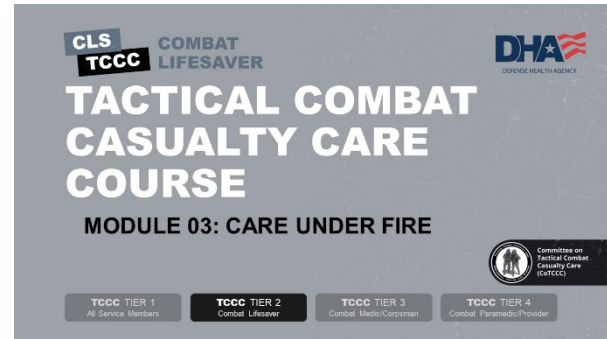


**SPEAKER NOTES**

**MODULE 03 – CARE UNDER FIRE**

**SLIDE 1 – TITLE SLIDE**



**SLIDE 2 – TCCC ROLES**

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

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 (CMC) role includes much more advanced and invasive care requiring significantly more medical knowledge and skills.

Finally, the last role, Combat Paramedic/Provider (CPP) 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 CLS is to treat the most common causes of death on the battlefield, which are massive hemorrhage and airway/respiratory problems. Also, you are given the skills to prevent complications and treat other associated but not immediately life-threatening injuries.



**SPEAKER NOTES**

**SLIDE 3 – TLO/ELO**

The Care Under Fire (CUF) module has five cognitive learning objectives and four performance learning objectives. The cognitive learning objectives are to:

1. Describe the role of fire superiority and threat containment and the impact of the tactical environment on Tactical Combat Casualty Care (TCCC)
2. Describe the actions required before engaging with a casualty to prevent harm or additional casualties in accordance with CoTCCC guidelines
3. Identify appropriate actions and priorities to treat and move casualties in CUF
4. Identify the importance of early application of limb tourniquets to control life-threatening bleeding
5. Describe the principles, advantages, and disadvantages of one-person drag/carry or two-person drag/carry in CUF

The four performance learning objectives are to:

1. Demonstrate the one-handed tourniquet application to self in CUF
2. Demonstrate the two-handed tourniquet application to a casualty in CUF
3. Demonstrate the one-person drag/carry of a casualty in CUF
4. Demonstrate the two-person drag/carry of a casualty in CUF

The initial priority of CUF is to return fire, suppress the enemy, and gain fire superiority. Treatment priorities while still under effective enemy fire/threat are addressing massive hemorrhage with tourniquets and moving the casualty to cover.

**STUDENT LEARNING OBJECTIVES**

**TERMINAL LEARNING OBJECTIVE**

**04 Given a combat or noncombat scenario, perform Care Under Fire in accordance with CoTCCC Guidelines**

- 14 Describe the role of fire superiority and threat containment and the impact of the tactical environment on TCCC.
- 15 Describe the actions required before engaging with a casualty to prevent harm or additional casualties in accordance with CoTCCC guidelines.
- 16 Identify appropriate actions and priorities to treat and move casualties in CUF.
- 17 Identify the importance of early application of limb tourniquets to control life-threatening bleeding.
- 18 Demonstrate one-handed tourniquet application to self in CUF.
- 19 Demonstrate two-handed tourniquet application to a casualty in CUF.
- 20 Describe the principles, advantages, and disadvantages of one-person drag/carry or two-person drag/carry in CUF.
- 21 Demonstrate the one-person drags and carries of a casualty in CUF.
- 22 Demonstrate two-person drags and carries of a casualty in CUF.

**9 ENABLING LEARNING OBJECTIVES (ELOs)**

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**SLIDE 4 – THREE PHASES OF TCCC**

CUF is the first of three phases of TCCC. It is the lifesaving care provided while still under active enemy fire or threat. Actions are prioritized to suppress enemy fire, gain fire superiority to prevent further harm or additional casualties, identify and control life-threatening bleeding, and move the casualty to cover.

**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
  - 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!  
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**YOU ARE HERE**

**SPEAKER NOTES**

**SLIDE 5 – PHASE 1: CARE UNDER FIRE**

CUF is the care rendered by the first responder/CLS at the scene of the injury while still under effective hostile fire. Available medical equipment is limited to that carried by the individual responder or casualty (Joint First Aid Kit (JFAK) or a CLS bag). Remember: Always use the casualty’s JFAK first.

The critical feature of CUF is that the casualty and responder/CLS are still under effective hostile fire.

The mission does not stop just because there is a casualty. Most battlefield casualty scenarios involve making medical and tactical decisions rapidly. In the combat environment there is no “time-out” when casualties occur. Good medicine can sometimes be bad tactics; doing the RIGHT thing at the WRONG time can get you and your teammates killed or cause the mission to fail.

**Remember: Do not become a casualty! Assess the situation and the risk. Suppress enemy fire and gain fire superiority first. Communicate with and direct the casualty to return fire, move to cover, apply self-aid, and develop a plan before moving to care for a casualty under fire.**

**CLS TCCC**

CARE UNDER FIRE

**PHASE 1: CARE UNDER FIRE**

- RETURN FIRE AND TAKE COVER**  
Never attempt to rescue a casualty until hostile fire is suppressed  
Using available resources, ensure scene safety
- DIRECT CASUALTY TO REMAIN ENGAGED**
- APPLY SELF-AID AND MOVE TO COVER (if able)**
- GAIN FIRE SUPERIORITY**
- MOVE TO CASUALTY (if casualty is unable to move to cover)**

**IMPORTANT CONSIDERATIONS:**

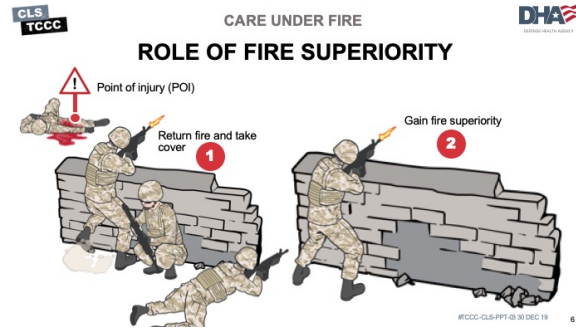
- Order of actions will be dictated by the situation
- A casualty may be able to perform self-aid
- Constantly **ASSESS** risks and make a plan before moving a casualty

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**SPEAKER NOTES**

**SLIDE 6 – ROLE OF FIRE SUPERIORITY**

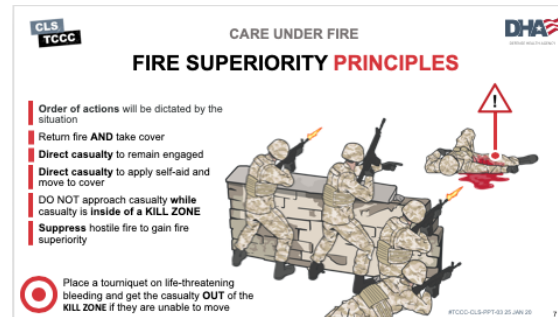
Remember to return fire and take cover. **The best medicine on the battlefield is fire superiority!**



**SLIDE 7 – FIRE SUPERIORITY PRINCIPLES**

**Order of initial actions will be dictated by the tactical situation.**

Little time is available to provide casualty care while under effective enemy fire. Suppressing hostile fire and gaining fire superiority should be the priorities to minimize the risk of injury to other personnel and minimize additional injury to the casualty while completing the mission. Personnel may need to assist in returning fire instead of stopping to care for casualties (this includes the casualty if they are still able to fight). Wounded service members who are exposed to enemy fire should be directed to continue to return fire, move as quickly as possible to any nearby cover, and perform self-aid if able.



**SLIDE 8 – CASUALTY SELF-AID**

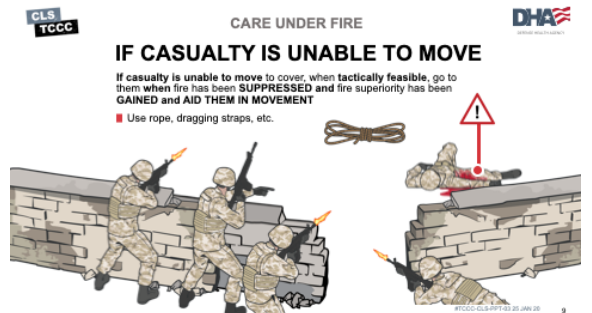
If the casualty is responsive and able, the first responder/CLS should direct the casualty to return fire, apply self-aid (tourniquet), re-engage, and move to cover (if possible).



**SLIDE 9 – IF CASUALTY IS UNABLE TO MOVE**

If a casualty is responsive but can't move, a rescue plan should be devised and executed if tactically feasible.

**Do not put two people at risk if it can be avoided.** If cover is not available or the wounded Service member cannot move to cover, they should lie flat and motionless.



**SPEAKER NOTES**

**SLIDE 10 – PHASE 1: CARE UNDER FIRE**

If the casualty cannot apply self-aid or move to cover, devise and execute a rescue plan to reach the casualty. Apply a tourniquet “high and tight” as quickly as possible to stop bleeding (within 1 minute, ideally) and move the casualty to cover. A casualty can bleed to death in as little as 3 minutes. The faster you apply a tourniquet, the better the outcome and the less chance of shock and death.

**CARE UNDER FIRE**  
**PHASE 1: CARE UNDER FIRE**

**APPLY TOURNIQUET TO CONTROL LIFE-THREATENING BLEEDING**  
For life-threatening bleeding, place a tourniquet (TO) “high and tight” above the wound

**CASUALTY MOVEMENT**  
Drag or carry based on tactical situation

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**SLIDE 11 – MASSIVE BLEEDING IN CARE UNDER FIRE**

Remember: If you can do only ONE thing for the casualty, it should be to identify and stop life-threatening bleeding, and keep them from bleeding to death.

**MASSIVE BLEEDING IN CARE UNDER FIRE**

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**SLIDE 12 – CARE UNDER FIRE OVERVIEW – BLEEDING CONTROL (VIDEO)**

Play video.

**CARE UNDER FIRE OVERVIEW**

TACTICAL COMBAT CASUALTY CARE  
**TCCC**  
COMBAT LIFESAVER  
CARE UNDER FIRE BLEEDING CONTROL

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

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**SLIDE 13 – IDENTIFY LIFE-THREATENING BLEEDING**

The following are examples of when bleeding is considered life-threatening: 1) there is a traumatic amputation of an arm or leg; 2) there is pulsing or steady bleeding from the wound; 3) blood is pooling on the ground; 4) the overlying clothes are soaked with blood; 5) bandages or makeshift bandages used to cover the wound are ineffective and are steadily

**CARE UNDER FIRE**  
**IDENTIFY LIFE-THREATENING BLEEDING**

- Bright red blood is pooling on the ground
- The overlying clothes are soaked with blood
- There is a traumatic AMPUTATION of an arm or leg
- There is pulsatile (pulsing) or steady bleeding from the wound

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## SPEAKER NOTES

becoming soaked with blood; 6) there was prior bleeding, and the patient is now in shock (unconscious, confused, pale). If you see any of these examples, it means that a tourniquet is needed to stop life-threatening bleeding.

You may not really know if hemorrhage is life-threatening until the Tactical Field Care phase when the wound can be exposed and evaluated. If a life-threatening hemorrhage is suspected, you should treat it immediately.

Remember during CUF the only medical intervention is applying a tourniquet to stop life-threatening bleeding from an extremity injury. Other wounds (neck, armpit, groin, or abdomen) are not treated during CUF. If the casualty is able, direct them to apply pressure to the wounds as self-aid. Airway and other issues are also not treated until the TFC phase.

Notes about the tourniquet:

- Constricting band placed around an arm or leg to stop bleeding
- Typically, 2 inches wide
  - Width reduces tissue damage
- Quick to apply and can stop life-threatening extremity bleeding
- High and tight during CUF
- 2–3 inches above the wound during TFC
- Do not document the tourniquet time during CUF; document during TFC

### SLIDE 14 – TIME TO BLEED OUT

The **number one medical priority** in CUF is early control of severe bleeding. Extremity hemorrhage is the most frequent cause of preventable battlefield deaths. Over 2,500 deaths occurred in Vietnam secondary to hemorrhage from extremity wounds. A large number of deaths in Iraq and Afghanistan were also seen from hemorrhage. Injury to a major vessel can quickly lead to shock and death. Only life-threatening bleeding warrants intervention during Care Under Fire. Casualties with injuries to large central blood vessels (like the femoral artery in the groin, the axillary artery in the arm, or the carotid artery in the neck) can bleed to death in **as little as 3 minutes**.

**Play video of Care Under Fire Bleeding Video.**

**QUESTION**  
**TIME TO BLEED OUT**

How long does it take to **bleed to death** from a **major artery injury**?

Casualties with such an injury can bleed to death in **as little as 3 MIN**.

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### SLIDE 15 – KNOW YOUR ACCESS TO A TOURNIQUET

All personnel on combat missions should have a CoTCCC-recommended tourniquet readily available (standard location on their battle gear) and be trained in its use. Casualties should be able to easily and quickly reach and apply their **own** tourniquet. Tourniquets should **NEVER** be at the bottom of the pack. Always use the casualty's tourniquet (JFAK) first.

**CARE UNDER FIRE**  
**KNOW YOUR ACCESS TO A TOURNIQUET**

Have TQ available for **self-application** should you need one, **QUICK ACCESS IS KEY!**

- **DON'T** leave your TQ at the bottom of your pack!
- **CASUALTY'S JFAK FIRST**
  - When helping a buddy, **NEVER USE YOUR OWN TQ** before the casualty's
  - Look for the TQ in the **casualty's JFAK**
  - If the casualty does **NOT** have a TQ available, **then** use the TQ from the CLS kit or the next available one

**PERSONAL Joint First Aid Kit (JFAK)**

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**SPEAKER NOTES**

**SLIDE 16 – ONE-HANDED TOURNIQUET SELF-APPLICATION**

Casualty may need to apply one-handed tourniquet to an upper extremity when applying self-aid. One-handed tourniquets are used to apply self-aid for bleeding from an injury to the upper arm or forearm.

**CARE UNDER FIRE**

**ONE-HANDED TOURNIQUET SELF-APPLICATION**

**One-Handed Application**  
The one-handed application is normally used to apply a CoTCCC-recommended windlass or ratchet TQ to the **upper extremities** (upper arm or forearm)

**WINDLASS AND RATCHET TQs**

- A windlass or ratchet TQ is the TQ of choice; it is effective and can be applied quickly.
- Use the windlass or ratchet TQ from the warfighter JFAK

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**SLIDE 17 – ONE-HANDED WINDLASS TOURNIQUET APPLICATION (VIDEO)**

Play the video.

**CARE UNDER FIRE**

**ONE-HANDED WINDLASS TOURNIQUET APPLICATION**

TACTICAL COMBAT CASUALTY CARE  
**TCCC**  
COMBAT LIFESAVER  
**ONE-HANDED WINDLASS TOURNIQUET**  
(CARE UNDER FIRE)

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

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**SLIDE 18 – ONE-HANDED RATCHET TOURNIQUET APPLICATION (VIDEO)**

Play the video.

**CARE UNDER FIRE**

**ONE-HANDED RATCHET TOURNIQUET APPLICATION**

TACTICAL COMBAT CASUALTY CARE  
**TCCC**  
COMBAT LIFESAVER  
**ONE-HANDED RATCHET TOURNIQUET**  
(CARE UNDER FIRE)

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

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**SLIDE 19 – ONE-HANDED TOURNIQUET APPLICATION CRITICAL POINTS**

All personnel on combat missions should have a CoTCCC-recommended tourniquet readily available (standard location on their battle gear) and be trained in its use. Casualties should be able to easily and quickly reach and apply their **own** tourniquet.

**CARE UNDER FIRE**

**ONE-HANDED TOURNIQUET APPLICATION CRITICAL POINTS**

- TQ used to control massive or severe hemorrhage (bleeding) of an extremity (arms and legs)
- TQs are **effective** and can be **applied quickly**
- TQs are the most important life-saving item in the JFAK and should be kept easily accessible
- When helping a buddy, **NEVER USE YOUR OWN** tourniquet before the casualty's

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**SLIDE 20 – BUDDY AID IF CASUALTY IS UNRESPONSIVE OR UNABLE TO MOVE**

If a casualty is unresponsive and/or unable move, a rescue plan should be devised and executed if tactically feasible. Do not put two people at risk if it can be avoided. If cover is not available or the wounded Service member cannot move to cover, they should lie flat and motionless. Quickly perform a blood sweep (looking for major bleeding). Apply a hasty tourniquet high and tight on the injured extremity and get to cover as quickly as possible. Be sure to use equipment (tourniquet) in the casualty's JFAK and not your own. Do not put a tourniquet directly over the knee or elbow or over a holster or cargo pocket that contains bulky items.

**CLS TCCC** CARE UNDER FIRE **BUDDY AID** **DHA**

**IF CASUALTY IS UNRESPONSIVE OR UNABLE TO MOVE**

Approach casualty and conduct visual blood sweep (looking for major bleeding)

If bleeding is visualized, apply a hasty (High and Tight) TQ using a two-handed method

**IMPORTANT CONSIDERATION:**  
Be sure to use equipment (TQ) in the casualty's JFAK and not your own

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**SLIDE 21 – TWO-HANDED RATCHET TOURNIQUET APPLICATION (VIDEO)**

*Play the video.*

**CLS TCCC** CARE UNDER FIRE **DHA**

**TWO-HANDED RATCHET TOURNIQUET APPLICATION**

TACTICAL COMBAT CASUALTY CARE **TCCC** HOW-TO

**COMBAT LIFESAVER**

**TWO-HANDED RATCHET TOURNIQUET**

(CARE UNDER FIRE)

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

#TCCC-CLS-PPT-01 30 DEC 19 21

**SLIDE 22 – TWO-HANDED (WINDLASS) TOURNIQUET APPLICATION (VIDEO)**

*Play the video.*

**CLS TCCC** CARE UNDER FIRE **DHA**

**TWO-HANDED WINDLASS TOURNIQUET APPLICATION**

TACTICAL COMBAT CASUALTY CARE **TCCC** HOW-TO

**COMBAT LIFESAVER**

**TWO-HANDED WINDLASS TOURNIQUET**

(CARE UNDER FIRE)

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

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## SLIDE 23 – SKILL STATION

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

- One-Handed (Windlass) TQ Application in CUF
- One-Handed (Ratchet) TQ Application in CUF
- Two-Handed (Ratchet) TQ Application in CUF
- Two-Handed (Windlass) TQ Application in CUF

**CLS TCCC** CARE UNDER FIRE **DHA**  
**SKILL STATION**

CUF Tourniquet (skills)

- One-Handed (Windlass) TQ Application in CUF
- One-Handed (Ratchet) TQ Application in CUF
- Two-Handed (Ratchet) TQ Application in CUF
- Two-Handed (Windlass) TQ Application in CUF

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## SLIDE 24 – EXTRACTION OF CASUALTIES

Follow unit standard operating procedures for removing/extracting casualties from vehicles.

If the casualty is on fire, put out the fire, address life-threatening bleeding with a tourniquet if indicated, and move to cover as quickly as possible.

**CLS TCCC** TACTICAL FIELD CARE **DHA**  
**EXTRACTION OF CASUALTIES**

Casualty to be extracted from vehicles and buildings per unit Standard Operating Procedure (SOP)

If casualties are on fire, put out the fire **IMMEDIATELY**

Move casualty to relative safety following your SOP

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## SLIDE 25 – CRITICAL OBJECTIVES FOR THE ONE- OR TWO-PERSON DRAG/CARRY

**Remember:** Once a tourniquet has been applied, the priority is to get the casualty to the nearest cover and out of effective enemy fire/threat.

Carries and drags will enable the first responder/CLS to do this as quickly as possible without causing further harm to the casualty.

**CLS TCCC** **DHA**  
**CRITICAL OBJECTIVES FOR THE ONE- OR TWO-PERSON DRAG/CARRY**

- Once bleeding is controlled, move the casualty to cover using a one- or two-person drag/carry
- At the point of injury you must move your casualty to the closest position of cover
- If you must move a casualty under fire, then quickly develop a casualty movement rescue plan
- When moving casualties, spinal injuries are not to be a concern during Care Under Fire movements

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## SLIDE 26 – ONE-PERSON DRAG/CARRY

A variety of effective carries can be used depending on the casualty's level of consciousness, enemy threat level, terrain, etc.

Here are some examples of the one-person drag/carry: support carry (for a conscious casualty), neck drag (helps limit exposure from enemy fire based on low crawl of rescuer), kit/arm drag (rescuer pulls casualty backwards to safety), and cradle-drop, which allows rescuer to move the casualty short distances.

**CLS TCCC** DRAG/CARRY **DHA**  
**ONE-PERSON DRAG/CARRY**

- SUPPORT CARRY** should be used for a conscious casualty only
- NECK DRAG** also limits the casualty and rescuer from exposure to enemy fire
- KIT OR ARM DRAG** Some body armor is equipped with a drag handle; therefore, no additional equipment is required
- CRADLE-DROP DRAG** is effective in moving a casualty up or down the stairs, steps, or short distances

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## SLIDE 27 – ONE-PERSON CASUALTY DRAG/CARRY (VIDEO)

Play the video.



## SLIDE 28 – TWO-PERSON DRAG/CARRY

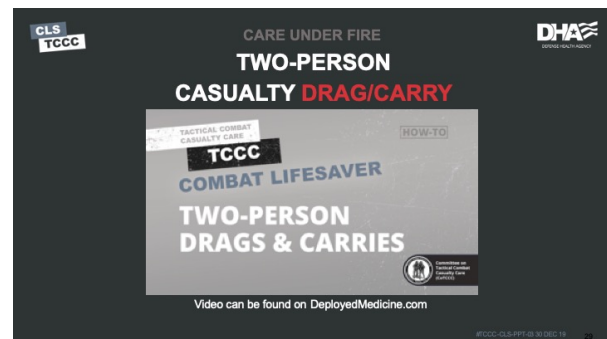
A variety of effective carries can be used, depending on the casualty's level of consciousness, enemy threat level, terrain, etc.

Some examples of the two-person drag/carry include: two-man supporting carry (casualty is carried between two rescuers), kit/arm (two rescuers drag the casualty by their drag handle), and fore/aft (casualty is carried between two rescuers moving forward in unison).



## SLIDE 29 – TWO-PERSON DRAG/CARRY (VIDEO)

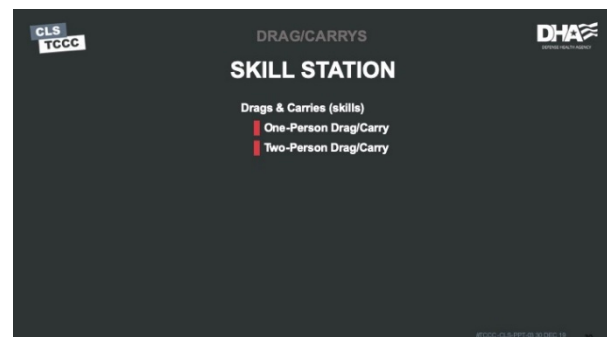
Play the video.



## SLIDE 30 – SKILL STATION

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

- One-Person Drag/Carry
- Two-Person Drag/Carry



## SLIDE 31 – SUMMARY

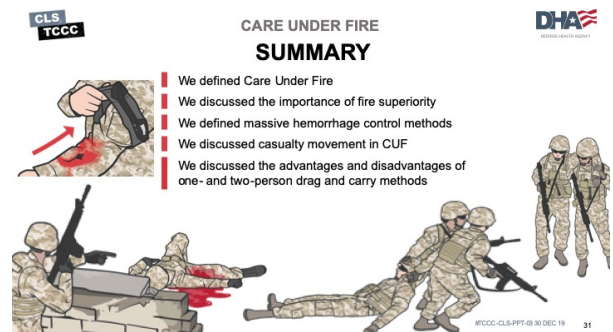
Care Under Fire is the care rendered by the first responder/CLS at the scene of the injury while still under effective hostile fire.

Remember to return fire and take cover. **The best medicine on the battlefield is fire superiority!**

If you can do only **ONE thing for the casualty**, identify and stop life-threatening bleeding, and keep them from bleeding to death by using a CoTCCC-recommended tourniquet.

Once a tourniquet has been applied, the priority is to get the casualty to the nearest cover and out of effective enemy fire/threat.

Drag/carry will enable the first responder/CLS to do this as quickly as possible without causing further harm to the casualty.

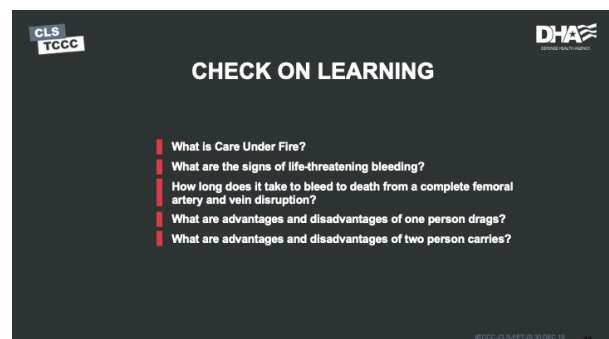


## SLIDE 32 – CHECK ON LEARNING

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

Now for a check on learning.

- 1) What is Care Under Fire?
  - Care Under Fire is the care given by the first responder at the scene of the injury while they and the casualty are still under effective hostile fire or near the threat. Available medical equipment is limited to that carried in the individual Service member's JFAK.
- 2) What are the signs of life-threatening bleeding?
  - Bright red blood is pooling on the ground
  - The overlying clothes are soaked with blood
  - There is a traumatic AMPUTATION of an arm or leg
  - There is pulsatile (pulsing) or steady bleeding from the wound
- 3) How long does it take to bleed to death from a complete femoral artery and vein disruption?
  - 3 minutes
- 4) What are the advantages and disadvantages of a one-person drag?
  - **Advantages:** No equipment required and only one rescuer is exposed to enemy fire.
  - **Disadvantages:** Relatively slow to move the casualty; does not allow optimal body position for dragging the casualty; can be tiring for the first responder if the patient is heavy or wearing a lot of gear.
- 5) What are the advantages and disadvantages of a two-person carry?
  - **Advantages:** May be useful in situations where drags do not work well; less painful for the casualty than dragging; quicker than most one-person carries.
  - **Disadvantages:** Causes the rescuers to have a higher silhouette than most drags, exposing them to possible hostile fire; hard to accomplish with the rescuer's and/or the casualty's equipment being worn.





# SPEAKER NOTES

## SLIDE 33 – QUESTIONS

