FIELD MEDICAL ASSISTANT COURSE (FMAC)

MODULE 10:
SHOCK RECOGNITION

TACTICAL FIELD MEDICAL AID (TFMA)

ROLE-BASED TRAINING SPECTRUM

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant

You are HERE

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

STUDENT LEARNING OBJECTIVES

TERMINAL LEARNING OBJECTIVE

T11 Describe shock assessment in Tactical Field Care in accordance with TFMA Guidelines

EO63 Identify the signs, symptoms, and management steps of shock in a trauma casualty with life-threatening bleeding

EO64 Identify the importance of level of consciousness and radial pulse as indicators of shock in Tactical Field Care

TACTICAL FIELD CARE

MARCH PAWS

DURING **LIFE-THREATENING**

MASSIVE BLEEDING **#1 Priority**

AIRWAY

RESPIRATION

CIRCULATION

HYPOTHERMIA / HEAD INJURIES

AFTER **LIFE-THREATENING**

PAIN

ANTIBIOTICS

WOUNDS

SPLINTING

SHOCK RECOGNITION

SHOCK RECOGNITION

Video can be found on DeployedMedicine.com

CIRCULATION/SHOCK

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

CIRCULATION/SHOCK

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**

M A R C H

CIRCULATION/SHOCK

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

M A R C H

CIRCULATION/SHOCK

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

CIRCULATION/SHOCK

GENERAL INDICATORS OF SHOCK

Blood Volume	Blood Loss	Signs/Symptoms	Effectme
4 liter bottles full, 1 bottle1/2 empty	500cc	Possible increased HR	Usually no effects
4 liter bottles full, 1 empty	1000cc	Radial pulse >100 Breathing probably normal	Unlikely to die from this amount of loss
31/2 bottles full, 11/2 empty	1500cc	Change in mental status Weak radial pulse >100 Increased respirations	Still unlikely to die
3 bottles full, 2 empty	2000cc	Confusion and lethargy Very weak radial pulse >120 High respiratory rate >35	Very possibly fatal if not managed
21/2 bottles full and 21/2 bottles empty	2500cc	Unconscious No radial pulse, carotid pulse, HR >140 Respirations > 35	Fatal without immediate and rapid interventions

M A R C H

CIRCULATION/SHOCK

PREVENT SHOCK BY CONTROLLING BLEEDING

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

Ensure TQs and pressure dressings remain tight

- *Check radial pulse*

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

M A R C H

CIRCULATION/SHOCK

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

M A R C H

SHOCK RECOGNITION

REASSESS

Level of consciousness

Check casualty every 15 minutes for **AVPU**

Alertness - Knows who, where they are

Verbal - Orally responds to verbal commands

Pain - Level of pain felt when the sternum is briskly rubbed with the knuckle (if needed)

Unconscious - 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

CIRCULATION/SHOCK

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

CIRCULATION/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?