

From the makers of the **SAM** Splint


 **MADE IN THE USA**

# **SAM**<sup>®</sup> Junctional Tourniquet

**FOR HEMORRHAGE CONTROL & PELVIC IMMOBILIZATION**



**SAM**<sup>®</sup>  
MEDICAL

 NSN# 6515-01-618-7475 PATENTS PENDING

[sammedical.com](http://sammedical.com)

## DESIGN

For Hemorrhage Control, the Leading Preventable Cause Of Death In Combat Situations



## SAM<sup>®</sup> JUNCTIONAL TOURNIQUET

Recent studies indicate that junctional hemorrhage accounts for up to 20% of preventable deaths in combat. Immediate, effective treatment is necessary for patient survival.<sup>1</sup> Studies show that 2% of all battlefield injuries and 15.1% of all torso injuries have an associated pelvic fracture.<sup>2</sup>

### FUNCTIONAL DESIGN

The SAM<sup>®</sup> Junctional Tourniquet (SJT) for hemorrhage control is designed to control bleeding in areas where standard tourniquets would not be effective, such as with IED/Blast injuries or high level amputations.

The SJT can be used to control hemorrhage in the inguinal or axilla areas. With these types of injuries, time is of the essence.

The SAM<sup>®</sup> Junctional Tourniquet is compact, easy to use, and quick to apply (typically under 25 seconds). The Target Compression Device (TCD) is placed at or proximal to the injury site and inflated until the bleeding stops. Two TCDs can be used to occlude blood flow bi-laterally if needed.

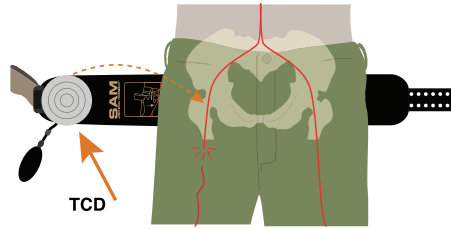
The rugged design ensures that the device stays securely attached to the patient during transport. Designed to exceed MIL-STD-810g requirements.

In addition, the SAM<sup>®</sup> Junctional Tourniquet stabilizes pelvic fractures. Recent studies indicate that IED-type hemorrhage injuries often have associated pelvic fractures.<sup>3</sup>

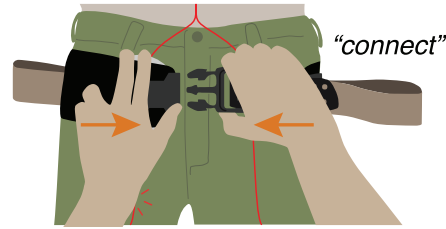
The patented SAM<sup>®</sup> Auto-Stop Buckle provides the clinically correct force every time, taking the guesswork out of tightening.<sup>4</sup> This is vital in high stress environments where over-tightening or under-tightening could potentially be harmful.

# APPLICATION

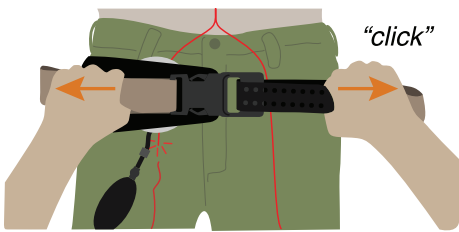
## INGUINAL HEMORRHAGE CONTROL



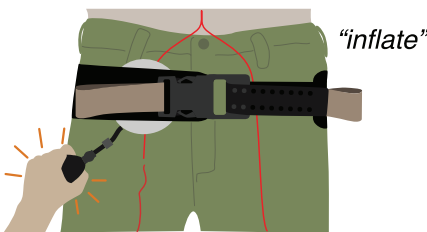
**01** Slide the belt underneath the patient, positioning the Target Compression Device (TCD) over the area to be compressed. Use sterile gauze or hemostatic dressing if targeting directly over a wound. For bi-lateral application, use a second TCD.



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



**03** 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.



**04** 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.

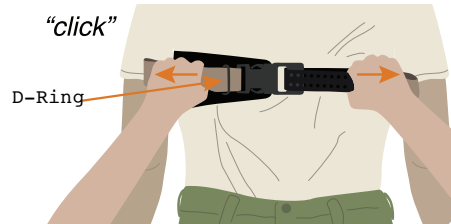
### FEATURES

Multiple Indications

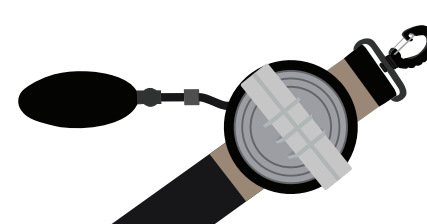
- Inguinal hemorrhage
- Axilla hemorrhage
- Pelvic immobilization

- < 25 second application time
- Lightweight (1 lb., 1 oz.) (488g)
- Easy to use, 4 step application
- CE Marked
- Training video available at [www.sammedical.com](http://www.sammedical.com)

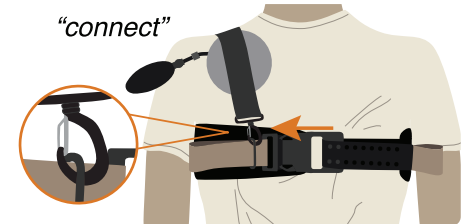
## AXILLARY HEMORRHAGE CONTROL APPLICATION INSTRUCTIONS



**01** 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.



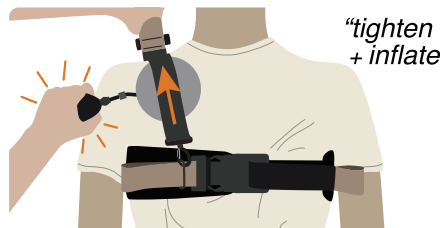
**02** Attach the Extender to the TCD prior to application and place on the strap on the brown velcro.



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



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



**05** 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.

**ALSO IMMOBILIZES PELVIC FRACTURES**

**WARNING:** The SAM® Junctional Tourniquet is intended to be left on for up to four hours. Remove only at a Definitive Care Facility. Additional hand pumps may be necessary with changes in altitude.

**FAQ'S**

**WHAT IF THE PATIENT HAS BI-LATERAL NON-TOURNIQUETABLE INJURIES?**

The SAM® Junctional Tourniquet can be applied with two TCD's (Targeted Compression Devices) to stop the flow of bleeding bi-laterally. Place the TCDs over the affected areas to occlude blood flow and inflate them individually until the bleeding stops.

**WHY DOES THE SAM JUNCTIONAL TOURNIQUET USE PNEUMATIC DEVICES?**

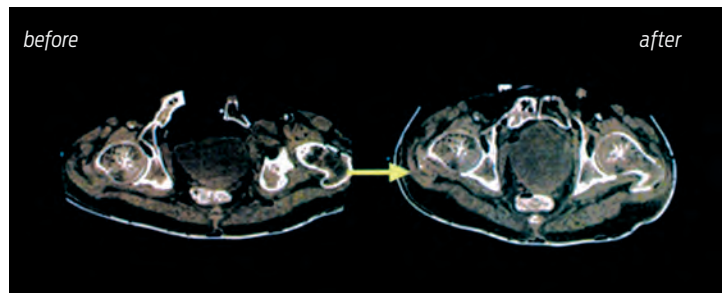
At SAM, we examined the strengths and weakness of both mechanical and pneumatic approaches to hemorrhage control. The SAM® Junctional Tourniquet incorporates the best of both, with a strong mechanical buckle component based on our successful pelvic sling. This buckle controls baseline pressure and eliminates slack. The pneumatic Target Compression Device (TCD) inflates quickly to minimize the loss of blood from the patient. The TCD has a built-in pressure release valve to prevent overinflation at altitude.

**WHAT IS THE DIFFERENCE BETWEEN THE SAM JUNCTIONAL TOURNIQUET AND OTHER DEVICES USED FOR PELVIC FRACTURE IMMOBILIZATION?**

The SAM® Junctional Tourniquet is designed to prevent under-tightening. It is the only pelvic binder that will ensure the compression force required to safely and effectively stabilize pelvic ring fractures.

**RESEARCH STUDIES**

1. Eastridge BJ, Mabry RL, Seguin P, Cantrell J, Tops T, Uribe P, Mallett O, Zubko T, Oetjen- Gerdes L, Rasmussen TE, Butler FK, Kotwal RS, Holcomb JB, Wade C, Champion H, Lawnick M, Moores L, Blackburne LH. *Death on the battle- field (2001-2011): Implications for the future of combat casualty care. J Trauma Acute Care Surg. 2012 Dec; 73(6 Suppl 5):S431-7.*
2. Stannard A, Morrison JJ, Scott DJ, Ivatury RA, Ross JD, Rasmussen TE. *The epidemiology of noncompressible torso hemorrhage in the wars in Iraq and Afghanistan. J Trauma Acute Care Surg. 2013 Mar; 74(3):830-4.*
3. Davis JM, Stinner DJ, Bailey JR, Aden JK, Hsu JR. *Skeletal Trauma Research Consortium. Factors associated with mortality in combat- related pelvic fractures. J Am Acad Orthop Surg. 2012; 20 Suppl 1:S7-12.*
4. James C. Krieg, MD, Marcus Mohr, MS, Thomas J. Ellis, MD, Tamara S. Simpson, MD, Steven M. Madey, MD, and Michael Bottlang, PhD. *Emergent Stabilization of Pelvic Ring Injuries by Controlled Circumferential Compression: A Clinical Trial Journal of Trauma. 59:659-664, 2005.*



| PART No | DESCRIPTION                           |
|---------|---------------------------------------|
| SJT 102 | SJT, 2 TCD, Ext, Hand Pump, Aux Strap |
| SJT 101 | SJT, 1 TCD, Hand Pump                 |
| SJT 100 | Pelvic Sling                          |

**Patent List for the SAM® Pelvic Sling II**

- Brevet No. (FR) 1487317
- Deutsches Bundespatent (DE) 1487317
- Patentes marcado (ES) 1487317
- Patent No. (UK) 1487317
- U.S. Patent No. 6,554,784
- U.S. Patent No. 8,192,383
- U.S. Patent No. 7,008,389

From the makers of the SAM® Splint, SAM® Pelvic Sling II, SAM® Junctional Tourniquet, SAM® Soft Shell Splint, SAM® Chest Seal, ChitoSAM™ and Blist-O-Bar®. Headquartered in Wilsonville, OR, our products are distributed globally in over 60 countries.



“We exist to measurably improve pre-hospital patient care through innovative solutions to the toughest challenges in the field”

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