

Tourniquet Placement – 30.205

DEFINITION:

Placement of a circumferential band around a limb in order to occlude arterial blood flow distal to the band.

INDICATIONS:

Extremity hemorrhage that is uncontrollable by less aggressive means (direct pressure, bandaging, or pressure dressing) OR a wound that could cause life threatening extremity hemorrhage during an ongoing tactical problem (e.g. potential building collapse, mass casualty event, amputation).

PROCEDURE:

- A. Fully expose and evaluate the wound.
- B. Apply tourniquet directly to the skin, 2 to 3 inches proximal to the most proximal limb wound, not over a joint.
- C. Tighten until all bleeding stops and no distal pulse is palpable.
- D. Secure the windlass per manufacturer instructions.
- E. If one properly placed tourniquet does not control bleeding, a second should be placed proximal to the first and tightened appropriately.
- F. Endeavor to keep all tourniquets exposed.
- G. Mark with time of application and communicate this to receiving providers.
- H. Re-evaluate tourniquets frequently to ensure they have not loosened.

NOTES & PRECAUTIONS:

- A. If an improvised tourniquet is present before medical provider arrival, place a commercial tourniquet per protocol and remove the improvised tourniquet if operationally feasible.
- B. Properly applied tourniquets will rarely damage tissue if removed within two hours.
- C. If unable to fully expose a limb and identify all wounds on that limb place the tourniquet as high on the limb as possible. Once all wounds on that limb can be identified, every effort should be made to move the tourniquet to 2 to 3 inches proximal to the most proximal wounds, and not on a joint.
- D. Intermittently loosening and tightening a tourniquet to “reperfuse” a limb is of no benefit and dangerous as it encourages additional bleeding.
- E. A single commercially available tourniquet completely occludes femoral artery blood flow about 70% of the time. Two tourniquets, placed side by side completely occlude about 80% of the time.
- F. The ability of the tourniquet to completely occlude arterial flow is dependent on limb circumference. Larger limbs are more difficult to occlude.
- G. A persistent pulse, continued venous congestion / distention, re-bleeding after initial hemorrhage control, and expanding hematoma are all indications of an ineffective tourniquet.
- H. Clothing, padding under the tourniquet, and limb movement all cause tourniquets to loosen over time and should be avoided.
- I. Tourniquets can cause significant pain and may require narcotics for pain control.
- J. Proper placement of a CAT tourniquet on a lower extremity requires threading the circumferential band of the buckle.
- K. Proper placement of the SOFTT tourniquet requires tightening the knurled screw on the buckle before tightening the windlass.