

CLS
TCCC

COMBAT
LIFESAVER



TACTICAL COMBAT CASUALTY CARE COURSE

MODULE 12: HEAD INJURIES



Committee on
Tactical Combat
Casualty Care
(CoTCCC)

TCCC TIER 1
All Service Members

TCCC TIER 2
Combat Lifesaver

TCCC TIER 3
Medic/Corpsman

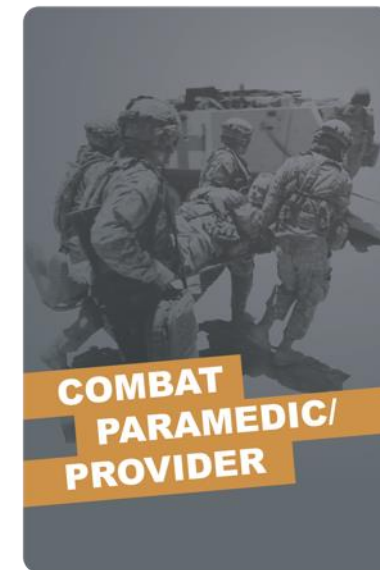
TCCC TIER 4
Combat Paramedic/Provider

ROLE 1 CARE

NONMEDICAL PERSONNEL



MEDICAL PERSONNEL



◀ **YOU ARE HERE**

STANDARDIZED JOINT CURRICULUM

TERMINAL LEARNING OBJECTIVE

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

- 72 Identify external forces that can cause a head injury (DoDI 6490.11 enclosure 3 Section 1).
- 73 Identify signs and symptoms of a head injury (DoDI 6490.11, enclosure 3 Figure IED checklist).
- 74 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).

03 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!



YOU ARE HERE

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

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**)

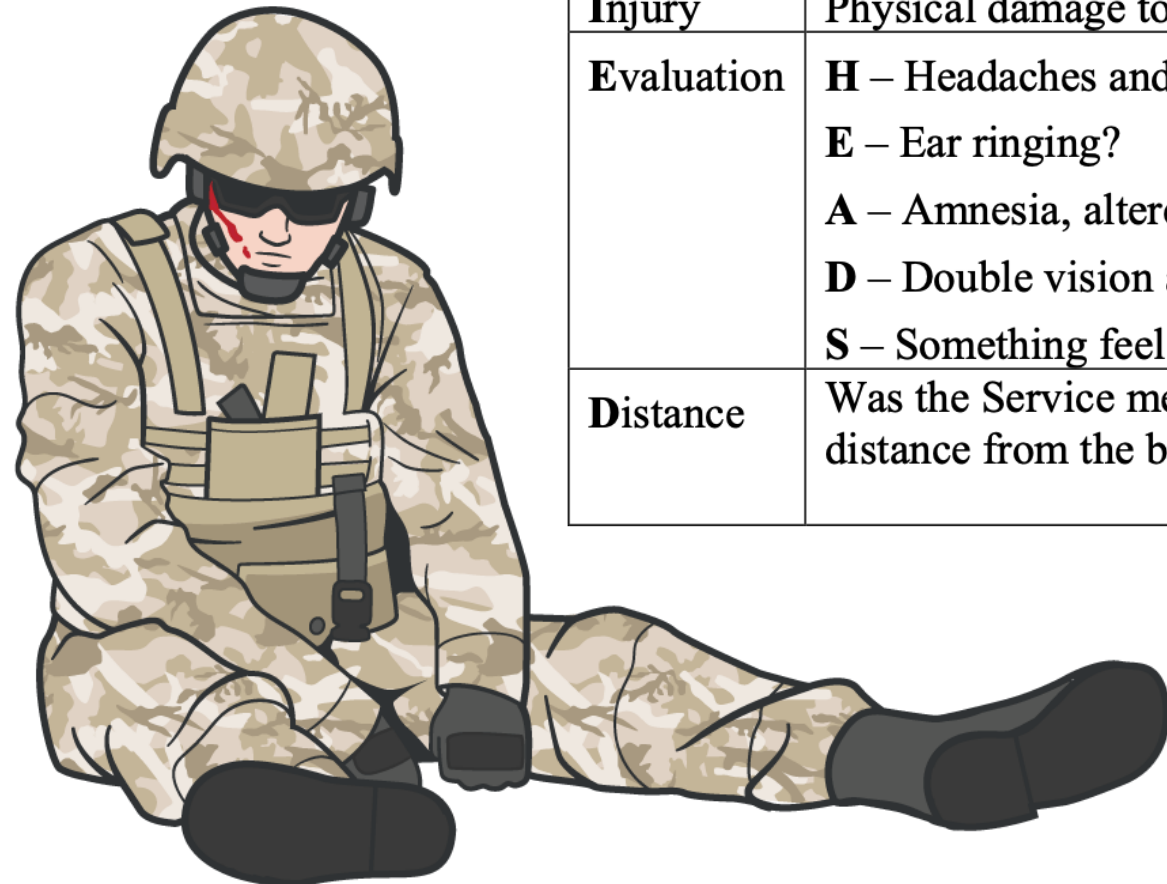
OTHER EXTERNAL FORCES MAY ALSO LEAD TO HEAD INJURIES

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.	(Yes/No) Not Applicable

DoDI 6490.11 (section 3, para 2.a)



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

MACE 2

Military Acute Concussion Evaluation

Use MACE 2 as close to time of injury as possible.

Service Member Name: _____

DoD/EDIP/SSN: _____ Branch of Service & Unit: _____

Date of Injury: _____ Time of Injury: _____

Examiner: _____

Date of Evaluation: _____ Time of Evaluation: _____

Purpose: MACE 2 is a multimodal tool that assists providers in the assessment and diagnosis of concussion. The scoring, coding and steps to take after completion are found at the end of the MACE 2.

Timing: MACE 2 is most effective when used as close to the time of injury as possible. The MACE 2 may be repeated to evaluate recovery.

RED FLAGS

Evaluate for red flags in patients with Glasgow Coma Scale (GCS) 13-15.

<input type="checkbox"/> Deteriorating level of consciousness	<input type="checkbox"/> Results from a structural brain injury detection device (if available)
<input type="checkbox"/> Double vision	<input type="checkbox"/> Seizures
<input type="checkbox"/> Increased restlessness, combative or agitated behavior	<input type="checkbox"/> Weakness or tingling in arms or legs
<input type="checkbox"/> Repeat vomiting	<input type="checkbox"/> Severe or worsening headache

Defer MACE 2 if any red flags are present. Immediately consult higher level of care and consider urgent evacuation according to evacuation precedence/Tactical Combat Casualty Care (TCCC).

Negative for all red flags
Continue MACE 2, and observe for red flags throughout evaluation.

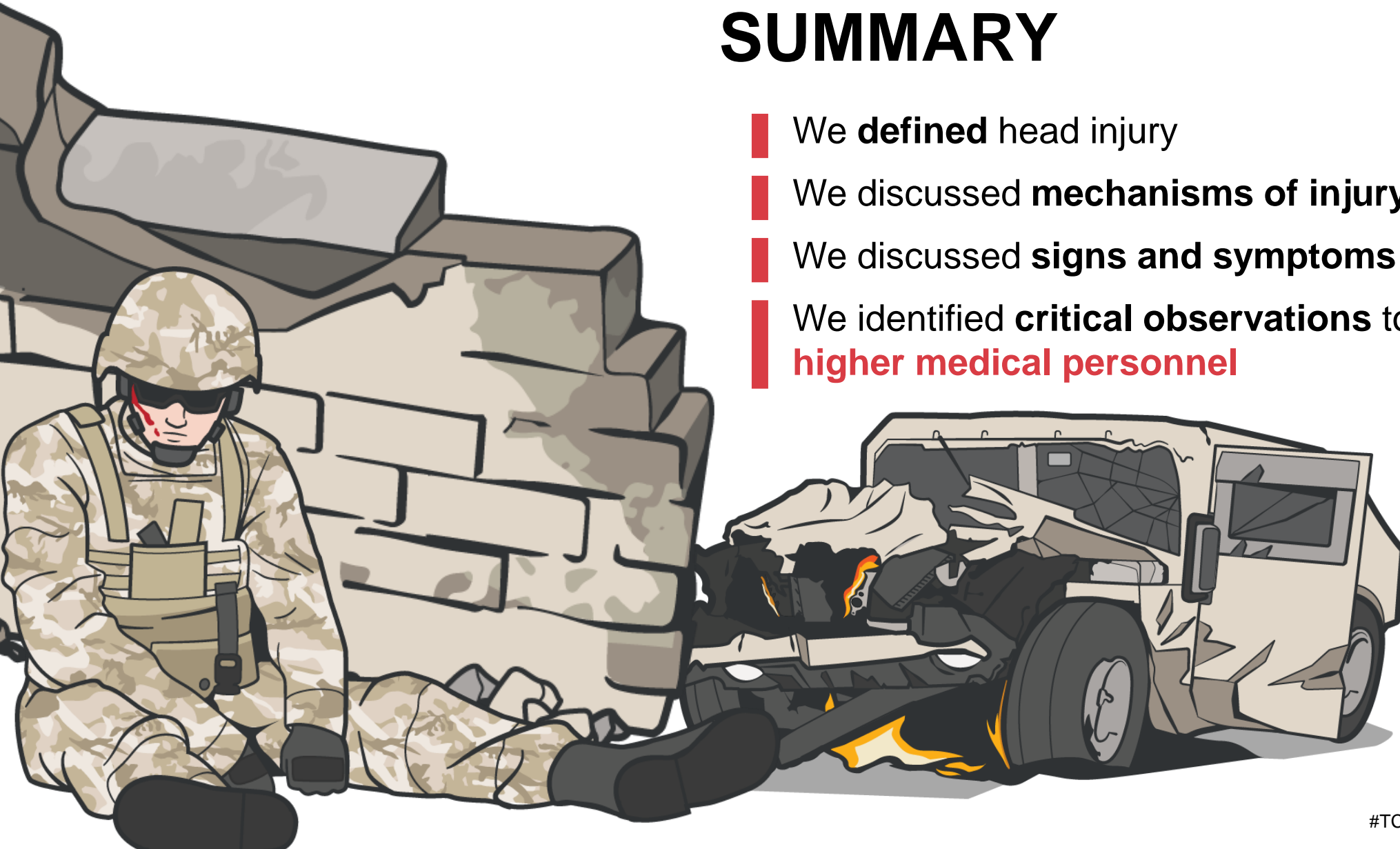
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*Military Acute Concussion Evaluation 2

HEAD INJURIES

SUMMARY

- We **defined** head injury
- We discussed **mechanisms of injury**
- We discussed **signs and symptoms**
- We identified **critical observations** to **report to higher medical personnel**



CHECK ON LEARNING

- What external forces can cause a head injury?
- What are the critical observations that should be reported to medical personnel for trauma casualties with a suspected head injury, in accordance with the MACE 2?

ANY QUESTIONS?