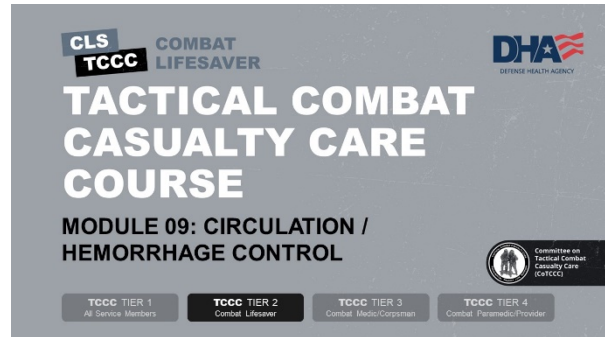


## MODULE 09 – HEMORRHAGE CONTROL IN TFC

### SLIDE 1 – TITLE SLIDE

Good morning/afternoon, my name is (insert here) and I will be your lead trainer for Module 9: Circulation/Hemorrhage control in the Tactical Field Care (TFC) environment.

Before we get started are there any questions?



### SLIDE 2 – TCCC ROLES

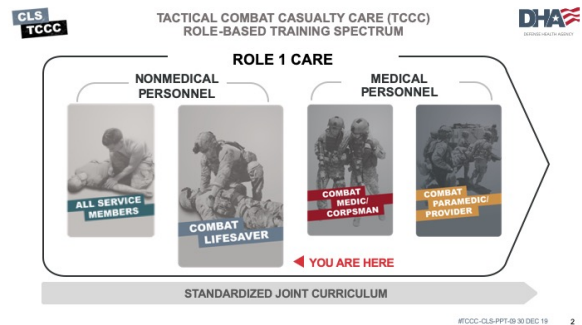
Tactical Combat Casualty Care is broken up into 4 roles of care. The most basic is taught to All Service Members (ASM), which is the absolute basics of hemorrhage control and to recognize more serious problems.

You are in the Combat Lifesaver (CLS) role. This teaches you more advanced care to treat the most common causes of death on the battlefield, and to recognize, prevent, and communicate with medical personnel the life-threatening complications of these injuries.

The Combat Medic/Corpsman role has much more advanced and invasive care requiring significantly more medical knowledge and skills.

Finally, the last role is for combat paramedics and advanced providers, to provide the most sophisticated care to keep our wounded warriors alive and get them to definitive care.

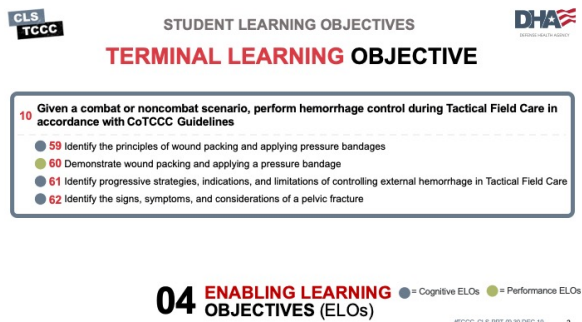
Your role as a combat lifesaver is to treat the most common causes of death on the battlefield, which are massive hemorrhage and airway/respiratory problems. In addition, you are given the skills to prevent complications and treat other associated but not immediately life-threatening injuries.



### SLIDE 3 – TLO/ELO

The TCCC-CLS course is built on a foundation of learning objectives. These objectives lay out the basic structure of the course and describe the knowledge and skills you are expected to acquire by the end of the course.

The module has **one Terminal Learning Objective**, or TLO. The TLO is supported by a series of Enabling Learning Objectives, or ELOs. This graphic shows how the ELOs are mapped to the TLOs. The blue dots are cognitive or knowledge learning objectives, and the green dots are performance objectives focused on skills.

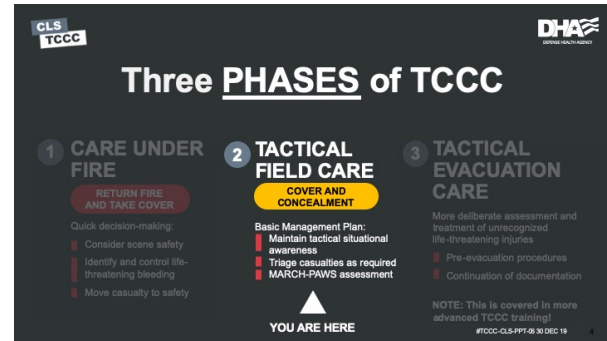


## SPEAKER NOTES

### SLIDE 4 – THREE PHASES OF TCCC

TCCC is organized into Phases of Care that start at the point of injury. These phases are relevant to combat and noncombat trauma scenarios:

1. **Care Under Fire or Care Under Threat** is the aid rendered at the trauma scene while there is still an active threat. Available medical equipment is limited to that carried by an individual or found in a nearby first aid kit. Massive bleeding is the only medical priority that requires your attention during this phase, as you are actively dealing with an ongoing threat in a potentially chaotic and dangerous situation.
2. **Tactical Field Care** is the care provided once the threat has been neutralized and/or the scene is safe or the casualty has moved/been moved out of the immediate threat situation. During this phase a rapid casualty assessment should be performed. Bleeding control should be assessed/reassessed, and airway/breathing issues addressed. Other injuries such as burns, fractures, eye trauma, and head injuries should now be identified and treated. Medical equipment is still limited. Time to arrival of medical personnel or evacuation may vary considerably, depending on the tactical situation, etc.
3. **Tactical Evacuation Care** is the care rendered during and once the casualty has been moved by an aircraft, vehicle, or other mode of transportation for evacuation to a higher level of care. Additional medical personnel and equipment are typically available in this phase of casualty care.



**Remember:** The goal of TCCC and the role of the CLS are to rapidly assess casualties to identify and treat potentially life-threatening injuries to keep them alive long enough to reach a higher level of medical care.

### SLIDE 5 – MARCH PAWS

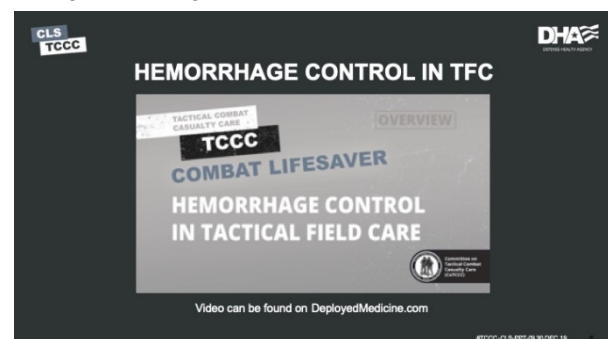
Hemorrhage control assessment and management in the Tactical Field Care phase falls under the “C,” for Circulation, in the MARCH PAWS sequence.



### SLIDE 6 – HEMORRHAGE CONTROL IN TFC (VIDEO)

Play video.

1. Unrecognized hemorrhage
2. Junctional areas
3. CoTCCC recommended Tourniquets
4. CoTCCC recommended Hemostatic dressings
5. Improvise Junctional Tourniquet
6. Check pulse(s)
7. Reassess
8. Pelvic Fracture(s)
9. Report findings



## SPEAKER NOTES

### SLIDE 7 – PELVIC FRACTURES

Another key injury to assess the casualty for in TFC is a **pelvic fracture**.

Pelvic fractures can be a cause of massive internal bleeding and impact circulation, which is the “C” in the MARCH PAWS sequence.

A 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 limb near amputations
- Pelvic deformities, penetrating injuries, or bruising near the pelvis
- Pelvic instability or crepitus, which is a 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, and you should notify medical personnel of the potential for a pelvic fracture as soon as possible.

CLS TCCC 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

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### SLIDE 8 - REASSESSMENT

Hemorrhage control in the Tactical Field Care (TFC) phase takes place after Massive Bleeding control that occurs in the Care Under Fire phase.

It is possible that it **did not occur**, and this may be the first opportunity to address massive bleeding as well, so there is significant urgency.

The **first step** is to reassess ALL PRIOR hemorrhage control interventions for effectiveness.

All tourniquets and hemostatic dressings that were applied and ensure they are tight and effective.

CLS TCCC HEMORRHAGE CONTROL REASSESSMENT

- Reassess **ALL PRIOR** and **CURRENT** hemostatic dressings applied for effectiveness
- Reassess **ALL PRIOR** and **CURRENT** tourniquets (TQs) applied and ensure they are tight and effective
- If you placed a tourniquet above a casualty's elbow, for instance, you should expect to **find no pulse** at the wrist below if the tourniquet was properly applied

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### SLIDE 9 – STRATEGIES AND LIMITATIONS

Early control of severe hemorrhage is critical.

In the Tactical Field Care phase, CoTCCC recommended tourniquets be applied directly to the skin **2–3 inches above the bleeding site**. This is *different* from the high and tight placement over clothing that may have occurred in the Care Under Fire phase.

Always remember that the casualty's hemorrhage control interventions must be **FREQUENTLY REASSESSED** to ensure continued hemorrhage control. This includes reassessments at frequent time intervals and any time the casualty is moved or there is a change in the casualty's status. Watch the casualty for signs of shock.

Your actions will help ensure bleeding control.

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

CLS TCCC HEMORRHAGE CONTROL STRATEGIES AND LIMITATIONS

**EARLY CONTROL OF SEVERE HEMORRHAGE IS CRITICAL**

- CoTCCC-recommended TQs 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!**

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### SLIDE 10 – WOUND PACKING and PRESSURE DRESSING

The proper technique for applying a hemostatic dressing with a pressure bandage is to **first identify the exact source of bleeding** and pack the wound.

**SPEAKER NOTES**

You should pack the wound with the hemostatic dressing while maintaining **CONSTANT** direct pressure at the source of bleeding.

After the wound is packed, you must hold direct pressure to the packing over the wound for **3 minutes**. **Do not** check for bleeding control during these 3 minutes.

**After 3 minutes**, if bleeding is controlled, you should secure the wound packing with a pressure 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. If there is no pressure bar, make sure to keep tension while wrapping the elastic bandage, which is best done with short pulls and tugs of the bandage as you wrap it around the wound.

**SLIDE 11 – WOUND PACKING**

While packing a wound, maintain constant, direct pressure at the source of bleeding.

Once the dressing is applied, hold direct pressure on the gauze over the wound for at least 3 minutes. Then, carefully observe for blood continuing to flow from under the gauze to determine if bleeding has been controlled. Once you are sure the bleeding has stopped, apply a pressure bandage over the hemostatic dressing.

If you placed a tourniquet above a casualty's elbow, for instance, you should expect to find no pulse at the wrist below that elbow if the tourniquet was properly applied, and there should be no continued bleeding from the wound.

Make sure there is no continued bleeding from any prior hemostatic dressings that were placed.

**SLIDE 12 - PRESSURE BANDAGE REASSESSMENT**

It is also necessary to reassess any previously applied pressure bandages.

**First**, make sure there is no continued bleeding from the wound.

Then, check for circulation **BELOW** the pressure bandage by feeling for the 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.

**CLS TCCC** HEMORRHAGE CONTROL **DHA**  
**WOUND PACKING and PRESSURE DRESSING**

- Identify the exact source of bleeding
- Pack the wound
- Apply direct pressure for **3 MINUTES**
- Secure the 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.

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**CLS TCCC** HEMORRHAGE CONTROL **DHA**  
**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 gauze)
- 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

**3 MIN**

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**CLS TCCC** HEMORRHAGE CONTROL **DHA**  
**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

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## SPEAKER NOTES

### SLIDE 13 – IF PRESSURE BANDAGE IS INEFFECTIVE

You must make sure the pressure bandage is still effective and bleeding is still controlled.

If the pressure bandage or hemostatic dressing is ineffective, **APPLY A TOURNIQUET 2–3 inches above the bleeding site**, if possible.

If unable to place a tourniquet and the pressure bandage is ineffective **AND/OR** blood soaked, **REPLACE** the pressure dressing with a new hemostatic dressing.

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

### SLIDE 14 – PRESSURE BANDAGE (VIDEO)

Play video

1. Proper application of Pressure Dressing
2. Sterile side on top of Hemostatic dressing
3. Wrap properly and secure
4. Assess circulation
5. Document treatment

### SLIDE 15 – SKILL STATION

At this time, we will break into skill stations to practice the following skills:

- Wound Packing with Hemostatic Dressing and Pressure Bandage

### SLIDE 16 – SUMMARY

You should now understand the need to reassess all hemorrhage control interventions that may have been applied previously.

You should also understand the need to replace or reapply any ineffective hemorrhage control intervention.

All of these interventions are designed to eliminate further bleeding and prevent the casualty from going into shock or worsening shock.

You should frequently reassess for shock by checking for a radial pulse and other signs of inadequate hemorrhage control.

Of course, if not already done, clearly mark **ALL** tourniquets with the time of tourniquet application and document all findings and treatment on the DD Form 1380 TCCC Casualty Card.

**CLS TCCC** HEMORRHAGE CONTROL **DHA**

#### IF THE PRESSURE BANDAGE IS INEFFECTIVE



- Make sure the bleeding is still controlled
- If the pressure bandage or hemostatic dressing is ineffective, **APPLY A TQ 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

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**CLS TCCC** **DHA**

### PRESSURE BANDAGE

TACTICAL COMBAT CASUALTY CARE HOW-TO  
**TCCC**  
COMBAT LIFESAVER  
**PRESSURE BANDAGE**

Video can be found on [DeployedMedicine.com](http://DeployedMedicine.com)

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**CLS TCCC** **DHA**

### SKILL STATION


Circulation/Hemorrhage Control (skills)

- Wound Packing With Hemostatic Dressing and Pressure Bandage




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**CLS TCCC** HEMORRHAGE CONTROL **DHA**

### SUMMARY



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

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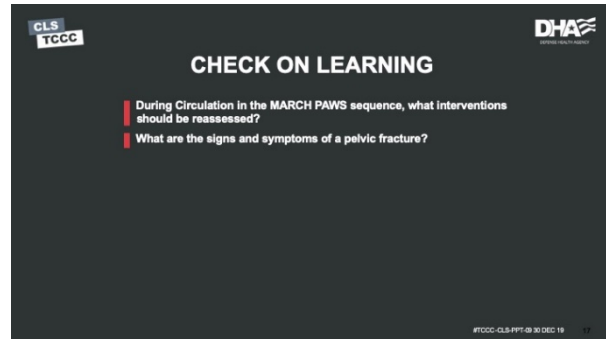
## SPEAKER NOTES

### SLIDE 17 – CHECK ON LEARNING

Ask questions of the learners, referring to key concepts from the module.

Now for a check on learning.

1. During Circulation in the MARCH PAWS sequence, what interventions should be reassessed?
  - Previously applied tourniquets and hemostatic dressings
2. What are the signs and symptoms of a pelvic fracture?
  - Severe blunt force or blast injury with one or more of the following:
    - o Pelvic pain
    - o Major lower limb amputation OR lower near amputations
    - o Deformities, penetrating injuries, bruising near the pelvis
    - o Pelvic instability or crepitus (crinkly, or grating feeling or sound under the skin)
    - o Unconsciousness or shock



### SLIDE 18 – QUESTIONS

