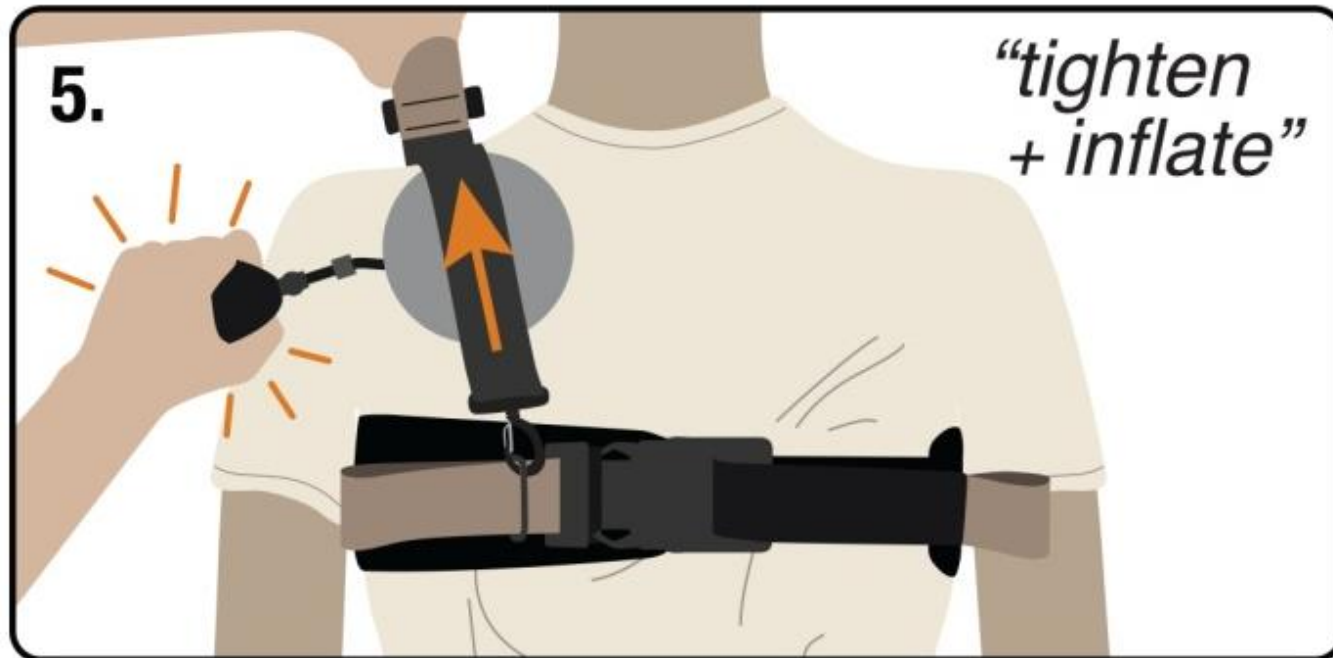
Connect the strap using the large clip to the D-ring on the front of the SJT.

To Control Axilla Hemorrhage



Connect the accessory strap to the cord on the back of the SJT using the small clip, as close as possible to the patient's mid-line.

To Control Axilla Hemorrhage



Tighten the strap as much as possible using the **BROWN HANDLE**.

Use the hand pump to inflate the TCD until hemorrhage stops. Monitor patient during transport for hemorrhage control and adjust the device if necessary.

TO REMOVE, unbuckle the belt.

Considerations

- The SAM[®] Junctional Tourniquet is intended to be left on for up to four hours
- Remove only at a Definitive Care Facility
- Additional inflation of the TCD may be necessary with changes in altitude



Specifications

- NSN 6515 01 618 7475
- Pricing for DOD: \$292.50
- Available through Cardinal and is on Bound Tree's DAPA <http://www.boundtreefed.com/>



[Link to Online Video](#)