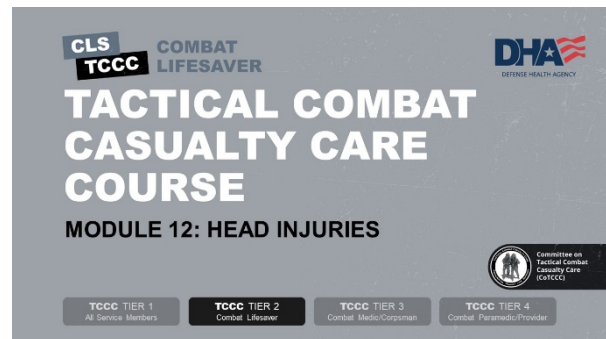


MODULE 12 – HEAD INJURIES

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.



SLIDE 3 – TLO/ELO

The head injuries model has **three cognitive learning objectives**. These learning objectives are to identify the external forces that can cause a head injury, identify the signs and symptoms of a head injury, and identify the critical observations that should be reported to medical personnel for trauma casualties with a suspected head injury, in accordance with the Military Acute Concussive Evaluation 2.

The critical aspects are to be able to recognize whether a head injury has possibly occurred, know what signs or symptoms to look for, and then collect key information that will help medical personnel evaluate and treat a casualty with a head injury.

CLS TCCC STUDENT LEARNING OBJECTIVES

TERMINAL LEARNING OBJECTIVE

13 Identify a head injury in accordance with DoD 6490.11, Change 1, 1 June 2018

- 68 Identify external forces that can cause a head injury (DoD 6490.11 enclosure 3 Section 1).
- 69 Identify signs and symptoms of a head injury (DoD 6490.11, enclosure 3 Figure (ED checked)).
- 70 Identify the critical observations that should be reported to medical personnel for trauma casualties with a suspected head injury, in accordance with the Military Acute Concussive Evaluation 2 (MACE 2).

3 ENABLING LEARNING OBJECTIVES (ELOs) Cognitive ELOs Performance ELOs

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SLIDE 4 – THREE PHASES OF TCCC

Remember, you are now in the Tactical Field Care phase of care, and so the focus has shifted from immediate life-threatening hemorrhage control while still under enemy fire in the Care Under Fire phase, to the reassessment of all previous interventions, followed by the prevention and treatment of other injuries and complications such as head injuries.

CLS TCCC TACTICAL FIELD CARE

Three PHASES of TCCC

- CARE UNDER FIRE**
RETURN FIRE AND TAKE COVER
Quick decision-making
Consider scene safety
Identify and control life-threatening bleeding
Move casualty to safety
- TACTICAL FIELD CARE**
COVER AND CONCEALMENT
Basic Management Plan:
Maintain tactical situational awareness
Triage casualties as required
MARCH-PAWS assessment
YOU ARE HERE
- 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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SLIDE 5 – MARCH PAWS

Head injuries are the “H” in the MARCH PAWS sequence as head Injuries.

CLS TCCC TACTICAL FIELD CARE

MARCH PAWS

| LIFE-THREATENING | AFTER LIFE-THREATENING |
|---------------------------------------|------------------------|
| M MASSIVE BLEEDING #1 Priority | P PAIN |
| A AIRWAY | A ANTIBIOTICS |
| R RESPIRATION (Breathing) | W WOUNDS |
| C CIRCULATION | S SPLINTING |
| H HYPOTHERMIA / HEAD INJURIES | |

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SLIDE 6 – POTENTIAL MECHANISMS OF HEAD INJURY

Head injury is trauma to the **SCALP, SKULL, and/or BRAIN**.

Head injury can be caused by:

- Involvement in a vehicle **blast event, collision, or rollover**

CLS TCCC HEAD INJURIES

POTENTIAL MECHANISMS OF HEAD INJURY

Head injury is trauma to the **SCALP, SKULL, and/or BRAIN**

- Involvement in a vehicle **blast event, collision, or rollover**
- Presence within **50 METERS** of a **blast (inside or outside)**
- A direct blow to the head or witnessed loss of consciousness
- Exposure to **more than one blast event** (the Service member's commander will direct a **medical evaluation**)

OTHER EXTERNAL FORCES MAY ALSO LEAD TO HEAD INJURIES

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- Presence within **50 METERS** of a blast (inside or outside)
- A direct blow to the head or a witnessed loss of consciousness
- Exposure to **more than one blast event**. In these cases, the Service member's commander will direct a medical evaluation if deemed necessary.

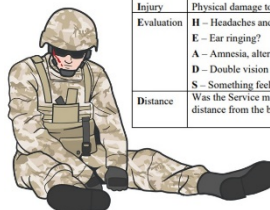
Other external forces may also lead to head injuries.

SIGNS AND SYMPTOMS OF HEAD INJURY

IED Checklist

| | | |
|------------|---|----------------|
| Injury | Physical damage to the body or body part of a Service member? | (Yes/No) |
| Evaluation | H – Headaches and/or vomiting? | (Yes/No) |
| | E – Ear ringing? | (Yes/No) |
| | A – Amnesia, altered consciousness, and/or loss of consciousness? | (Yes/No) |
| | D – Double vision and/or dizziness? | (Yes/No) |
| | S – Something feels wrong or is not right? | (Yes/No) |
| Distance | Was the Service member within 50 meters of the blast? Record the distance from the blast. | Not Applicable |

DoDI 6490.11 (section 3, para 2.a)



SLIDE 7 – SIGNS AND SYMPTOMS OF HEAD INJURY

The IED checklist is an important tool for gathering information and identifying signs and symptoms of a head injury.

I stands for **Injury**, and refers to physical damage to the body or body part of a service member.

E stands for **Evaluation**, and includes the acronym HEADS, which asks if the casualty has any of the following:

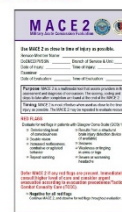
- H** – Headaches and/or vomiting?
- E** – Ear ringing?
- A** – Amnesia, altered consciousness, and/or loss of consciousness?
- D** – Double vision and/or dizziness?
- S** – Something feels wrong or is not right?

D stands for **Distance**, and asks whether the service member was within 50 meters of the blast. It is also important to record the approximate distance from the blast.

SIGNS AND SYMPTOMS REQUIRING MACE 2 EVALUATION BY MEDICAL PERSONNEL

Evaluations are **most effective** when done **as soon as possible** after the injury. Traumatic brain injury (TBI) is likely if the casualty shows signs of **ANY** of the following:

- Deteriorating level of consciousness
- Double vision
- Increased restlessness; combative or agitated behavior
- Repeat vomiting
- Results from a structural brain injury detection device (if available)
- Seizures
- Weakness or tingling in arms or legs
- Severe or worsening headache



SLIDE 8 – SIGNS AND SYMPTOMS THAT REQUIRE MACE 2 EVALUATION BY MEDICAL PERSONNEL

It is important to identify the critical observations that should be reported to medical personnel for trauma casualties with a suspected head injury, in accordance with the Military Acute Concussive Evaluation 2 (MACE 2).

Evaluations are most effective when done as soon as possible after the injury. Traumatic brain injury (TBI) is likely if the casualty shows signs of **ANY** of the following:

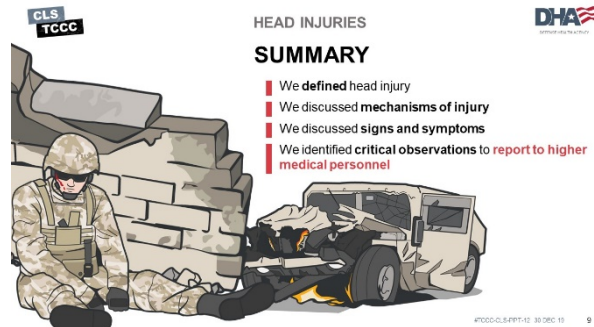
- A deteriorating level of consciousness
- Double vision
- Increased restlessness; combative or agitated behavior
- Repeated vomiting
- Results from a structural brain injury detection device (if available)

- Seizures
- Weakness or tingling in the arms or legs
- Severe or worsening headache

If any of these signs or symptoms are present, report them immediately upon arrival of medical personnel.

SLIDE 9 – SUMMARY

In summary, you should now be able to define what constitutes a head injury, understand its mechanisms of injury, know how to use the IED checklist to identify the signs and symptoms of head injury, and be able to identify the critical observations that require immediate reporting to higher medical personnel.

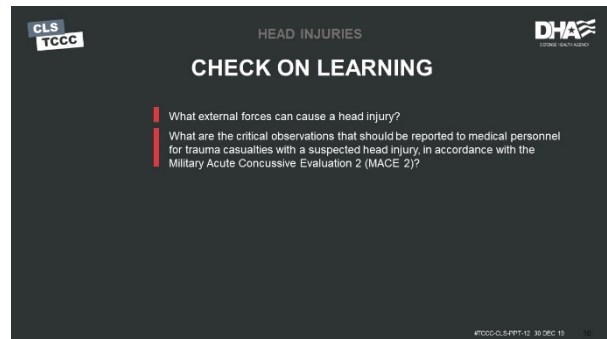


SLIDE 10 – CHECK ON LEARNING

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

Now for a check on learning.

1. What external forces can cause a head injury?
 - Involvement in a vehicle blast event, collision, or rollover
 - Presence within 50 METERS of a blast (inside or outside)
 - A direct blow to the head or witnessed loss of consciousness
 - Exposure to more than one blast event (the Service member's commander will direct a medical evaluation)
2. What are the critical observations that should be reported to medical personnel for trauma casualties with a suspected head injury, in accordance with the Military Acute Concussive Evaluation 2 (MACE 2)?
 - Deteriorating level of consciousness
 - Double vision
 - Increased restlessness; combative or agitated behavior
 - Repeat vomiting
 - Results from a structural brain injury detection device (if available)
 - Seizures
 - Weakness or tingling in arms or legs
 - Severe or worsening headache



SLIDE 11 – QUESTIONS

