



Jackson Hole Fire/EMS Operations Manual

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Title: **Procedure Guidelines:
Tourniquet**

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TOURNIQUET (Procedure Guidelines)

All EMRs, EMTs, EMT-Is, and Paramedics shall operate within their authorized Scope of Practice as limited to those skills and medications approved for us by the Physician Medical Director and Physician Task Force on Pre-Hospital Care as approved and authorized by the Wyoming Board of Medicine

SCOPE OF PRACTICE: Standing order for EMR, EMT, EMT-I, and Paramedic

INDICATIONS:

- Massive life threatening bleeding to any extremity
 - Bleeding that cannot be controlled by direct pressure
 - Bright red pulsating, squirting, or steady bleeding
 - Traumatic amputation of an arm or leg
- Austere situations including but not limited to Tactical, Technical Rescue, or MCI where extremity bleeding is occurring, and limited resources or ability to apply direct pressure for initial bleeding control.

CONTRAINDICATIONS:

- Extremity bleeding that can be controlled by other means, i.e. direct pressure.
- Tourniquet application is a life-preserving measure, and thus has no true contraindications.

GENERAL PROCEDURE FOR TQ APPLICATION:

NOTE: Consider body substance isolation

NOTE: Recommended Limb Tourniquet for Jackson Hole Fire/EMS is current generation of the Combat Application Tourniquet (CAT)

1. **EXPOSE** the injury and **ASSESS** the bleeding source

2. **INSERT** wounded extremity through the loop of band or **ROUTE** band around limb, and through routing buckle.
3. **POSITION** 2-3 inches above wound directly on skin.
4. Pull self-adhering band as **TIGHTLY** as possible.
5. **FASTEN** it back on itself all the way around the limb.
6. **TWIST** the windlass rod until bleeding stops.
 - a. If distal pulse is present, the TQ is not tight enough.
7. **LOCK** the windlass rod in place with the windlass clip.
8. **ROUTE** self-adhering band around the rod and between the clips.
9. **SECURE** with the windlass safety strap.
10. **ANNOTATE** time of application either on TQ or conspicuous place (i.e. pts forehead).

Special Considerations for TQ Application

1. In the Austere environment if needed apply TQ "High and Tight" on the wounded extremity or when the bleeding source is uncertain.

GENERAL PRODCEDURE FOR TQ REASSEMENT:

1. If TQ was previously applied by LE, Good Smartian, First Responder, or in an Austere environment "High and Tight" it should be reassessed.
2. Assess for effectiveness (bleeding has stopped and distal pulses are absent)
3. Apply direct pressure if needed to control bleeding
4. Place a second tourniquet either 2-3 inches above wound directly on skin, or side by side with the first if initial placement was correct.

(Note: a severe bleeding wound to the thigh frequently requires a Second TQ, and may need to be moved more proximal)

GENERAL PRODCEDURE FOR TQ CONVESRSION:

Every effort should be made to convert tourniquets in less than 2 hours if bleeding can be controlled by other means

Scope of Practice: EMT (with medical control contact) , EMT-Is and Paramedics (standing order).

Contraindications:

- Shock
- Amputation
- Inability to closely monitor for rebleeding
- TQ has been in place for more than 6 hours
- Tactical or medical considerations make transition inadvisable

General Procedure for TQ Conversion:

1. Pack wound with gauze (hemostatic if available, or regular gauze if needed) and hold pressure for until bleeding can be controlled.
2. Apply pressure bandage over the dressing
3. Slowly release TQ over 1 minute, ensuring no rebleeding occurs, and continue to reassess
 - a. If uncontrolled bleeding occurs retighten TQ and leave in place until definitive care can be reached
4. If conversion is successful loosen the TQ and move it down to just above the pressure dressing, in case it is needed later.
5. Document all findings and treatment and times

References:

1. *Tourniquets in TCCC Guidelines. Joint Trauma Systems.* The Committee on Tactical Combat Casualty Care (CoTCCC). DEC 2021