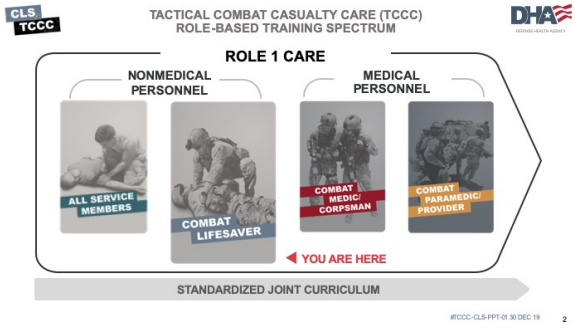
MODULE 16 – BURN TREATMENT

SLIDE 1 – TITLE SLIDE

SLIDE 2 – TCCC ROLES

Tactical Combat Casualty Care is broken up into 4 roles of care. The most basic is taught to All Service Members (ASM), which is the absolute basics of hemorrhage control and to recognize more serious problems.



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.

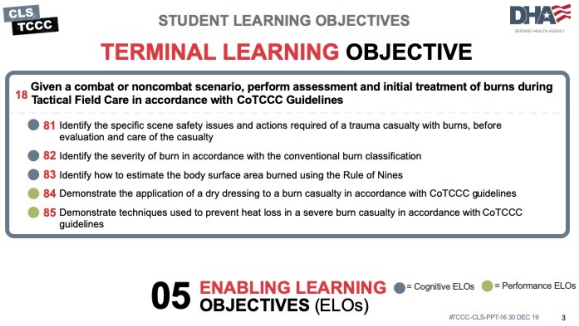
The Combat Medic/Corpsman role has much more advanced and invasive care requiring significantly more medical knowledge and skills.

Finally, the last role 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 combat lifesaver is to treat the most common causes of death on the battlefield, which are massive hemorrhage and airway/respiratory problems. In addition, you are given the skills to prevent complications and treat other associated but not immediately life-threatening injuries.

SLIDE 3 – TLO/ELO

There are <u>three cognitive learning objectives</u> and two performance learning objectives for the burn's module.



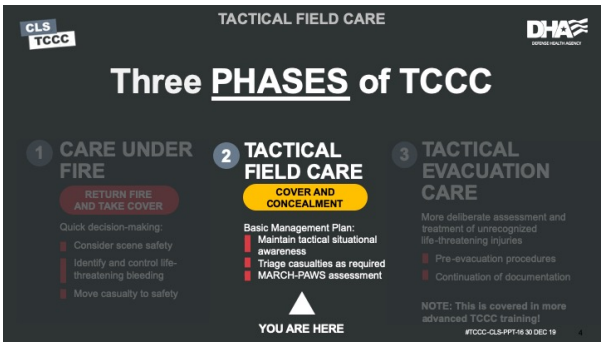
The cognitive learning objectives are to identify the scene safety issues associated with burn scenarios and any actions required to secure the scene, identify the severity of the burns and estimate the percentage of the body surface involved in the burn.

The performance learning objectives are to demonstrate how to apply a burn dressing and techniques to prevent heat loss (hypothermia) in a burn trauma casualty.

The critical aspects are to be able to recognize safety concerns in burn scenarios, know the types of burns by severity and know how to estimate body surface area affected by a burn, and then be able to apply burn dressing(s) and perform the necessary skills in order to successfully prevent heat loss (hypothermia) in a burn trauma casualty.

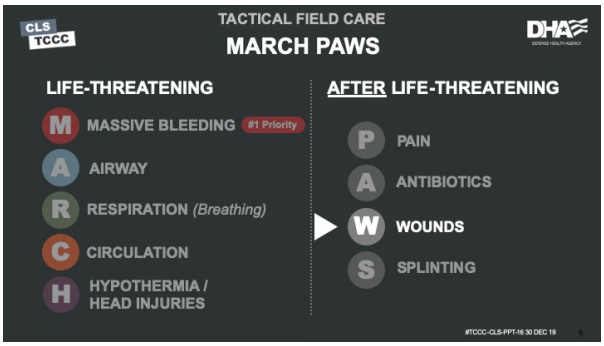
SLIDE 4 – THREE PHASES OF TCCC

Remember, you are now in the Tactical Field Care (TFC) 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 (CUF) phase, to the re-assessment of all previous interventions, followed by the prevention and treatment of other injuries and complications such as burns.



SLIDE 5 – MARCH PAWS

Burns are part of the "W" in the MARCH PAWS sequence, which stands for wounds.



SLIDE 6 – FOLLOW MARCH PAWS

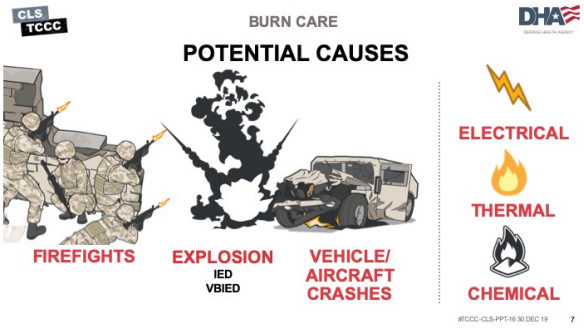
A burned casualty is still a trauma casualty.

You **must** address all other life-threatening injuries using the MARCH PAWS sequence first.

Remember, all trauma treatments can be performed on or through burned skin.

SLIDE 7 – POTENTIAL CAUSES

Burns can happen during firefights, explosions, or vehicle or aircraft crashes, or from exposure to electrical, thermal, or chemical events.

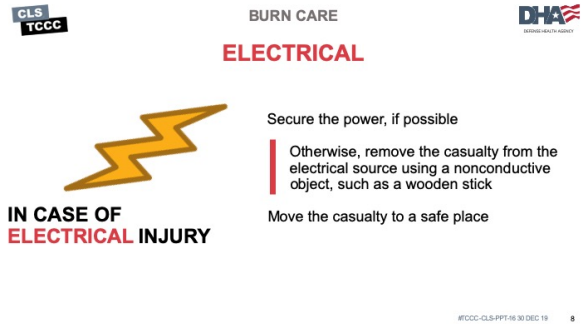


SLIDE 8 – ELECTRICAL

In an electrical injury, the first thing to do is to secure the power, if possible.

Otherwise, remove the casualty from the electrical source using a nonconductive object, such as a wooden stick.

Then, move the casualty to a safe place.

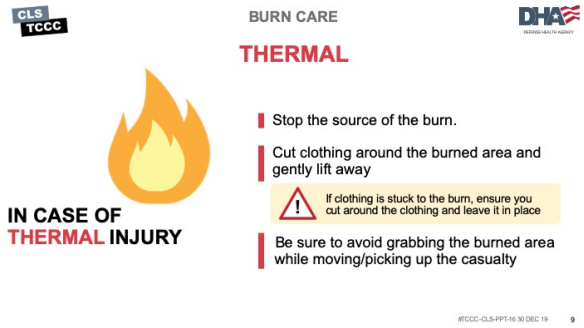


SLIDE 9 – THERMAL

In a thermal injury, such as flames and flashes, the first step is to **stop the source of the burning**.

This may entail smothering the flames or removing the casualty from the heat source, but always remember to protect yourself from getting burned while doing this.

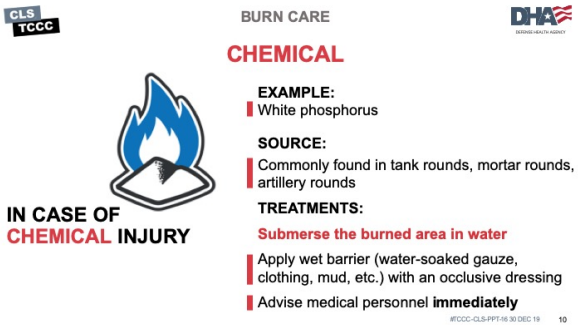
Then, to assess and manage the burn, cut the clothing from around the burned area and gently lift it away. If the clothing is stuck to the burn, cut around the edges of the clothing that has adhered to the skin and leave it in place. **Do not pull it off** the burn. Let medical personnel address removal of any remaining/attached materials when they assume care of the casualty.



Be sure to avoid grabbing or further damaging burned areas by manipulating them during casualty movements.

SLIDE 10 – CHEMICAL

Chemical burns can be caused by many different types of chemicals present in vehicles, machinery, and even some weapons.



An example of a chemical weapon **is white phosphorus**.

It is commonly found in tank, mortar, and artillery rounds.

To prevent continued burning from the chemical, submerse the affected area in water, if possible.

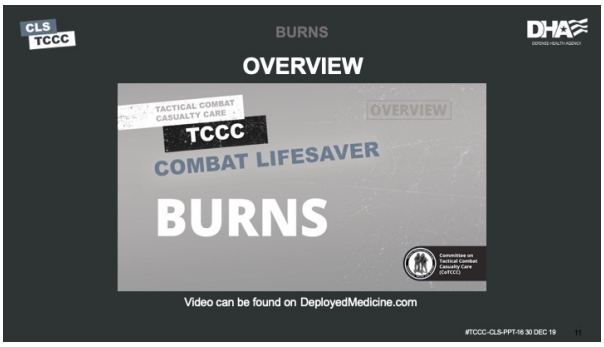
If submersion is not possible, the dressing must be wet, which can be done by applying a wet barrier, such as water-soaked gauze, clothing, or mud, and covering with an occlusive dressing.

By submersing the affected area, it removes the oxygen supply that causes the burning.

Advise medical personnel immediately in the case of a chemical burn.

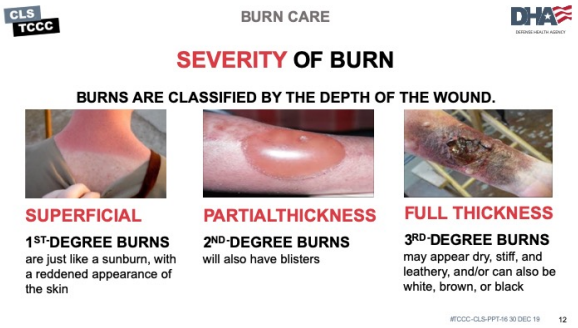
SLIDE 11 – BURNS OVERVIEW (VIDEO)

Play video.



SLIDE 12 – SEVERITY OF BURN

Burns range in severity. Here are visuals to help identify the severity of the burn, based on its depth.



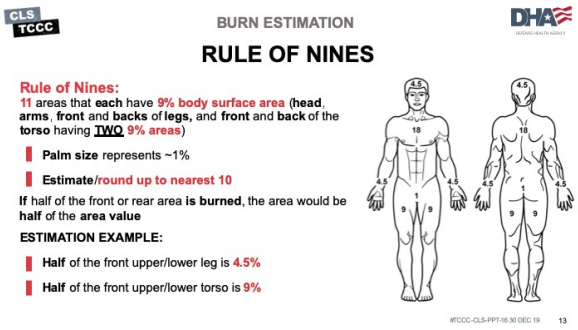
Superficial, or first-degree burns, will appear reddened like a sunburn.

Partial thickness, or second-degree burns, will also appear reddened but may also have blisters.

Full thickness, or third-degree burns, will be dry, stiff, leathery, and variable in color.

SLIDE 13 – RULE OF NINES

On the DD Form 1380 the percentage of coverage on the casualty's body will need to be documented. The Rule of Nines will help with the estimation. The graphic here shows the approximation for each area of the body:



Eleven areas each have 9% body surface area (head, arms, front and back of legs, and front and back of the torso having two 9% areas each).

General guidelines are that the size of the palm of the hand represents approximately 1% of the burned area. When estimating, it is easiest to round up to the nearest 10.

If half of the front or rear area is burned, the area would be half of the area value.

For example, if half of the front upper leg or front lower leg is burned, it would be half of 9%, or 4.5%. If half of the front torso is burned, say either the upper or lower part of the front torso, then it would be half of 18%, or 9%.

Remember, the higher the percentage burned, the higher the chance for hypothermia.

SLIDE 14 – BURN CARE

All TCCC procedures can be performed on or through burned skin in a burn casualty.

Remove all watches and jewelry from the burned area so they don't cause constriction when swelling occurs.

Cover the burned area with a dry, sterile dressing, if possible.

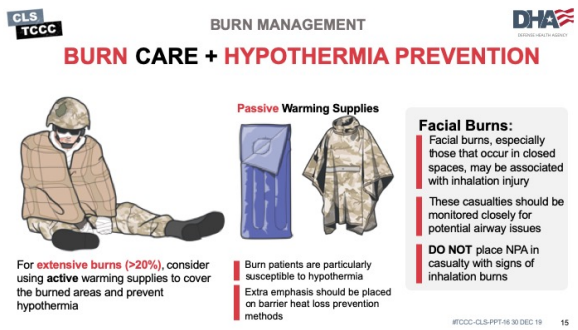
For white phosphorus only, cover the area with a wet dressing.

REMEMBER: Treat the casualty first not the burn.

SLIDE 15 – BURN CARE + HYPOTHERMIA PREVENTION

Be mindful of burns along with massive bleeding. **Ensure bleeding is controlled**.

Burn patients are particularly susceptible to hypothermia. Extra emphasis should be placed on barrier heat loss prevention methods. Keep casualties off the ground and onto an insulated surface as soon as possible.



For extensive burns, those with >20% of the area burned, consider placing the casualty in the Heat Reflective Shield (HRS) to cover the burned areas and prevent hypothermia.

Regardless of ambient temperature in the environment, actively prevent/manage hypothermia for burn patients using these methods.

Facial burns, especially those that occur in closed spaces, may be associated with inhalation injury. These casualties should be monitored closely **for potential airway issues**. **DO NOT** place an NPA in a casualty with signs of inhalation burns. Notify medical personnel as soon as possible if an inhalation injury is suspected.

Analgesia may be administered to treat burn pain.

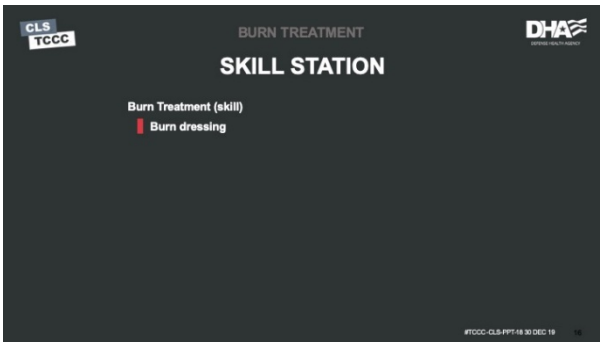
Antibiotic therapy is not indicated solely for burns but should be given to prevent infection in penetrating wounds.

Be mindful of warm weather and cool weather interventions. The addition of blood loss can cause the body's temperature to drop even when it is hot outside. Never cover a tourniquet; keep it visible so medical personnel can easily see it.

SLIDE 16 – SKILL STATION

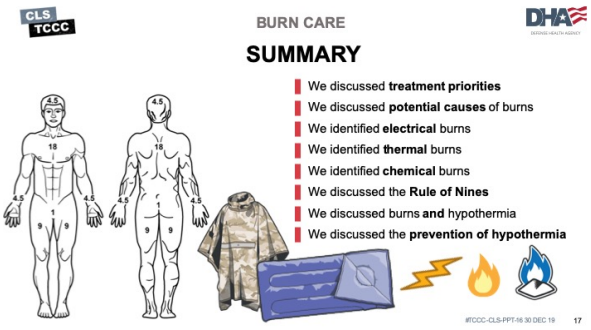
At this time we will break into skill stations to practice the following skills:

- Burn dressing

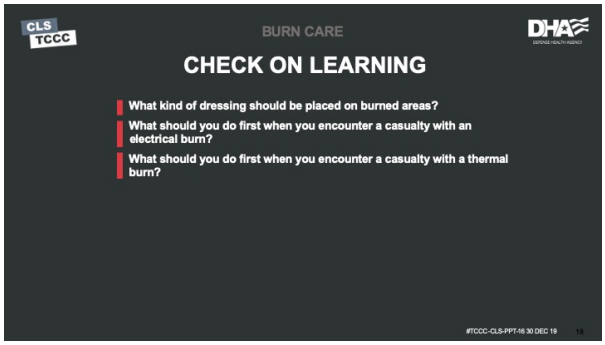


SLIDE 17 – SUMMARY

In this module, we discussed burn care. We identified the safety concerns in burn scenarios and actions required to secure the scene. We addressed how to know the types of burns by severity and how to estimate the body surface area affected by a burn. We also demonstrated application of a burn dressing and techniques to prevent heat loss in a burn trauma casualty.



SLIDE 18 – CHECK ON LEARNING



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

Now for a check on learning.

1. What kind of dressing should be placed on burned areas?
   - A dry sterile dressing
2. What should you do first when you encounter a casualty with an electrical burn?
   - Secure the power, if possible; otherwise, remove the casualty from the electrical source using a nonconductive object, such as a wooden stick.
3. What should you do first when you encounter a casualty with a thermal burn?
   - Stop the source of the burn

SLIDE 19 – QUESTIONS