



COMBAT MEDIC/CORPSMAN
TACTICAL COMBAT CASUALTY CARE

MODULE 09:
**CIRCULATION/
HEMORRHAGE
CONTROL IN TFC
SKILL INSTRUCTIONS**

23 JAN 21



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

WOUND PACKING AND PRESSURE BANDAGE INSTRUCTION

TASK:	Pack a wound with a hemostatic 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 non-life-threatening bleed in a location where a tourniquet cannot be applied or bleeding adequately controlled, and given a hemostatic dressing and an elastic or pressure bandage
STANDARD:	Apply a hemostatic 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 hemostatic dressing and pressure bandage

PERFORMANCE MEASURES: step-by-step instructions

NOTE: Consider body substance isolation.

NOTE: If a Combat Lifesaver is available, direct them to assist.

- 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 dressing from its sterile package.
NOTE: If a hemostatic dressing is not available, use gauze or clean, dry cloth material.
- 04** Pack the hemostatic dressing 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.
NOTE: More than one hemostatic dressing or 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 hemostatic dressing or gauze extends 1–2 inches above the skin.
NOTE: If the hemostatic dressing or gauze does not extend 1–2 inches above the skin, place additional hemostatic dressing or 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 hemostatic dressing. If bleeding has stopped, leave the hemostatic dressing in place while still 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 or other materials, apply additional gauze/materials and pressure (for another 3 minutes) until bleeding has stopped.
- 09** Remove the pressure bandage from its package.
- 10** Place the pad (bandage) directly over the wound on previously applied hemostatic dressing while 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 hook and loop straps or closure bar onto the last wrap of the bandage.
- 13** Check for circulation below the pressure bandage by feeling for distal pulse.
NOTE: If the skin below the pressure bandage becomes cool to the touch, bluish, or numb, or if the distal pulse is no longer present, the pressure bandage may be too tight and should be loosened and reapplied; if bleeding reoccurs you may need to apply a limb or junctional tourniquet.
- 14** Document all findings and treatments on a DD Form 1380 TCCC Casualty Card and attach it to the casualty.

TOURNIQUET REPLACEMENT INSTRUCTION

TASK:	Replace a tourniquet
CONDITION:	Given a scenario in the Tactical Field Care phase where you have a casualty with a previously applied high & tight limb tourniquet during Care Under Fire, whose bleeding is controlled but requires a more appropriately placed Committee on Tactical Combat Casualty Care (CoTCCC)-recommended tourniquet
STANDARD:	Maintain hemorrhage control while applying a new appropriately placed CoTCCC-recommended tourniquet
EQUIPMENT:	CoTCCC-recommended limb tourniquet, casualty's Joint First Aid Kit and/or medic aid bag

PERFORMANCE MEASURES: step-by-step instructions

NOTE: Consider body substance isolation.

NOTE: If a Combat Lifesaver is available, direct them to assist.

- 01** Expose the injury and assess the bleeding source.
- 02** Assess previously applied tourniquet(s) for effectiveness at controlling bleeding and proximity to the bleeding site.
- 03** Check for distal pulse.
NOTE: If distal pulse is present or bleeding is not controlled, attempt to tighten the tourniquet(s) further. If distal pulse is still present or bleeding persists, proceed immediately to step 4.
- 04** Apply a CoTCCC-recommended tourniquet directly on the skin 2-3 inches above the bleeding site if possible (see Tourniquet Application Instructions).
- 05** Slowly release original tourniquet(s) over one minute.
- 06** Watch the area where bleeding originally took place, ensuring no bleeding reoccurs.
NOTE: If bleeding reoccurs, immediately retighten initial tourniquet(s), ensuring bleeding is controlled, and further tighten the newly applied tourniquet. Repeat steps 5 and 6 until the new tourniquet controls bleeding; however, if repeated attempts to establish a new tourniquet fail, retighten the original tourniquet(s) and leave in place, remove the new tourniquet, and proceed with the remainder of your assessment.
- 07** Assess to ensure distal pulse is absent, and bleeding is still controlled.
- 08** Slide originally placed tourniquet(s) down, but leave in place proximal to the newly placed tourniquet.
NOTE: If relocated, replaced tourniquets should not be fully tightened, but excess slack should be removed to avoid interfering with future treatments and casualty movement.
- 09** Annotate the time of the new tourniquet placement on the tourniquet.
- 10** Document all findings and treatments on a DD Form 1380 TCCC Casualty Card and attach it to the casualty.

TOURNIQUET CONVERSION INSTRUCTION

TASK:	Convert a tourniquet to a hemostatic dressing and pressure bandage
CONDITION:	Given a scenario in the Tactical Field Care phase where you encounter a casualty who is bleeding from a non-amputated limb that has been controlled by a tourniquet, is not in shock, and you have assessed the wound to be amendable to a hemostatic dressing and pressure bandage and/or extended evacuation is expected
STANDARD:	Convert the tourniquet to an effective hemostatic dressing and pressure bandage that controls bleeding in 4 minutes or less
EQUIPMENT:	Committee on Tactical Combat Casualty Care-recommended tourniquet, hemostatic dressing, and pressure bandage

PERFORMANCE MEASURES: step-by-step instructions

NOTE: Consider body substance isolation.

NOTE: If a Combat Lifesaver is available, direct them to assist.

- 01** Expose the wound, if not previously exposed.
NOTE: Remove clothing and equipment as required.
- 02** Remove the hemostatic dressing or gauze from its sterile package.
NOTE: If hemostatic dressing or gauze is not available, use clean, dry cloth material.
- 03** Pack the dressing tightly into the wound.
NOTE: Fill and pack the whole wound cavity tightly while keeping firm pressure on the wound. More than one hemostatic dressing or gauze may be required.
- 04** Ensure the hemostatic dressing or gauze extends 1–2 inches above the skin.
NOTE: If the hemostatic dressing or gauze does not extend 1–2 inches above the skin, place additional hemostatic dressing or gauze.
NOTE: If a penetrating object is lodged in the casualty's body, bandage it in place. **Do not** remove the object.
- 05** After packing, continue to apply firm, manual pressure for a minimum of 3 minutes.
- 06** Remove the pressure bandage from its package.
- 07** Place the pad of the pressure bandage directly over the wound or previously applied hemostatic dressing while continuing to apply direct pressure.
- 08** 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.
- 09** Secure the hooking ends of the hook and loop straps or closure bar onto the last wrap of the bandage.
- 10** Slowly release the tourniquet (over one minute); observe the bandage for bleeding.
NOTE: Convert tourniquets in less than 2 hours, if possible, but do not remove a tourniquet that has been in place more than 6 hours.
NOTE: If bleeding reoccurs, retighten the original tourniquet, ensuring bleeding is controlled and the distal pulse is absent.
- 11** Document all findings and treatments on a DD Form 1380 TCCC Casualty Card and attach it to the casualty.

PELVIC COMPRESSION DEVICE (PCD) INSTRUCTION

TASK:	Apply a Committee on Tactical Combat Casualty Care (CoTCCC)-recommended PCD
CONDITION:	Given a scenario in the Tactical Field Care phase where you encounter a casualty with a suspected pelvic fracture that requires a CoTCCC-recommended PCD
STANDARD:	Apply a CoTCCC-recommended PCD in 90 seconds or less
EQUIPMENT:	CoTCCC-recommended PCD, casualty's Joint First Aid Kit and/or medic aid bag

PERFORMANCE MEASURES: step-by-step instructions

NOTE: Consider body substance isolation.

NOTE: If a Combat Lifesaver (CLS) is available, direct them to assist.

- 01** Empty the casualty's pockets and remove items from around the hip area.
NOTE: Direct the CLS to manually stabilize the area (if possible).
- 02** Place the casualty in the supine position.
- 03** Look for signs of deformities, contusions, abrasions, punctures, burns, lacerations or swelling; and palpate for tenderness, instability or crepitus.
- 04** Pass the PCD behind the thighs and slide it upward to the level of the greater trochanters.
- 05** Place the strap through the buckle and pull completely through.
- 06** Pull opposing straps firmly in the opposite direction until you hear and feel the buckle click.
NOTE: Binder may not always click when appropriately applied.
- 07** Maintain tension and immediately press the free end of the strap onto the surface of the PCD.
NOTE: Do not be concerned if you hear a second click after the PCD is secured.
- 08** Secure the legs together to minimize external rotation of the thighs.
- 09** Monitor the casualty for effective hemorrhage control by assessing for shock (altered mental status in the absence of brain injury and/or weak or absent radial pulse), as these are signs of internal bleeding that may not be visible.
NOTE: Reapply the PCD if signs and symptoms of shock appear or worsen, tactical situation permitting.
- 10** Document all findings and treatments on a DD Form 1380 TCCC Casualty Card and attach it to the casualty.
NOTE: Use of a PCD does not preclude use of a junctional tourniquet if indicated.

IMPROVISED PELVIC COMPRESSION DEVICE (PCD) INSTRUCTION

TASK:	Apply an improvised PCD
CONDITION:	Given a Tactical Field Care scenario where the casualty and responder are in combat gear and the casualty has a suspected fracture of the pelvis, but you DO NOT have a Committee on Tactical Combat Casualty Care-recommended PCD
STANDARD:	Apply an effective improvised PCD following all steps and meeting all performance measures without causing further injury to the casualty
EQUIPMENT:	Improvised PCD materials, such as the casualty's uniform pants, cravats, zip ties, elastic wraps/bandages, sheets, tourniquets, or emergency blankets, casualty's Joint First Aid Kit and/or medic aid bag

PERFORMANCE MEASURES: step-by-step instructions

NOTE: Consider body substance isolation.

NOTE: If a Combat Lifesaver (CLS) is available, direct them to assist.

- 01** Empty the casualty's pockets and remove items from around the hip area.
NOTE: Direct the CLS to manually stabilize the area (if possible).
- 02** Place the casualty in the supine position.
- 03** Look for signs of deformities, contusions, abrasions, punctures, burns, lacerations or swelling; and palpate for tenderness, instability or crepitus.
- 04** Collect and prepare the improvised PCD materials (the casualty's uniform pants, cravats, zip ties, elastic wraps/bandages, sheets, tourniquets or emergency blankets) for application.
- 05** Cut the pant legs of the trousers from the bottom superiorly to the level of the greater trochanters.
- 06** Lay out the pant legs, fanning them out to the right and left of the casualty perpendicular to the body at the level of the greater trochanters.
- 07** Add padding between legs.
- 08** Wrap or tape upper thighs together.
- 09** Wrap or tape feet together.
- 10** Wrap the pant legs tightly around the pelvis (in front of the casualty).
- 11** Tie pant legs together with a square knot.
NOTE: Alternatively, other materials that can encircle the pelvis can be used as an improvised PCD if the casualty's trousers are severely damaged and unusable.
- 12** Monitor the casualty for effective hemorrhage control by assessing for shock (altered mental status in the absence of brain injury and/or weak or absent radial pulse), as these are signs of internal bleeding that may not be visible.
NOTE: Reapply the PCD if signs and symptoms of shock appear or worsen, tactical situation permitting.
- 13** Document all findings and treatments on a DD Form 1380 TCCC Casualty Card and attach it to the casualty.
NOTE: Use of an improvised PCD does not preclude use of a junctional tourniquet if indicated.

Developed by the

JOINT TRAUMA SYSTEM

A Combat Support Division of the



DEFENSE HEALTH AGENCY