

CLS

TCCC

**COMBAT
LIFESAVER**

TACTICAL COMBAT CASUALTY CARE COURSE

MODULE 09: CIRCULATION / HEMORRHAGE CONTROL



Committee on
Tactical Combat
Casualty Care
(CoTCCC)

TCCC TIER 1
All Service Members

TCCC TIER 2
Combat Lifesaver

TCCC TIER 3
Medic/Corpsman

TCCC TIER 4
Combat Paramedic/Provider

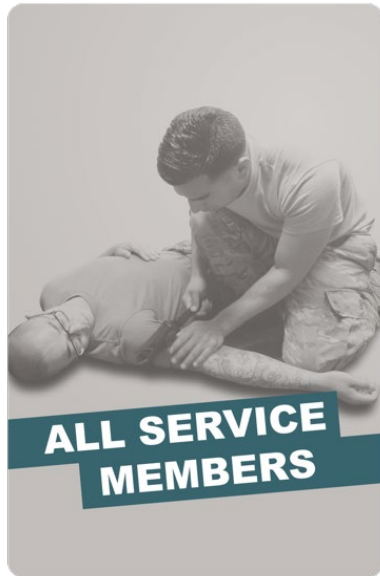
CHANGE LOG - Curriculum Update History

CHANGE DATE	PRODUCT UPDATE	DESCRIPTION OF CHANGE
29 April 2025	Module 9 - Didactic PPT Slides 13 and 22	Updated TCCC 1380 Card image to reflect changing “gender” to “sex”

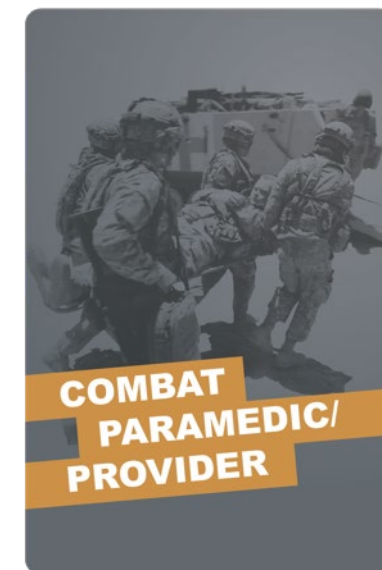
TACTICAL COMBAT CASUALTY CARE (TCCC) ROLE-BASED TRAINING SPECTRUM

ROLE 1 CARE

NONMEDICAL PERSONNEL



MEDICAL PERSONNEL



◀ **YOU ARE HERE**

STANDARDIZED JOINT CURRICULUM

STUDENT LEARNING OBJECTIVES

LEARNING OBJECTIVES

10 Given a combat or noncombat scenario, perform hemorrhage control during Tactical Field Care in accordance with CoTCCC Guidelines

- 60 Identify the principles of wound packing and applying pressure bandages
- 61 Demonstrate wound packing and applying a pressure bandage
- 62 Identify the signs, symptoms, and considerations of a pelvic fracture
- 63 Identify the indications and methods of tourniquet replacement in Tactical Field Care
- 64 Identify the indications and methods of tourniquet conversion in Tactical Field Care
- 65 Demonstrate limb tourniquet replacement in Tactical Field Care
- 66 Demonstrate limb tourniquet conversion in Tactical Field Care

01 **TERMINAL LEARNING OBJECTIVES (TLOs)**

07 **ENABLING LEARNING OBJECTIVES (ELOs)**

● = Cognitive ELOs
● = Performance ELOs

Three PHASES of TCCC

1 CARE UNDER FIRE

RETURN FIRE
AND TAKE COVER

Quick decision-making:

- Consider scene safety
- Identify and control life-threatening bleeding
- Move casualty to safety

2 TACTICAL FIELD CARE

COVER AND
CONCEALMENT

Basic management plan:

- Maintain tactical situational awareness
- Triage casualties as required
- Conduct MARCH PAWS assessment

3 TACTICAL EVACUATION CARE

More deliberate assessment and treatment of unrecognized life-threatening injuries

- Pre-evacuation procedures
- Continuation of documentation

NOTE: This is covered in more advanced TCCC training!

TACTICAL FIELD CARE

MARCH PAWS

DURING LIFE-THREATENING

- M** MASSIVE BLEEDING #1 Priority
- A** AIRWAY
- R** RESPIRATION (*breathing*)
- ▶ **C** CIRCULATION
- H** HYPOTHERMIA / HEAD INJURIES

AFTER LIFE-THREATENING

- P** PAIN
- A** ANTIBIOTICS
- W** WOUNDS
- S** SPLINTING

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HEMORRHAGE CONTROL IN TFC



Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

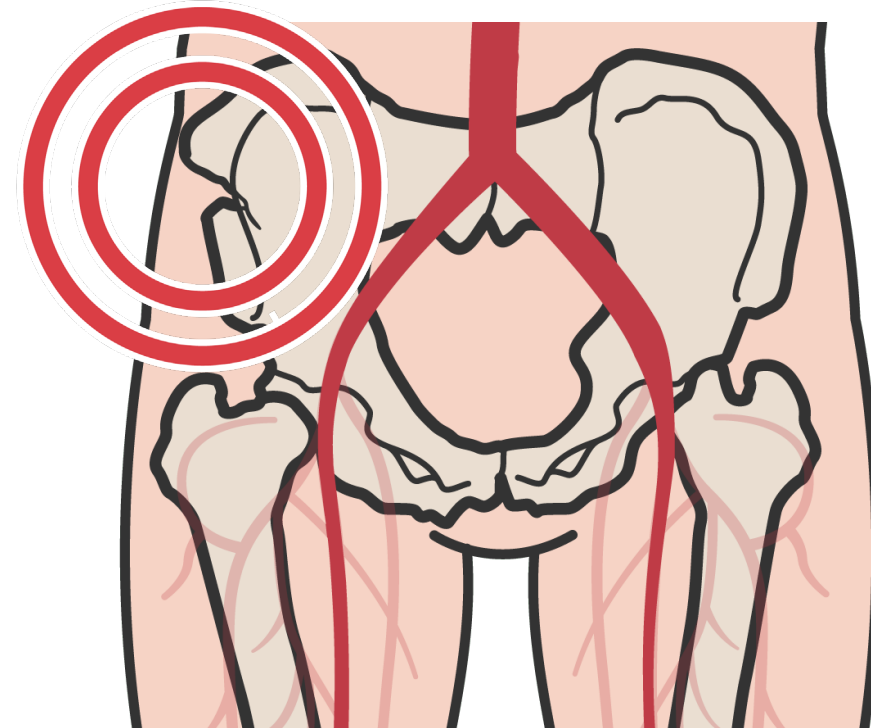
HEMORRHAGE CONTROL

PELVIC FRACTURES

Pelvic fracture may be **suspected** if the casualty's injuries are a result of blunt force or blast with **ONE OR MORE** of the following:

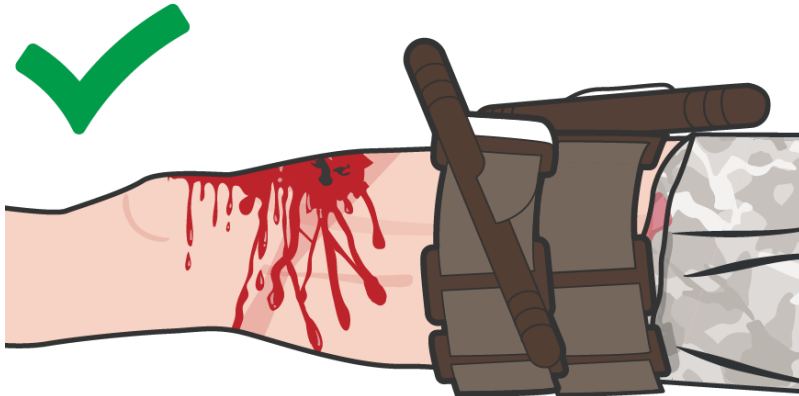
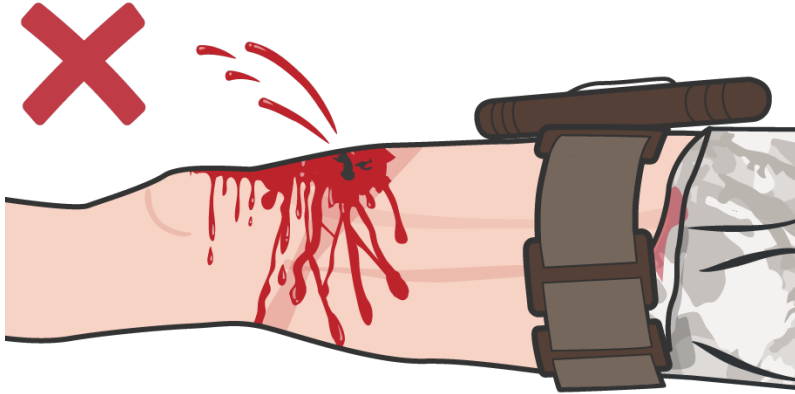
Physical signs suggesting a pelvic fracture:

- **Pelvic pain**
- Major lower limb **amputation** **OR** lower **near amputations**
- Deformities, penetrating injuries, bruising near the pelvis
- **Pelvic instability** or **crepitus** (crinkly or grating feeling or sound under the skin)
- **Unconsciousness** or **shock**



If a pelvic fracture is **suspected**, the casualty **WILL REQUIRE** advanced evaluation by **medical personnel**

HEMORRHAGE CONTROL REASSESSMENT



- Reassess all **PREVIOUS** and **CURRENT** applied TQ's and ensure they are tight and effective
- If **ineffective**, apply a **second TQ side-by-side** with the first
- Reassess all **PREVIOUS** and **CURRENT** hemostatic dressings applied for effectiveness
- If you placed a TQ above a casualty's elbow, for instance, you should expect to **find no pulse** at the wrist below if the TQ was properly applied

HEMORRHAGE CONTROL

REASSESSMENT Cont.

EARLY CONTROL OF SEVERE HEMORRHAGE IS CRITICAL

CoTCCC-recommended tourniquets are to be applied **directly to the skin** in **TFC 2-3 inches above the bleeding site**

Casualty's hemorrhage control interventions **must be FREQUENTLY REASSESSED** to ensure continued hemorrhage control



**DO NOT EVER APPLY IT
AND FORGET IT!**

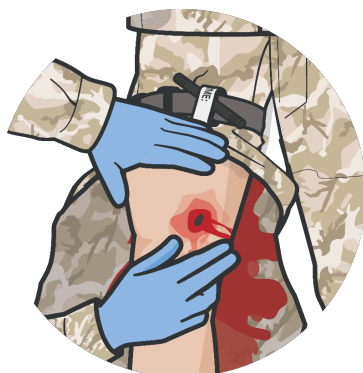


TOURNIQUET REPLACEMENT INDICATIONS AND METHODS

INDICATIONS

for tourniquet replacement:

- Tourniquets applied over the uniform
- Tourniquets applied too proximal on the extremity (>3" above the wound)
- >2 hours to surgery



Determine if a tourniquet replacement is indicated



Apply replacement tourniquet 2-3" proximal to wound directly on the skin



Slowly release original tourniquet, ensuring no rebleeding occurs



Slide original tourniquet down proximal to the newly placed tourniquet and annotate time



Annotate time of new tourniquet placement



If tourniquet replacement cannot prevent bleeding, revert back to original tourniquet



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Module 9: Circulatory Hemorrhage Control in TFC

TOURNIQUET REPLACEMENT



Video can be found on deployedmedicine.com

TOURNIQUET CONVERSION INDICATIONS AND METHODS

CONTRAINDICATIONS for tourniquet conversion:

- Shock
- Inability to closely monitor for rebleeding
- Amputation

Also, consider not converting a tourniquet if:

- If the tourniquet has been in place more than 6 hours
- Tactical or medical considerations make transition inadvisable



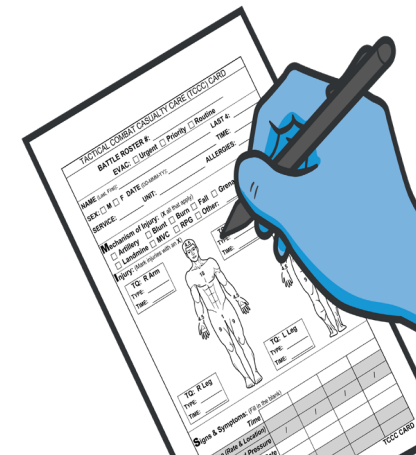
Pack wound and
hold pressure for
3 minutes



Apply pressure
bandage



Slowly release
tourniquet over 1
minute, ensuring no
rebleeding occurs



Document all findings
and treatments on a
DD Form 1380
TCCC Casualty Card



If tourniquet conversion does not control bleeding, revert back to a tourniquet



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TOURNIQUET CONVERSION



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Module 9: Circulatory Hemorrhage Control in TFC

SKILL STATION

Tourniquet Replacement and Tourniquet Conversion



Tourniquet Replacement

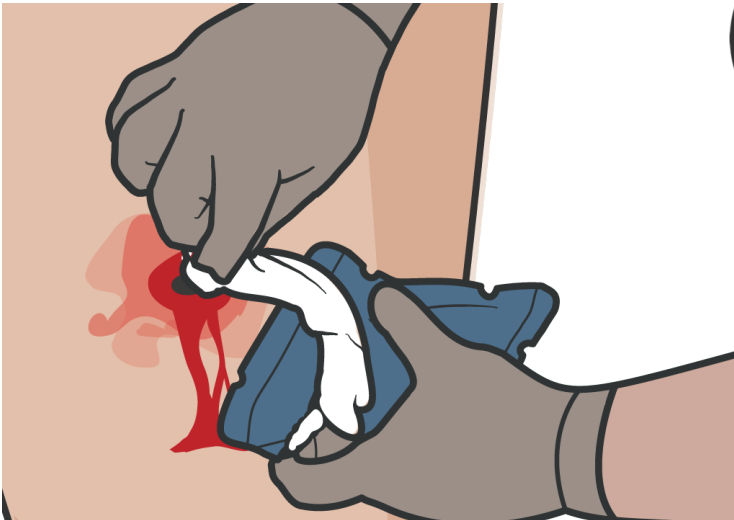


Tourniquet Conversion

(Using Wound Packing With Hemostatic Dressing and Pressure Bandages)

HEMORRHAGE CONTROL

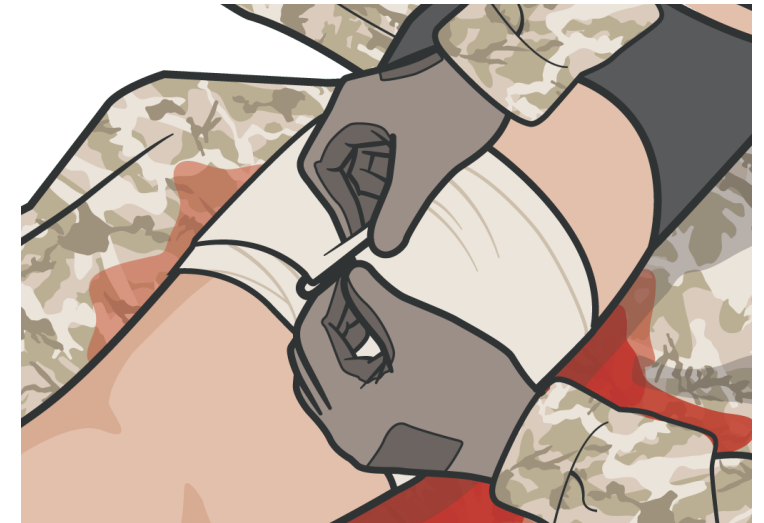
WOUND PACKING and PRESSURE BANDAGE



- Identify the **exact source** of bleeding
- Pack** the wound



- Apply direct pressure for **3 MINUTES**



- Secure** with bandage
- If the bandage has a pressure bar, **pull the bandage TIGHT**, and reverse it back over the top of the pressure bar, **forcing it down** onto the pad

HEMORRHAGE CONTROL

WOUND PACKING



Identify the **exact source** of bleeding and **APPLY** direct pressure as a **temporary** measure **UNTIL** gauze is placed

Pack the wound **maintaining** **CONSTANT** direct pressure at the source of bleeding within **90 SECONDS** to be effective



HOLD direct pressure on the gauze over the wound for at least **3 MINUTES** (this is **necessary**, even with the active ingredient in hemostatic dressings)

When packing a large wound, more than one hemostatic gauze and/or **additional** gauze may be **needed**

Carefully **observe** to determine if bleeding has been **controlled**

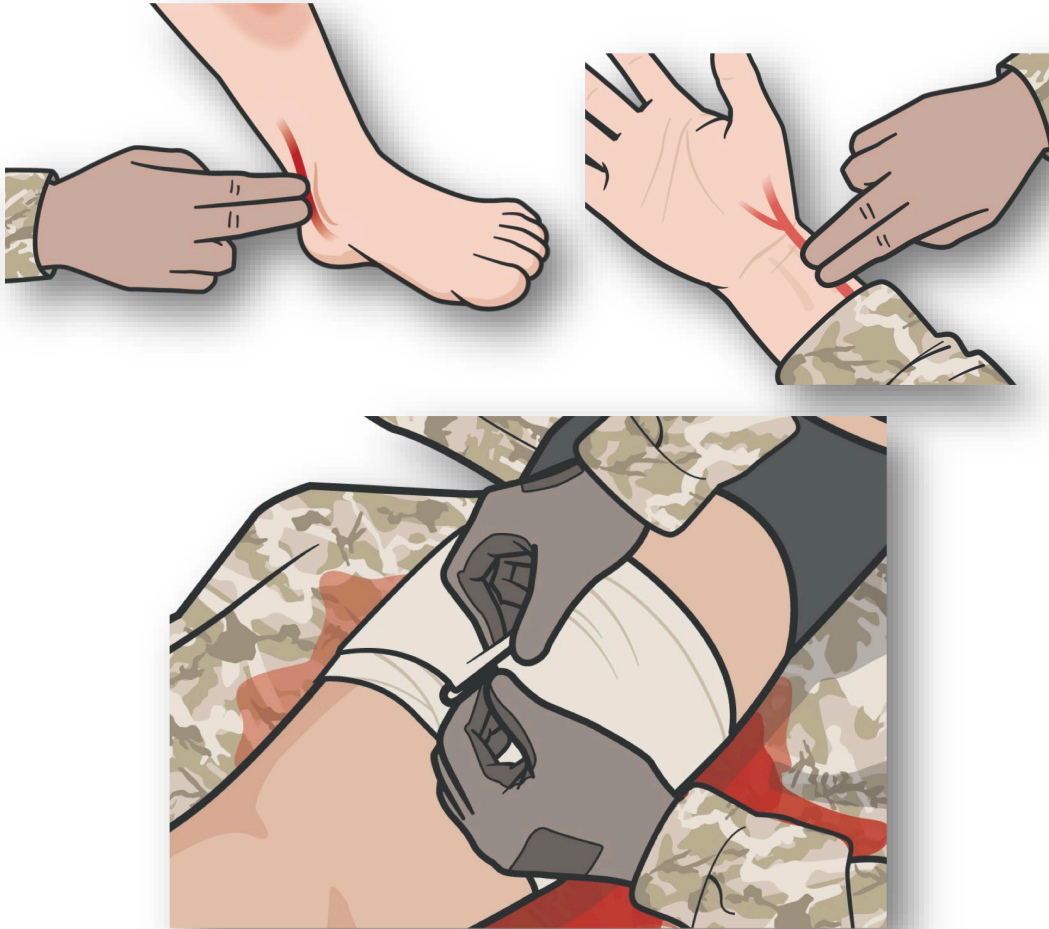


Once you are sure the bleeding has **stopped**, apply a pressure bandage



HEMORRHAGE CONTROL

PRESSURE BANDAGE REASSESSMENT



Key Points:

Check for **circulation BELOW** the pressure bandage by **feeling for distal pulse** (a pulse below the bandage)

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**

If circulation is **BLOCKED** or **STOPPED**, **loosen** and **retie** the bandage

Dressings and bandages should be **reassessed** and checked **routinely** and **EVERY TIME** a **casualty is moved**

HEMORRHAGE CONTROL

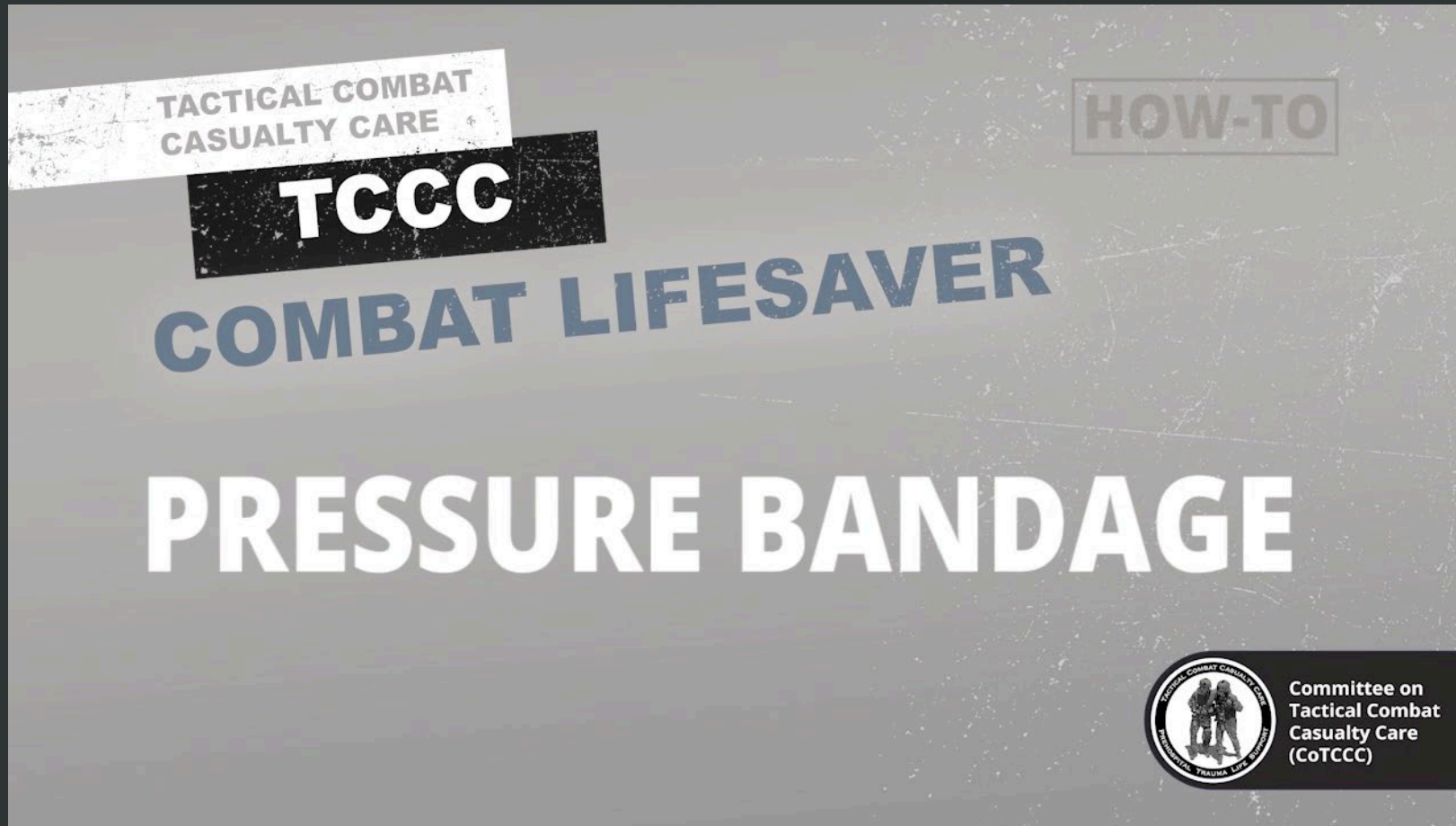
IF THE PRESSURE BANDAGE IS INEFFECTIVE

If the pressure bandage or hemostatic dressing is ineffective, **APPLY** a tourniquet 2-3 inches above the bleeding site

If the pressure bandage is ineffective **AND/OR** blood soaked, **REPLACE** pressure dressing with **hemostatic dressing**

Pack the wound, maintaining **CONSTANT** direct pressure at the source of bleeding within **90 SECONDS** to be effective

PRESSURE BANDAGE



Video can be found on DeployedMedicine.com

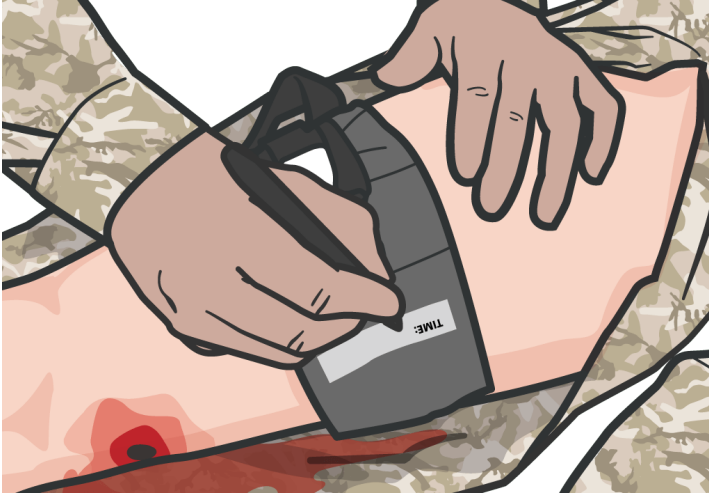
SKILL STATION

Circulation/Hemorrhage Control (Skills)

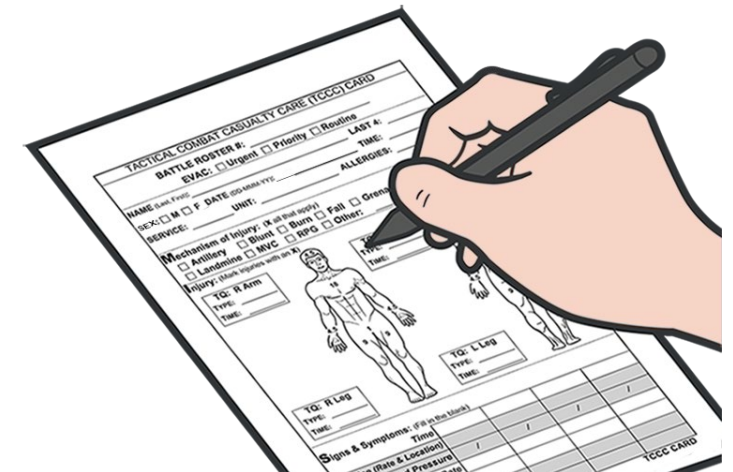
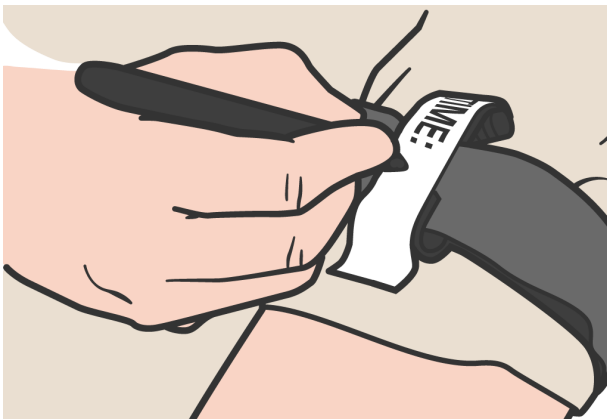
Wound Packing With Hemostatic Dressing and Pressure Bandage

HEMORRHAGE CONTROL



SUMMARY



- If not already done, **clearly mark ALL TQs** with the **time** of TQ application and document that on the **DD Form 1380 TCCC Casualty Card**
- Check for radial pulse
- Assess for shock



CHECK ON LEARNING

-  During Circulation in the MARCH PAWS sequence, what interventions should be reassessed?
-  What are the signs and symptoms of a pelvic fracture?



ANY QUESTIONS?

