

CPP

TCCC

**COMBAT PARAMEDIC/
PROVIDER**

TACTICAL COMBAT CASUALTY CARE COURSE

MODULE 17: WOUND MANAGEMENT



Committee on
Tactical Combat
Casualty Care
(CoTCCC)

TCCC TIER 1
All Service Members

TCCC TIER 2
Combat Lifesaver

TCCC TIER 3
Combat Medic/Corpsman

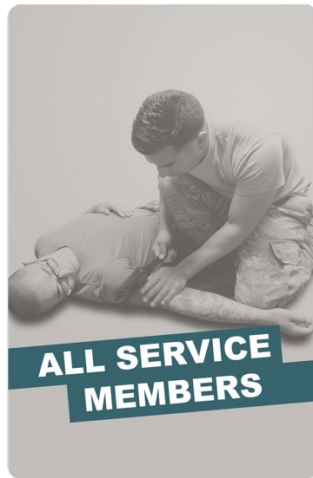
TCCC TIER 4
Combat Paramedic/Provider



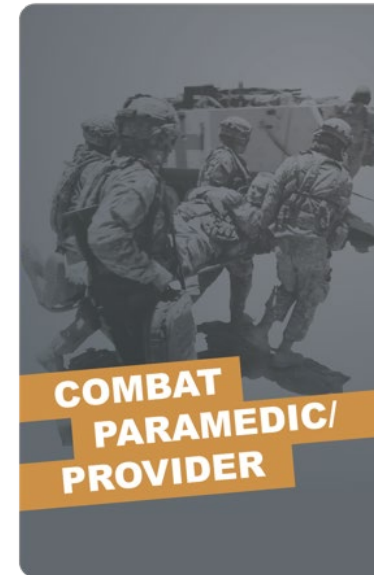
TACTICAL COMBAT CASUALTY CARE (TCCC) ROLE-BASED TRAINING SPECTRUM

ROLE 1 CARE

NONMEDICAL
PERSONNEL



MEDICAL
PERSONNEL



▲
YOU ARE HERE

STANDARDIZED JOINT CURRICULUM



1 x **TERMINAL LEARNING OBJECTIVES**

19 Given a combat or noncombat scenario, perform assessment and initial management of wounds during Tactical Field Care in accordance with CoTCCC Guidelines.

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- **19.1** Identify wound management considerations in Tactical Field Care.
- **19.2** Demonstrate application of open abdominal, impalement, and amputation wound dressings in Tactical Field Care.
- **19.3** Identify any evidence-based medicine, best practices, casualty data, and Subject Matter Expert consensus on wound management in Tactical Field Care.

03 x **ENABLING LEARNING OBJECTIVES**

= Terminal Learning Objectives ● = Cognitive ELOs ● = Performance ELOs



MARCH PAWS

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





GENERAL WOUND MANAGEMENT PRINCIPLES

REASSESS prior life-threatening wounds to ensure bleeding is still controlled

Only after reassessing all previously addressed wounds should you address non-life-threatening or minor wounds



If bleeding has **NOT** been controlled:

- Tighten or add additional tourniquets
- Add packing or tighten pressure bandages
- Redress the wounds
- Address any unsealed open chest wounds
- Shield any exposed eye injuries



REMEMBER:

NEVER apply a tourniquet and forget it!

P A W S



GENERAL WOUND MANAGEMENT PRINCIPLES (CONT.)

Non-life-threatening wounds include:

- Lacerations without massive bleeding
- Abrasions
- Open abdominal wounds
- Impaled objects
- Amputation stumps



Delayed considerations:

Need for debridement, tetanus boosters and maintenance (or changes) in antibiotics

General Wound Management Principles:

- **APPLY** direct pressure, as needed (hemostatic dressings not indicated with minor bleeding)
- **IRRIGATE & CLEAN** wounds with sterile or clean water
- **DRESS** wounds with gauze and bandages or dry, clean cloths
- **ADMINISTER** Antibiotics

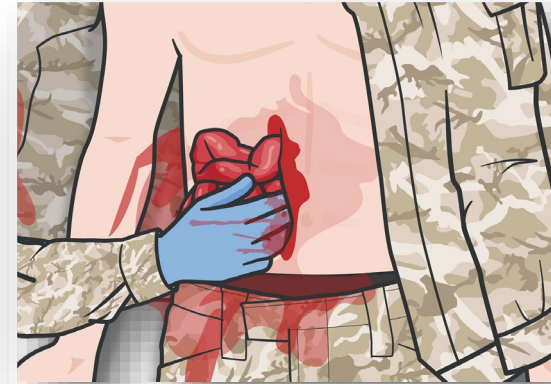
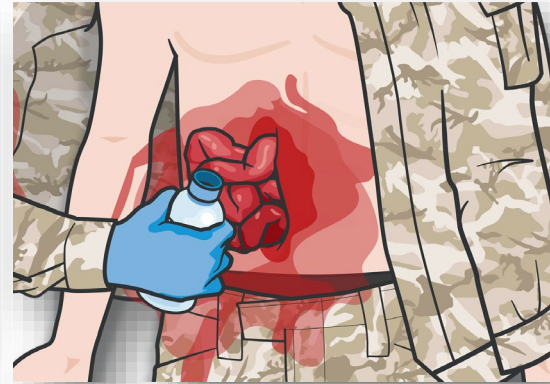


Level of Evidence: C-LD

P A W S



OPEN ABDOMINAL WOUND MANAGEMENT



MANAGEMENT STEPS:

- 1 **PLACE** the casualty in the supine position, with knees flexed
- 2 **Expose** the wound inspecting for DCAP-BLS and TRD-P
- 3a **Rinse** the wound with clean (and warm, if possible) fluid
- 3b **Apply** CoTCCC-recommended hemostatic dressing or hemostatic agent to any uncontrolled bleeding
- 4 Consider a **single brief attempt** (<60 sec) to reduce/replace eviscerated abdominal contents



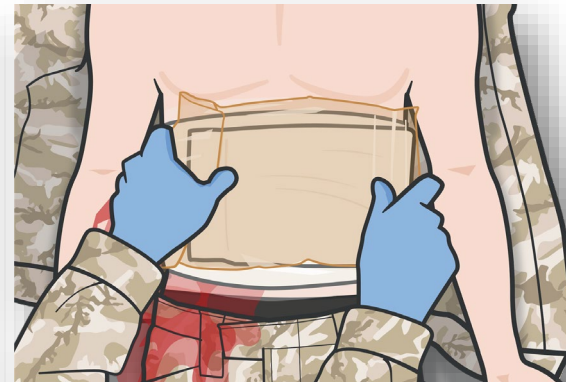
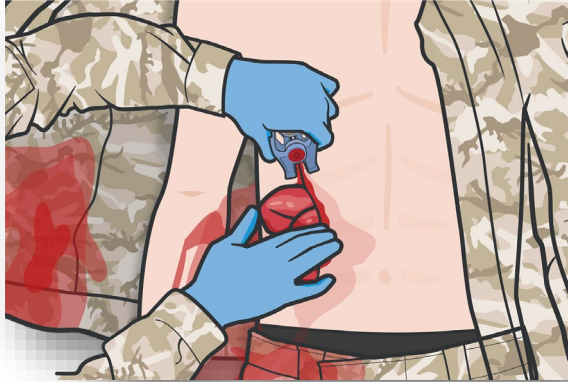
CAUTION:

DO NOT attempt if there is evidence of ruptured bowel (gastric/intestinal fluid or stool leakage) or active bleeding

DO NOT FORCE contents into abdomen or actively bleeding viscera or remove foreign objects

P A W S

OPEN ABDOMINAL WOUND MANAGEMENT cont.



MANAGEMENT STEPS:

- 5 If reduction attempt is successful, **re-approximate** the skin
- 6 **Stabilize** any protruding objects
- 7 **Cover** exposed bowel with moist, sterile abdominal dressings
- 8 **Cover** the dressed, eviscerated organs with water impermeable non-adhesive material
- 9 **Secure** the impermeable dressing to patient using adhesive bandage



CAUTION:

Protruding abdominal organs should be kept moist

(a) Cover the entire mass of protruding organs or area of the wound.

(b) Using the sterile side of the dressing, or other clean, damp material, gather or keep any protruding organs near the wound and cover the wound.

NOTE: Do not touch exposed organs with bare hands.

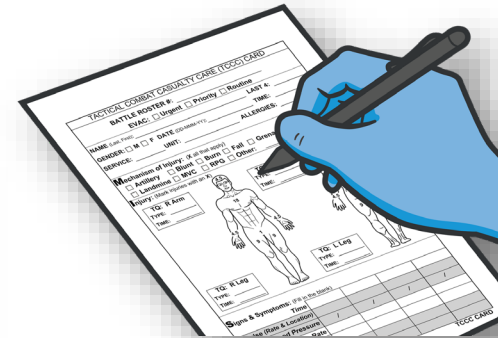
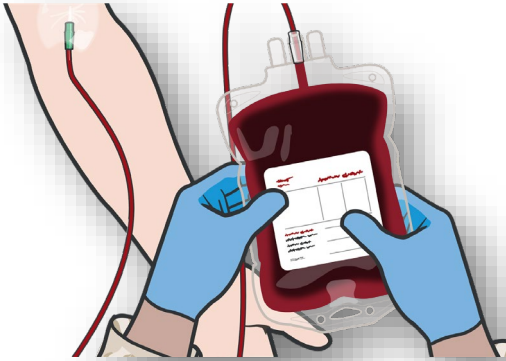
(c) If using a dressing with tails, tie loosely and do not tie directly over the wound.



Level of Evidence: C-LD

P A W S

OPEN ABDOMINAL WOUND MANAGEMENT cont.



MANAGEMENT STEPS:

- 10 Assess and treat** the casualty for shock and continue to reassess periodically
- 11 Prevent** hypothermia as exposed abdominal contents will result in more rapid heat loss
- 12 Document** all findings and treatments on a DD Form 1380 TCCC Casualty Card and attach it to the casualty

CAUTION:

The **most important** concern in the initial management of abdominal injuries is **shock**

Shock may be present initially or may develop later



Level of Evidence: C-LD

P A W S



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Module 17: Wound Management

MANAGING AN OPEN ABDOMINAL WOUND



Video can be found on deployedmedicine.com



WOUND MANAGEMENT WITH **IMPALED OBJECTS**



DO NOT remove impaled objects

CONSIDERATIONS:

Impaled object may be stopping internal bleeding

Internal structures may be damaged by removal of impaled object



Use **EXTREME CAUTION** to prevent movement of the impaled object during casualty movement



MANAGEMENT STEPS:

Expose the object

Stabilize the object

Secure materials
& object

Control bleeding

Build up materials
around object

Splint, if indicated

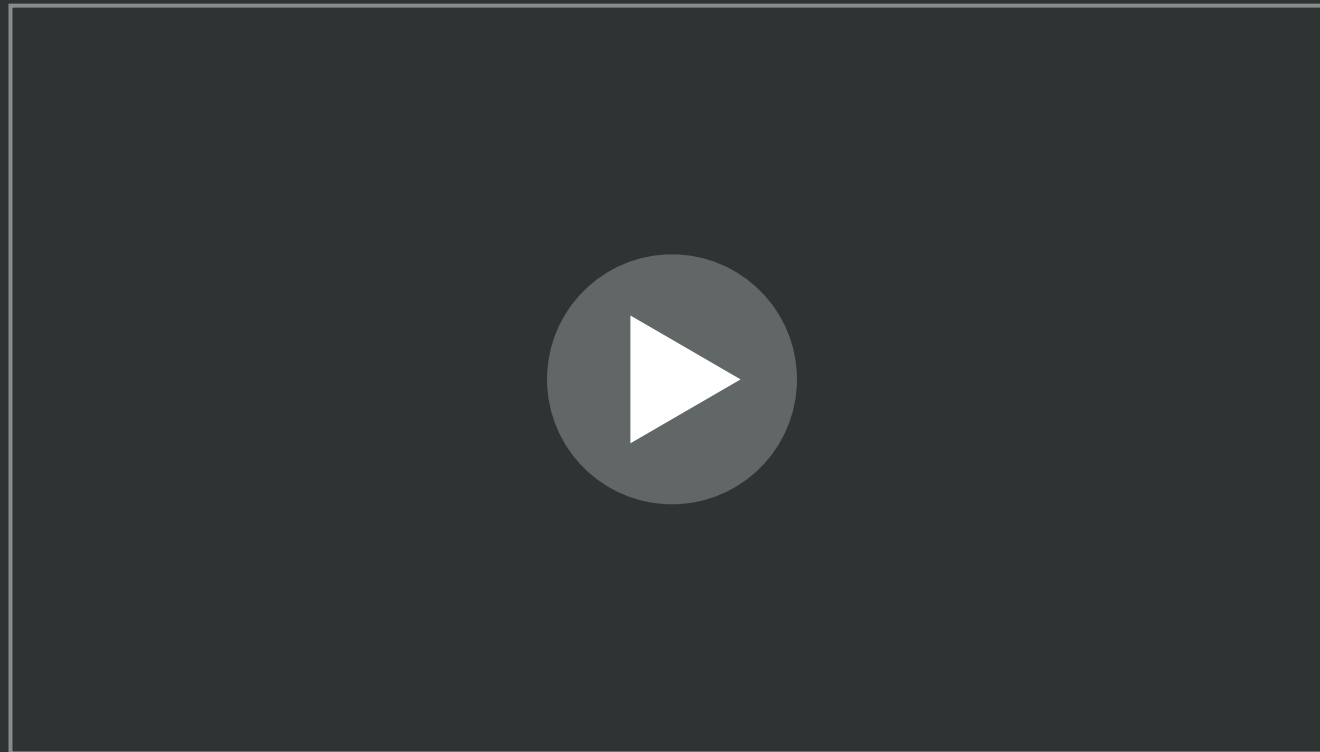
P A W S



Level of Evidence: C-LD



MANAGING AN IMPALED OBJECT



Video can be found on deployedmedicine.com

WOUND MANAGEMENT OF AMPUTATIONS



Management of **Amputated Wound Stumps**:

- **CONFIRM** bleeding controlled (tourniquet, not direct pressure)
- **WRAP** open areas with sterile gauze or clean, dry cloth
- **SECURE** dressing with bandages or cravats, extending 4 inches above the amputation
- Do **NOT** cover any tourniquets



CAUTION:

Protruding sharp bones may injure responders



Care of the **Amputated Body Part**:

- **WRAP** loosely with saline-moistened gauze
- **PLACE** in plastic bag or wrap in a cravat
- **TRANSPORT** in container with ice, preferably with casualty
- Do **NOT** place body part **directly** on ice, **submerge** in water, or **cool** with dry ice
- Do **NOT** delay evacuation to locate or care for amputated body part

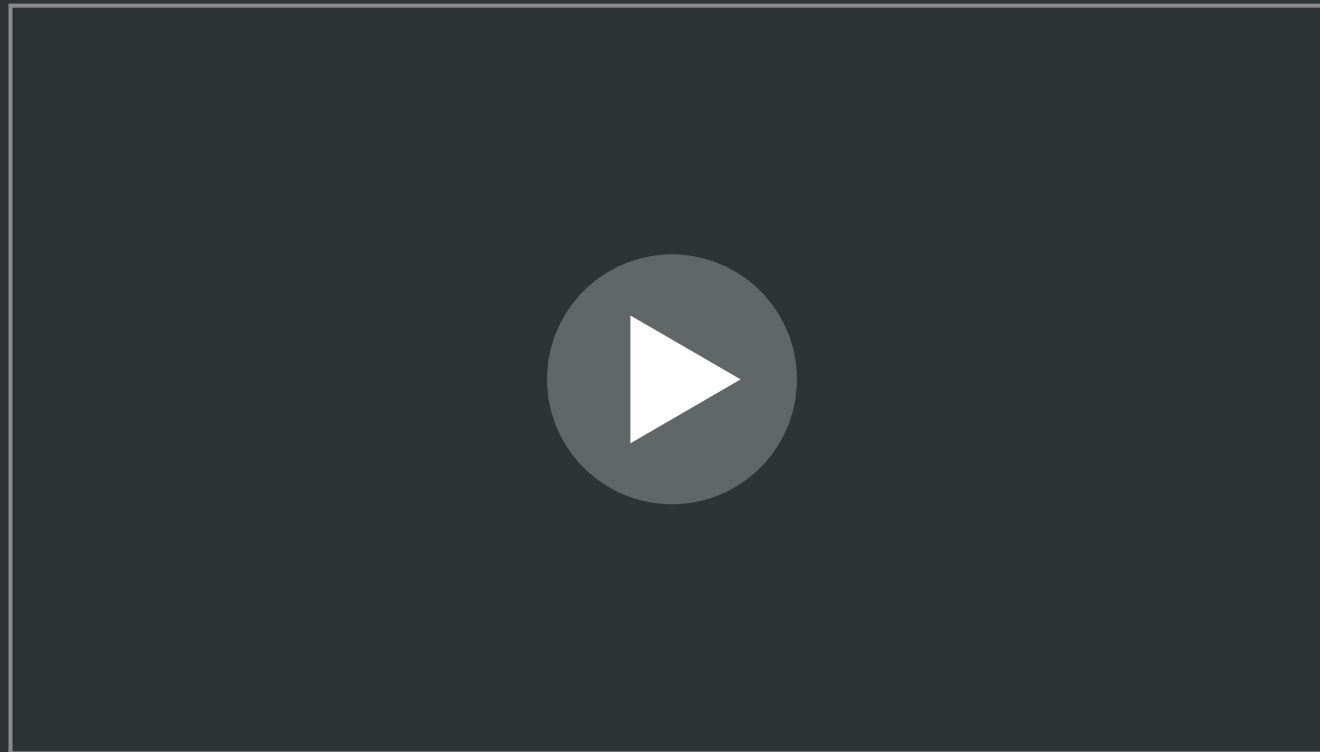


Level of Evidence: C-LD

P A W S



AMPUTATION BANDAGING



Video can be found on deployedmedicine.com



EVIDENCE SUPPORTING WOUND MANAGEMENT STRATEGIES

Subject Category	Study Types	Level of Evidence
Wound Management Principles	Meta-analysis of observational studies, lab evaluations and case studies.	C-LD
Open Abdominal Wound Management	Meta-analysis of observational studies, lab evaluations and case studies	C-LD
Wound Management with Impaled Objects	Meta-analysis of observational studies, lab evaluations and case studies	C-LD
Wound Management of Amputations	Meta-analysis of observational studies, lab evaluations and case studies	C-LD






ASSESSING THE EVIDENCE FOR GUIDELINES

Level of Evidence	AHA Recommendation System Terminology Explanation	Why the AHA Classification System?
A	Evidence from multiple randomized clinical trials (RCT) with concordant results or from HIGH-QUALITY meta-analyses.	<ul style="list-style-type: none">• The level of evidence recommendations allow readers to quickly glean information on the strength, certainty, and quality of evidence supporting each recommendation.• A recommendation with Level of Evidence (LOE) C does not imply that the recommendation is weak.• Although, RCTs are unavailable, there may be a very clear clinical consensus that a particular test or therapy is useful or effective.
B-R	Evidence from moderate-quality trials, or a meta-analysis of moderate quality (RCT) followed by an R to denote RANDOMIZED studies	
B-NR	Evidence from moderate-quality trials, or a meta-analysis of moderate quality followed by NR to denote NON-RANDOMIZED studies	
C-LD	There is no convincing evidence and is followed by LD to indicate LIMITED DATA	
C-EO	There is no convincing evidence and is followed by EO if the consensus is based on EXPERT OPINION , case studies or standards of care.	



SKILL STATION

Wound Management

-  Open Abdominal Wound Management
-  Impaled Object Wound Management
-  Amputation Wound Management



SUMMARY

Knowledge Topics

- General wound management principles
- Open abdominal wound dressings
- Impaled object wound management
- Amputation stump and amputated body part care
- Evidence supporting wound management recommendations

Skills and Abilities

- Open abdominal wound dressings application
- Impaled object wound dressing application
- Amputation stump and amputated body part care dressing application



CHECK ON LEARNING



After applying pressure to stop bleeding, if necessary, what is the next step in treating a minor wound?



Name three of the four complications of open abdominal wounds



If an impaled object is on an extremity, what do you need to do in addition to stabilizing the object?



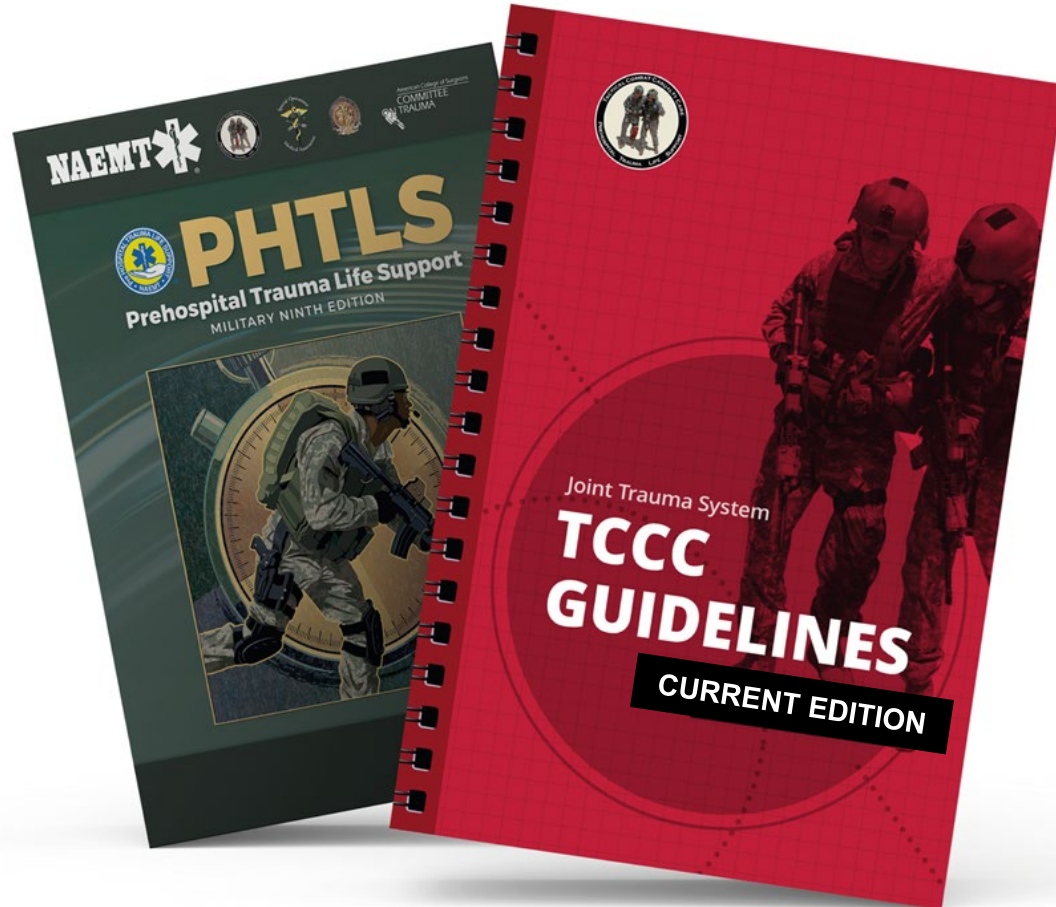
How do you care for an amputated body part?

Three stylized bullet hole graphics with jagged, spiky edges. One is on the left, one is on the right, and a larger one is at the bottom center.

ANY QUESTIONS?



REFERENCES



TCCC: Guidelines

by JTS/CoTCCC

These guidelines, updated regularly, are the result of decisions made by CoTCCC in exploring evidence-based research on best practices.

PHTLS: Military Edition, Chapter 25

by NAEMT

Prehospital Trauma Life Support (PHTLS), Military Edition, teaches and reinforces the principles of rapidly assessing a trauma patient using an orderly approach.