

# TACTICAL COMBAT CASUALTY CARE COURSE

## MODULE 10: SHOCK RECOGNITION



Committee on  
Tactical Combat  
Casualty Care  
(CoTCCC)

**TCCC** TIER 1  
All Service Members

**TCCC** TIER 2  
Combat Lifesaver

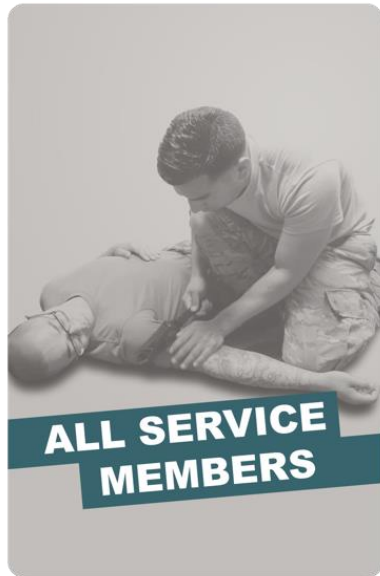
**TCCC** TIER 3  
Medic/Corpsman

**TCCC** TIER 4  
Combat Paramedic/Provider

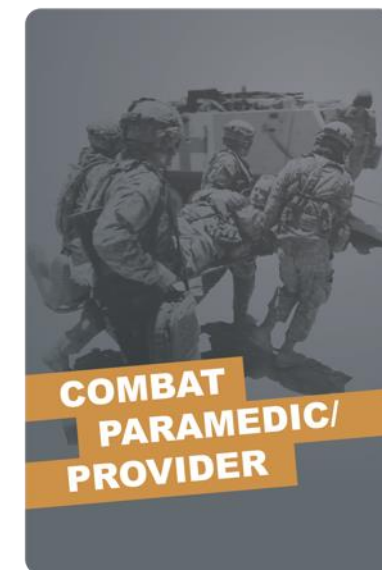
# TACTICAL COMBAT CASUALTY CARE (TCCC) ROLE-BASED TRAINING SPECTRUM

## ROLE 1 CARE

### NONMEDICAL PERSONNEL



### MEDICAL PERSONNEL



◀ **YOU ARE HERE**

STANDARDIZED JOINT CURRICULUM

# TERMINAL LEARNING OBJECTIVE

## 11 Describe shock assessment in Tactical Field Care in accordance with CoTCCC Guidelines

- **67** Identify the signs, symptoms, and management steps of shock in a trauma casualty with life-threatening bleeding
- **68** Identify the importance of level of consciousness and radial pulse as indicators of shock in Tactical Field Care

## 02 ENABLING LEARNING OBJECTIVES (ELOs)

● = Cognitive ELOs ● = Performance ELOs

# 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

# SHOCK RECOGNITION



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

# SHOCK

Shock is **inadequate blood flow to body tissues**.

Inadequate blood volume inside the circulatory system results in inadequate oxygen delivery to the body's cells

As cells cease to function, tissues cease to function, then organs cease to function, and eventually the **whole body will fail** and **DEATH** follows

## IMPORTANT CONSIDERATIONS:

Shock will lead to the casualty's death if not quickly recognized and treated





# SHOCK

Caused by a decrease in the amount of blood volume circulating in the casualty's blood circulatory system

Shock can have many causes – low blood volume or hypovolemia (dehydration or blood loss), low blood pressure (massive infection), heart failure, or neurologic damage

Usually caused by severe bleeding, but it can also be caused by severe burns (second- and third-degree burns on 20 percent or more of the body surface)

On the battlefield, assume shock is from severe blood loss (also called hemorrhagic shock)



Hemorrhagic shock can result in the casualty's **death**

MARCH

# GENERAL INDICATORS OF **SHOCK**



## SIGNS AND SYMPTOMS OF SHOCK INCLUDE:

**Mental confusion**

Rapid breathing

Sweaty, cool, clammy skin

Pale/gray skin

**Weak or absent radial pulse**

Nausea

Excessive thirst

Previous severe bleeding





# GENERAL INDICATORS OF SHOCK

## IMPORTANT Indicator:

■ Mental confusion

## IMPORTANT Indicator:






■ Weak or absent radial pulse

If **BOTH** indicators exist, the casualty has lost a **SIGNIFICANT** amount of blood

As previously stated, shock will lead to the casualty's **death** if not quickly recognized and treated



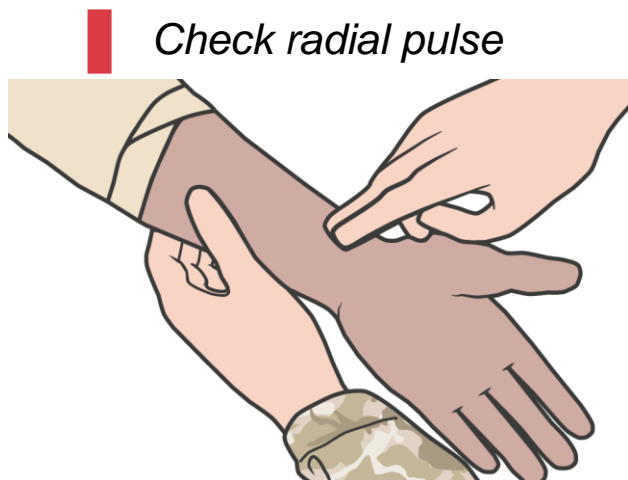
# GENERAL INDICATORS OF SHOCK

|   | Blood Volume                             | Blood Loss | Signs/Symptoms   | Effects/Outcome                                 |
|---|--|------------|--|---|
|    | 4 liter bottles full, one bottle ½ empty | 500 cc     | Possible increased HR  | Usually no effects                              |
|    | 4 liter bottles full, 1 empty            | 1,000 cc   | Radial pulse >100<br>Breathing prob normal   | Unlikely to die from this amount of loss        |
|    | 3½ bottles full, 1½ empty                | 1,500 cc   | Change in mental status<br>Weak radial pulse >100<br>Increased respirations          | Still unlikely to die                           |
|   | 3 bottles full, 2 empty                  | 2,000 cc   | Confusion and lethargy<br>Very weak radial pulse >120<br>High respiratory rate (>35) | Very possibly fatal if not managed              |
|  | 2½ bottles full and 2½ bottles empty     | 2,500 cc   | Unconscious<br>No radial pulse, carotid pulse,<br>HR >140<br>Respirations >35        | Fatal without immediate and rapid interventions |

# PREVENT SHOCK BY CONTROLLING BLEEDING

*#1- Reassess to confirm all bleeding control measures are still effective*

*Ensure TQs and pressure dressings remain tight*



**DO NOT WAIT** for signs and symptoms of shock to occur

It is better to prevent shock with hemorrhage control than to treat it

If shock is present, though, the most critical first step is to control the bleeding

Internal bleeding from chest or abdominal trauma may not be controllable, and shock may develop later, so continuously assess the casualty

Medical personnel will provide other treatments, but you can save them time if extremal bleeding is controlled



# ASSESS/MONITOR FOR **HEMORRHAGIC SHOCK**



Assess for signs and symptoms of shock as soon as hemorrhage is controlled, the airway is open, and respirations have been managed

The best TACTICAL indicators of shock are a decreased state of consciousness (if casualty has not suffered a head injury) and/or an abnormal, weak, absent radial pulse

Assess for hemorrhagic shock (altered mental status in the absence of brain injury and/or weak or absent radial pulse)

Reassess/monitor for changes in the level of consciousness by checking for alertness or responsiveness to verbal or physical stimulation

**MARCH**

## REASSESS



### Level of consciousness

Check casualty every 15 minutes for **AVPU**

**A**lertness - Knows who, where they are

**V**erbal - Orally responds to verbal commands

**P**ain – Level of pain felt when the sternum is briskly rubbed with the knuckle (**if needed**)

**U**nconscious - Unresponsive

**Decreasing** AVPU could indicate condition worsening



### Breathing Rate

Monitor respirations

Thoracic trauma may indicate tension pneumothorax (needle decompression of the chest required)

If a casualty becomes unconscious or their breathing rate drops below two respirations every 15 seconds, insert a nasopharyngeal airway



# SHOCK MANAGEMENT



Fluids by mouth are permissible if the casualty is conscious and can swallow

Evacuate the casualty if medical help is not available.



Place casualty in recovery position



Reassess the casualty frequently for the onset of shock



# HYPOTHERMIA MANAGEMENT

## REMEMBER:



**Keep** the casualty **warm** and prevent hypothermia. Even in **very hot environments**, a casualty in **hemorrhagic shock** (blood loss) is at **EXTREME** risk for hypothermia

Place a poncho or blanket **under** the casualty to **protect** from the temperature or dampness of the ground

Cover the casualty with a survival blanket or other available materials to keep them warm and dry

## SUMMARY

### IMPORTANT Indicator:

- Mental confusion

### IMPORTANT Indicator:

- Weak or absent radial pulse

- We **defined** shock
- We **identified** indicators of shock
- We discussed **prevention measures** for shock
- We discussed the **management** of shock
- We **introduced** hypothermia



# CHECK ON LEARNING

- What is shock?
- What are the best TACTICAL indicators of shock?
- What is the most important action to prevent hemorrhagic shock?

# ANY QUESTIONS?