

# Skills Retention of SWAT Operators Applying the Abdominal Aortic and Junctional Tourniquet

James G Vretis, DO  
Medical Director  
Center for Tactical Medicine



c4tm.us



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Nothing I say is official policy

I have no conflicts of interest

I am very interested in conflict

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Noncompressible truncal  
hemorrhage is associated with an  
increased mortality that is  
unchanged in the last 20 years

<https://www.jtrauma.org/Fulltext/2012/08/08v20120808v01>

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Abdominal Aortic and Junctional  
Tourniquet  
"AAJT"

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It's not CoTCCC recommended  
So why bother with it?

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CoTCCC Recommended  
Junctional Tourniquets  
Combat Ready Clamp  
SAM Junctional Tourniquet  
Junctional Emergency Treatment  
Tool

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## Abdominal Aortic and Junctional Tourniquet

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It's not as sexy as REBOA  
So why bother with it?

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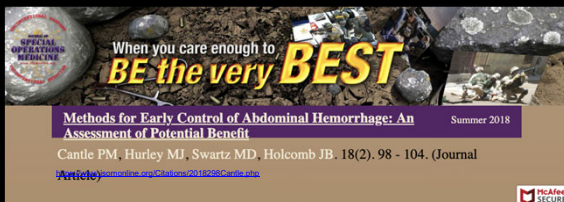
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REBOA was potentially beneficial for hemorrhage control in 384 (96%) of patients, foam in 351 (87%), and AAJT in 35 (9%).

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J.Surg.Res. 2018 Jun;226:31-39. doi: 10.1016/j.jss.2017.12.039. Epub 2018 Feb 10.

**Comparison of zone 3 Resuscitative Endovascular Balloon Occlusion of the Aorta and the Abdominal Aortic and Junctional Tourniquet in a model of junctional hemorrhage in swine.**

Rall JM<sup>1</sup>, Redman TT<sup>2</sup>, Ross EM<sup>2</sup>, Morrison JJ<sup>3</sup>, Maddy JK<sup>4</sup>.

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Both techniques achieved 100% hemostasis

AAJT group had a higher mean arterial pressure

AAJT group had higher lactate levels

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Ann.Surg. 2011 Jun;253(6):1184-9. doi: 10.1097/SLA.0b013e31820752e3.

**The epidemiology of vascular injury in the wars in Iraq and Afghanistan.**

White JM<sup>1</sup>, Stannard A, Burkhart GE, Eastridge BJ, Blackbourne LH, Rasmussen TE.

The femoral artery was the most common artery injured in the proximal extremities (n = 268; 17%)

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Texas Ranger SRT4

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92% of our work

Single family house

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92% of our work

Less than 12 minutes by ground  
to Trauma Center

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92% of our work

No staged EMS backup

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**Multiple cops shot in Houston during 'encounter' with suspect**  
By Chris Perez January 28, 2019 | 7:38pm | Updated

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**Texas Ranger SRT4 Medical**

Physician  
EMT-A  
ECA  
and all the other guys...

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**Texas Ranger SRT4 all  
Operators**

Tourniquet application  
Chest seals  
Needle decompression  
NPA  
Saline lock  
AAJT

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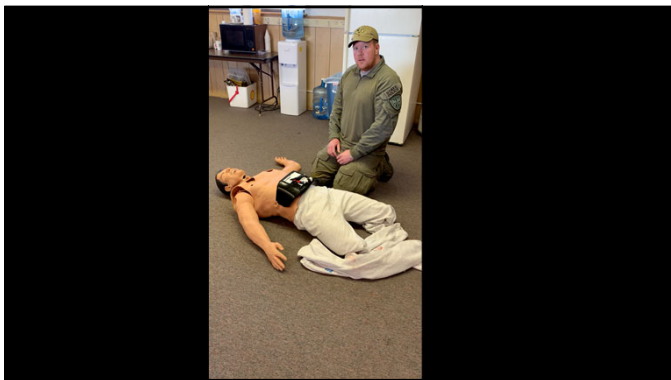
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Criteria for Proper Application  
Centered on umbilicus  
Belt tightened  
Windless tightened  
Inflated to green (20 pumps)

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| Criteria                   | Initial training<br>n=82 | 18 months<br>n=38 | 36 months<br>n=18 |
|----------------------------|--------------------------|-------------------|-------------------|
| Centered on umbilicus      | 82 (100%)                | 30 (79%)          | 13 (72%)          |
| Belt tightened             | 82 (100%)                | 38 (100%)         | 15 (83%)          |
| Windless tightened         | 82 (100%)                | 30 (79%)          | 12 (67%)          |
| Proper inflation           | 82 (100%)                | 38 (100%)         | 18 (100%)         |
| Time for application (sec) | 47                       | 53                | 61                |

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## Conclusions

SWAT operators can be trained in AAJT application  
AAJT training is perishable

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## Limitations

Tested on manikins  
Tested to 20 pumps  
Only tested abdominal placement

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Questions?

James Vretis, DO  
830.431.1467  
jvretis@c4tm.us

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