



# EMS System for Metropolitan Oklahoma City and Tulsa 2024 Medical Control Board Treatment Protocols

Approved 11/08/23, Effective 1/15/24, replaces all prior versions



 EMS SECTION

## 10H – TOURNIQUET ADULT & PEDIATRIC

EMERGENCY MEDICAL RESPONDER
EMT
EMT-INTERMEDIATE 85
ADVANCED EMT
PARAMEDIC

**Indication:** Life-threatening extremity hemorrhage unable to be controlled by direct pressure or immediately obvious that direct pressure alone will not provide control.

**Contraindication:** None

**Technique (Combat-Application-Tourniquet® - C-A-T®):**

The C-A-T® (Figure 1) windlass uses a free moving internal band to provide circumferential pressure to an injured and uncontrollably bleeding extremity. Once placed, keep the tourniquet secure, but uncovered so that the bleeding site can be clearly monitored as well as the tourniquet itself. The time of tourniquet application (Figure 6, e.g. TK 0145) is to be written on a piece of adhesive tape and secured to the tourniquet. Conscious patients may experience pain related to tourniquet use. In such instances, follow the pain management protocol if the patient is hemodynamically stable.

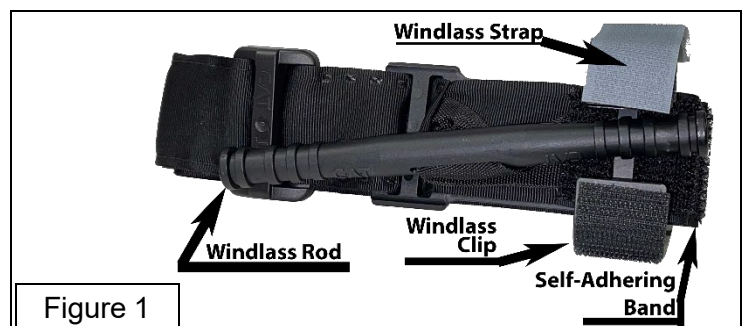


Figure 1

**Step 1 (Figure 2):**

The C-A-T® is applied over the extremity proximal to the bleeding site routing the self – adhering band around the extremity. Feed the strap through the buckle.





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## PROTOCOL 10H: Tourniquet, Adult & Pediatric, cont.

### Step 3 (Figure 3 & 4):

Pull the self - adhering band, through the buckle, tight and secure the band back on itself with the Velcro adhesive strap.



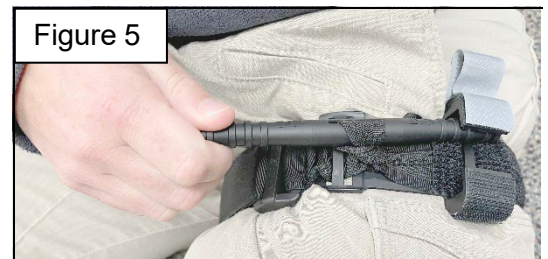
### Step 4 (Figure 4):

Twist the windlass until the bleeding has stopped. This will typically be at or less than 3 complete rotations of the windlass.



### Step 5 (Figure 5):

Lock the rod in place with the windlass clip.



### Step 6 (Figure 6):

Secure the rod with the strap by pulling it tight and adhering it to the opposite hook on the windlass hook. Indicate the time of tourniquet application on tape.





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### PROTOCOL 10H: Tourniquet, Adult & Pediatric, cont.

Using Generation 7 C-A-T® tourniquets, all applications are made passing the self-adhering band through the single slit of the buckle.

If one tourniquet correctly applied does not completely control hemorrhage, in addition to direct pressure, an additional tourniquet may be applied just proximal to the first tourniquet.

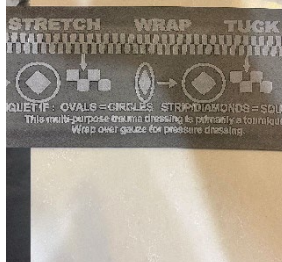
Once bleeding has been controlled by a tourniquet, the usual and customary practice is to leave the tourniquet in place throughout the remainder of scene care and transport to an emergency department. In infrequent circumstances, if pain control becomes an issue, the tourniquet may be loosened to see if bleeding will stay controlled. If bleeding resumes, promptly re-tighten the tourniquet to its effective tightness.

#### Technique SWAT-T™

The SWAT-T™ (Figure 1) provides circumferential pressure to an injured and uncontrollably bleeding extremity. The SWAT-T™ can be used on children or adults with smaller extremities where the C-A-T® is too large to control the hemorrhage. Once placed, keep the SWAT-T™ secure, but uncovered so that the bleeding site can be clearly monitored as well as the SWAT-T™ itself. The time of application is to be written on a piece of adhesive tape and secured to the SWAT-T™. Conscious patients may experience pain related to tourniquet use. In such instances, follow the pain management protocol if the patient is hemodynamically stable. (Stretch-Wrap-Tuck)



Figure 1



#### Step 1 (Figure 2):

Wrap tightly while pulling tension (**Stretch**) on the SWAT-T™



Figure 2

#### Step 2 (Figure 3):

Continue to **Wrap** while pulling tension on the SWAT-T™



Figure 3

#### Step 3 (Figure 4):

After SWAT-T™ is tight & bleeding is controlled **Tuck** the SWAT-T™ up into itself making it secure.



Figure 4