



COMBAT LIFESAVER
TACTICAL COMBAT CASUALTY CARE

MODULE 06:
MASSIVE
HEMORRHAGE
CONTROL IN TFC
SKILL INSTRUCTIONS

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**Committee on
Tactical Combat
Casualty Care
(CoTCCC)**

TWO-HANDED (WINDLASS) TOURNIQUET APPLICATION IN TACTICAL FIELD CARE INSTRUCTION

TASK:	Apply a windlass tourniquet using a two-handed technique in Tactical Field Care (TFC)
CONDITION:	Given a TFC scenario in which the casualty and responder are in combat gear and you encounter a casualty with life-threatening bleeding from an extremity, and given a Joint First Aid Kit (JFAK) with a windlass tourniquet
STANDARD:	Control life-threatening bleeding by applying a two-handed tourniquet within 1 minute and securing the tourniquet within 3 minutes
EQUIPMENT:	Windlass tourniquet

PERFORMANCE MEASURES: step-by-step instructions

NOTE: Reassess any tourniquet applied in Care Under Fire and, if ineffective, tighten (if possible) and apply a second tourniquet side-by-side with the first if bleeding is not controlled.

- 01** Expose and assess the wound.
- 02** Remove the tourniquet from the casualty's JFAK and/or carrying pouch.
- 03** Insert the wounded extremity in the loop of the self-adhering band (looped) or route the band around the limb and pass the band tip through the slit of the buckle.
- 04** Position the tourniquet about 2–3 inches above the wound and directly on the skin.
- 05** Pull the self-adhering band **tightly**.
NOTE: Ensure all the slack in the self-adhering band is pulled through the routing buckle before the band is fastened back on itself and the windlass is twisted.
- 06** Fasten the band back on itself all the way around the limb (but not over the windlass rod clips).
- 07** Twist the windlass rod until bleeding has stopped.
NOTE: Complete steps 1–7 within 1 minute.
- 08** Lock the windlass rod in place with the windlass clip.
NOTE: If bleeding is not controlled and/or a distal pulse is present (a pulse below the tourniquet), continue to twist the windlass rod or apply a second tourniquet above the original tourniquet.
- 09** Route the self-adhering band around the rod and between the clips.
- 10** Secure with the windlass safety strap.
- 11** Document the time of tourniquet application on the windlass safety strap (or the casualty's forehead), completing the process within 3 minutes.
- 12** Document all findings and treatments on a DD Form 1380 TCCC Casualty Card and attach it to the casualty.

TWO-HANDED (RATCHET) TOURNIQUET APPLICATION IN TACTICAL FIELD CARE INSTRUCTION

TASK:	Apply a ratchet tourniquet using a two-handed technique in Tactical Field Care (TFC)
CONDITION:	Given a scenario in which casualty and responder are in combat gear and you encounter a casualty with severe bleeding of an extremity while in the TFC phase, and given a Joint First Aid Kit (JFAK) with ratchet tourniquet
STANDARD:	Control life-threatening bleeding by applying a ratchet tourniquet with a two-handed technique within 1 minute and securing the tourniquet within 3 minutes
EQUIPMENT:	Ratchet tourniquet

PERFORMANCE MEASURES: step-by-step instructions

NOTE: Reassess any tourniquet applied in Care Under Fire and, if ineffective, tighten (if possible) and apply a second tourniquet side-by-side with the first if bleeding is not controlled.

- 01** Expose and assess the wound.
- 02** Remove the tourniquet from the casualty's JFAK and/or carrying pouch.
- 03** Insert the wounded extremity in the loop of the tourniquet strap or route the strap around the limb, pass the tip through the routing buckle, and pull it back on itself.
- 04** Position the tourniquet about 2–3 inches above the wound and directly on the skin.
- 05** Pull the strap as **tightly** as possible, removing all excess slack.
NOTE: Ensure all the slack in the strap is pulled through the routing buckle before tightening with the ratchet device.
- 06** Ratchet the maneuver device as tightly as possible until the bleeding has stopped.
NOTE: Complete steps 1–6 within 1 minute.
- 07** Lock the ratchet on itself (it will click into place).
NOTE: If bleeding is not controlled, or a distal pulse is present (a pulse below the tourniquet), continue to tighten the ratchet tourniquet or apply a second tourniquet above the original tourniquet.
- 08** Wrap the excess strap around the ratchet device and secure it in place.
- 09** Document the time of tourniquet application on the safety strap (or the casualty's forehead), completing the process within 3 minutes.
- 10** Document all findings and treatments on a DD Form 1380 TCCC Casualty Card and attach it to the casualty.

WOUND PACKING AND PRESSURE BANDAGE INSTRUCTION

TASK:	Pack a wound with a dressing and apply a pressure bandage
CONDITION:	Given a Tactical Field Care scenario where casualty and responder are in combat gear and a casualty has a major non-life-threatening bleed in a location where a tourniquet cannot be applied or bleeding adequately controlled, and given a dressing and an elastic or pressure bandage
STANDARD:	Apply a dressing and an effective pressure bandage to control bleeding following all steps and performance measures without further injuring the casualty
EQUIPMENT:	A Joint First Aid Kit or materials for a dressing and pressure bandage

PERFORMANCE MEASURES: step-by-step instructions

- 01** Expose the wound, if not previously exposed.
NOTE: Remove clothing and equipment as required.
- 02** Locate the source of the most active bleeding and apply direct pressure.
- 03** Remove the hemostatic gauze from its sterile package.
NOTE: If hemostatic gauze or a dressing is not available, use clean, dry cloth material.
- 04** Pack the hemostatic gauze tightly into the wound directly over the site of the most active bleeding.
NOTE: Fill and pack the whole wound cavity tightly while keeping firm pressure on the wound. More than one gauze may be required to stop the blood flow.
CAUTION: If a penetrating object is lodged in the casualty's body, bandage it in place. **Do not** remove the object.
- 05** Ensure the gauze extends 1–2 inches above the skin.
NOTE: If the gauze does not extend 1–2 inches above the skin, place additional gauze.
- 06** After packing, continue to apply firm, manual pressure until the bleeding stops. Hold continuous direct pressure for a minimum of 3 minutes.
- 07** Reassess to ensure bleeding has been controlled while maintaining pressure.
NOTE: Ensure blood is not seeping through or around the gauze. If bleeding has stopped, leave the gauze in place.
- 08** If bleeding has not been controlled:
 - (a) If packed with hemostatic dressing, remove prior packing material and repack starting at step 3.
 - (b) If packed with gauze or other materials, apply additional gauze/materials and pressure (for another 3 minutes) until bleeding has stopped.
- 09** Remove the pressure bandage from the pouch and packaging.
- 10** Place the pad (bandage) directly on the wound, or any dressing previously applied, continuing to apply direct pressure.
- 11** Wrap the pressure/elastic bandage tightly around the extremity, focusing pressure over the wound and ensuring that the edges of the pad are covered.
NOTE: If the bandage has a pressure bar, insert the elastic wrap completely into the pressure bar, pull the bandage tight, and reverse it back over the top of the pressure bar, forcing it down onto the pad.
- 12** Secure the hooking ends of the Velcro or closure bar onto the last wrap of the bandage.
- 13** Check for circulation below the pressure bandage by feeling for distal pulse (a pulse below the bandage).
NOTE: If the skin below the pressure bandage becomes cool to the touch, bluish, or numb, or if the pulse below the pressure dressing is no longer present, the pressure bandage may be too tight.
NOTE: If circulation is blocked or stopped, loosen and retie the bandage.
- 14** Document all findings and treatments on a DD Form 1380 TCCC Casualty Card and attach it to the casualty.

NECK JUNCTIONAL HEMORRHAGE CONTROL INSTRUCTION

TASK:	Apply a hemostatic dressing and pressure bandage to the neck
CONDITION:	Given a scenario in which casualty and responder are in combat gear and you encounter a casualty with a neck wound resulting in life-threatening bleeding while in the Tactical Field Care phase, and have a hemostatic dressing and pressure bandage in your Joint First Aid Kit
STANDARD:	Control life-threatening bleeding from a neck wound by packing with a hemostatic dressing within 90 seconds and applying a pressure bandage
EQUIPMENT:	Hemostatic dressing and pressure bandage

PERFORMANCE MEASURES: step-by-step instructions

- 01** Expose the injury and assess the bleeding source.
NOTE: Clothing may need to be cut away to properly expose the injury.
- 02** If possible, apply direct pressure to the source of the most active bleeding, and using the casualty's Joint First Aid Kit (JFAK), remove the hemostatic dressing from its sterile package.
- 03** Pack the neck wound tightly with hemostatic gauze until the wound cavity is filled (finishing the packing within 90 seconds).
NOTE: More than one gauze may be required to stop the blood flow.
CAUTION: If a penetrating object is lodged into the casualty's body, bandage it in place.
Do not remove the object.
- 04** Ensure gauze extends 1–2 inches above the skin.
NOTE: If gauze does not extend 1–2 inches above the skin, place additional gauze.
- 05** Hold pressure for a minimum of 3 minutes.
- 06** Reassess to ensure bleeding has been controlled while maintaining pressure.
- 07** If bleeding has not been controlled:
 - (a) If packed with hemostatic dressing, remove prior packing material and repack starting at step 3.
 - (b) If packed with gauze, apply additional gauze and pressure (for 3 minutes) until bleeding has stopped.
- 08** Place a 6-inch elastic bandage over the dressing, leaving enough tail to tie it into a knot.
- 09** While maintaining pressure on the dressing/gauze, wrap the pressure (or elastic) bandage (no less than 1–1½ times) over the packing material, ensuring it is covered completely. Wrap diagonally across the chest under the opposite arm (armpit) around the back to the neck and back over the wound.
- 10** Wrap around the neck and under the arm (on alternating sides of the tail, while maintaining tension/pressure), pulling the elastic bandage tightly for pressure, covering the packing material.
NOTE: **Do not** use pressure bar on the neck.
- 11** Secure the dressing by tying a non-slip knot with the end of the elastic bandage and its tail.
- 12** Secure elastic bandage tails with 3-inch tape, wrapping the tape a minimum of 1–1½ times around the knot.
- 13** Swath the upper arm (of the injured side) to the chest using a bandage.
- 14** Continue to assess the wound for further bleeding.
- 15** Document all findings and treatments on a DD Form 1380 TCCC Casualty Card and attach it to the casualty.

AXILLARY (ARMPIT) JUNCTIONAL HEMORRHAGE CONTROL INSTRUCTION

TASK:	Apply a hemostatic dressing and pressure bandage to an axillary wound
CONDITION:	Given a scenario in which casualty and responder are in combat gear and you encounter a casualty with an axillary wound resulting in life-threatening bleeding while in the Tactical Field Care phase, and have a hemostatic gauze and pressure bandage
STANDARD:	Control life-threatening bleeding from an axillary wound by packing with a hemostatic dressing within 90 seconds and applying a pressure bandage
EQUIPMENT:	A hemostatic dressing and pressure bandage

PERFORMANCE MEASURES: step-by-step instructions

- 01** Lift the arm to expose the injury and assess the bleeding source.
NOTE: Clothing may need to be cut away to properly expose the injury.
NOTE: The best position to treat the casualty is the seated position. If the casualty cannot be treated in the seated position, you will need to sit the casualty up as much as possible to apply the elastic bandage.
- 02** If possible, apply direct pressure to the source of the most active bleeding, and using the casualty's Joint First Aid Kit (JFAK), remove the hemostatic dressing from its sterile package.
- 03** Extend the casualty's arm at a 90-degree angle by placing it on your shoulder (to maintain elevation of the arm), while proceeding through steps 4–12.
- 04** Pack the axillary wound tightly with hemostatic gauze until the wound cavity is filled (finishing the packing within 90 seconds).
NOTE: More than one gauze may be required to stop the blood flow.
CAUTION: If a penetrating object is lodged into the casualty's body, bandage it in place.
Do not remove the object.
- 05** Ensure the gauze extends 1–2 inches above the skin.
NOTE: If the gauze does not extend 1–2 inches above the skin, place additional gauze.
- 06** Hold pressure for a minimum of 3 minutes.
- 07** Reassess to ensure bleeding has been controlled while maintaining pressure.
- 08** If bleeding has not been controlled:
 - (a) If packed with hemostatic dressing, remove prior packing material and repack starting at step 3.
 - (b) If packed with gauze, apply additional gauze and pressure (for 3 minutes) until bleeding has stopped.
- 09** While maintaining pressure on the dressing/gauze, wrap the pressure (or elastic) bandage around the injured shoulder twice, ensuring the gauze underneath is completely covered.
NOTE: If using an elastic bandage without a closure bar, leave a tail on the posterior side of the casualty.
- 10** Wrap the elastic bandage across, back, and under the opposite armpit, anchoring around the opposite shoulder in a "Figure 8" pattern.
- 11** Depending on the bandage used, secure with the closure bar or tie the tails of the elastic bandage together with a non-slip knot.
- 12** Secure pressure (elastic) bandage tails and knot using 3-inch tape, wrapping the tape a minimum of 1–1½ times around the knot.
- 13** Swath the upper arm to the side of the chest using a cravat.
- 14** Continue to assess the wound for further bleeding.
- 15** Document all findings and treatments on a DD Form 1380 TCCC Casualty Card and attach it to the casualty.

INGUINAL (GROIN) HEMORRHAGE CONTROL WITH IMPROVISED JUNCTIONAL PRESSURE DELIVERY DEVICE INSTRUCTION

TASK: Apply a hemostatic dressing and pressure bandage with a pressure delivery device to an inguinal (groin) wound

CONDITION: Given a scenario in which casualty and responder are in combat gear and a casualty has sustained a wound to the groin resulting in life-threatening hemorrhage that is not amenable (cannot be controlled) with an extremity tourniquet while in the Tactical Field Care phase, and a hemostatic dressing and pressure bandage with an improvised pressure delivery device

STANDARD: Control life-threatening bleeding from an inguinal wound by effectively applying an improvised junctional pressure delivery device without causing further injury to the casualty

PERFORMANCE MEASURES: step-by-step instructions

- 01** Expose the injury and assess the bleeding source.
NOTE: Clothing may need to be cut away to properly expose the injury.
- 02** Apply direct pressure to the source of most active bleeding by placing a hand, first, or elbow squarely in the inguinal gutter on the injured side while opening the sterile hemostatic gauze package.
NOTE: The inguinal gutter is the crevice between the top of the thigh and the lower abdomen where heavy blood flow structures are located. Location is halfway between the bone above the genitals and top of the thigh.
- 03** Remove the hand, fist, or elbow and immediately apply direct pressure while tightly packing the inguinal wound with hemostatic gauze until the wound cavity is filled (finishing the packing within 90 seconds).
NOTE: More than one gauze may be required to stop the blood flow.
CAUTION: If a penetrating object is lodged in the casualty's body, bandage it in place. **Do not** remove the object.
NOTE: Ensure gauze extends 1–2 inches above the skin. If gauze does not extend 1–2 inches above the skin, place additional gauze.
- 04** Hold pressure for a minimum of 3 minutes.
- 05** Reassess to ensure bleeding has been controlled while maintaining pressure.
- 06** If bleeding has not been controlled:
 - (a) If packed with hemostatic dressing, remove prior packing material and repack starting at step 3.
 - (b) If packed with gauze, apply additional gauze and pressure (for 3 minutes) until bleeding has stopped.
- 07** Select a cylindrical or spherical Pressure Delivery Device (PDD) and position into the inguinal gutter while continuously maintaining pressure to the dressing.
NOTE: PDD examples: shoe/boot, full water bottle, canteen.
- 08** Select a tourniquet that can wrap around the casualty's waist/hip area or connect two tourniquets.
- 09** Place the windlass or ratchet tourniquet directly over the middle of the PDD; ensure that the routing buckle is located toward the medial (middle) aspect of the body.
- 10** Remove all slack from the self-adhering band or strap using a pushing motion across the casualty's body before tightening the tourniquet.
- 11** Tighten the tourniquet until bleeding has stopped and the distal pulse has been checked and is absent.
NOTE: If bleeding is not controlled and/or distal pulse (a pulse below the tourniquet) is present, remove any remaining slack in the strapping (if possible) and twist or ratchet the tourniquet device until bleeding is controlled and/or a distal pulse is absent.
- 12** Visually inspect placement of equipment, ensuring the PDD is in place and the windlass/ratchet are properly positioned over the device.
- 13** Document all findings and treatments on a DD Form 1380 TCCC Casualty Card and attach it to the casualty.

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