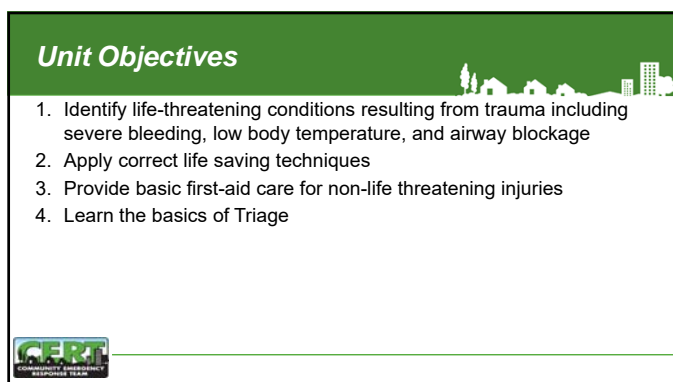
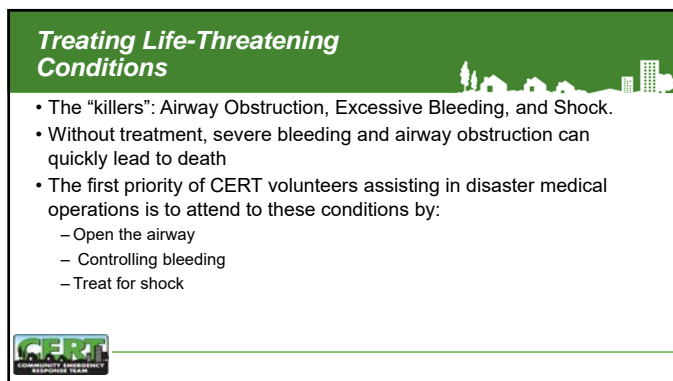




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3

Safety Considerations

- Prior to treatment, ensure that both the patient and rescuer are in a safe environment to administer care
- Some questions CERT volunteers to consider
 - Do I feel safe at this spot?
 - Should I leave and move to a safer location, or am I able to stay and start providing care immediately?
 - If I leave, can I take anyone with me?
 - Do I have what I need to treat the patient?



4

Approaching the Patient

- Be sure patient can see you
- Identify yourself
 - Your name and name of your organization
- Request permission to treat, if possible
- Respect cultural differences
- Protect patient privacy




5

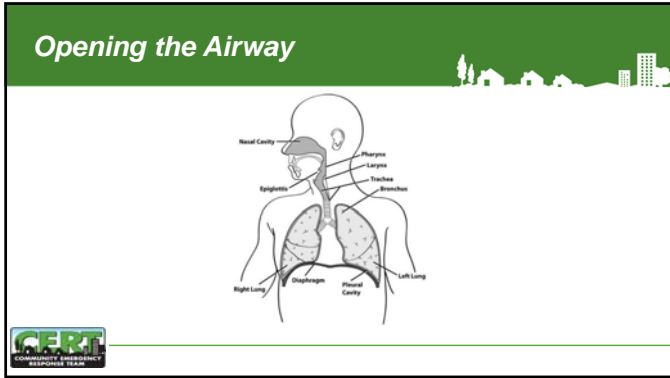
START

- START = Simple Triage and Rapid Treatment
 - Victims sorted based on priority of treatment
 - Rapid treatment of injuries assessed

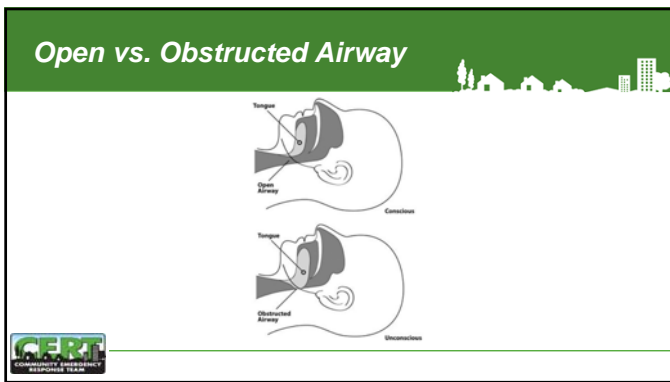
GREATEST good for **GREATEST** number



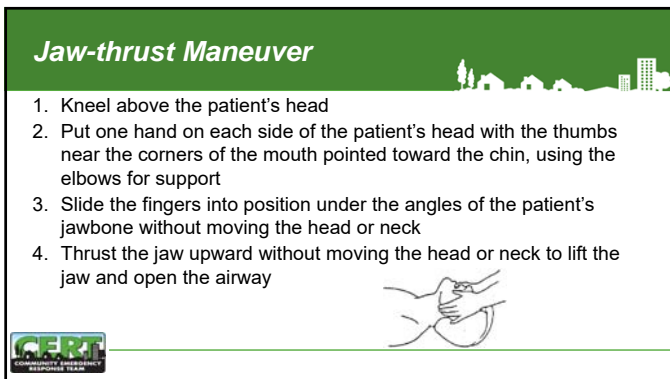
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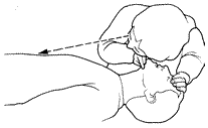
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Look, Listen, and Feel

- **Look** – For chest rise and fall
- **Listen** – For air exchange
- **Feel** – for air exchange on your cheek



10

Triage – Are they breathing?

All Walking Wounded

RESPIRATIONS

MINOR

YES

NO
Position-Away


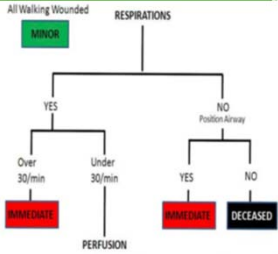
Over 30/min

Under 30/min

PERFUSION

MINOR


DECEASED



11

Recovery Position


- **Body:** Laid on its side
- **Bottom Arm:** Reached outward
- **Top Arm:** Rest hand on bicep of bottom arm
- **Head:** Rest on hand
- **Legs:** Bent slightly
- **Chin:** Raised forward
- **Mouth:** Pointed downward



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Life-Threatening Bleeding


- Indicators of life-threatening bleeding:
 - Spurting/steady bleeding
 - Blood is pooling
 - Blood is soaking through over lying clothes
 - Blood is soaking through bandages
 - Amputation



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Stages of Severe Bleeding


Stage	Blood Loss	Heart Rate	Blood Pressure	Breath Rate	Patient
I	Less than 15%	Normal (<100 bpm)	Normal	14-20	Patient appears normal
II	15%-40%	Fast (>100 bpm)	Slightly Low	20-30	Patient may feel anxious
III	30%-40%	Very Fast (>120 bpm)	Low	30-40	Patient feels confused
IV	Greater than 40%	Critical (>140 bpm)	Critical	>35	Patient feels lethargic



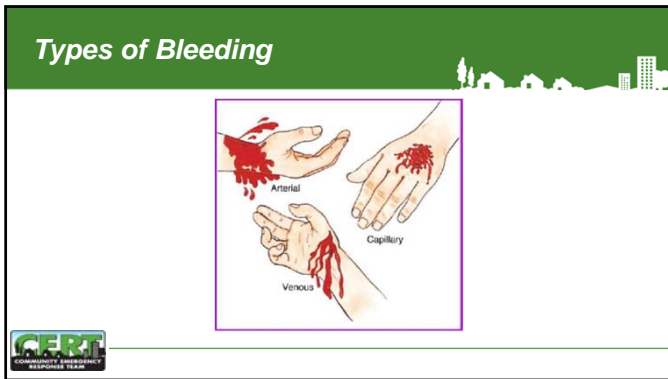
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Types of Bleeding

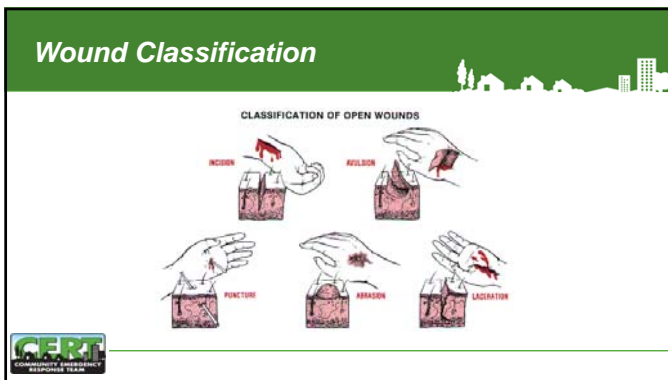
- Arterial bleeding:** Arteries transport blood under high pressure
 - Blood coming from an artery will spurt
- Venous bleeding:** Veins transport blood under low pressure
 - Blood coming from a vein will flow
- Capillary bleeding:** Capillaries also carry blood under low pressure
 - Blood coming from capillaries will ooze



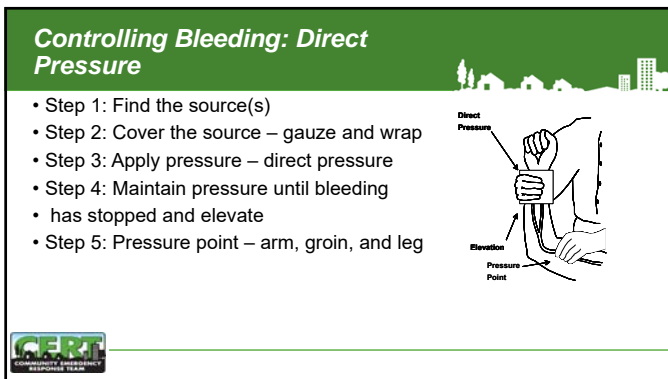
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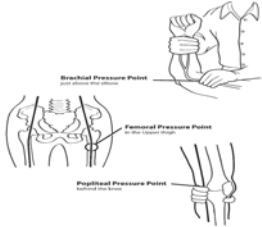


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Pressure Points





Brachial Pressure Point
Femoral Pressure Point
Popliteal Pressure Point



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Controlling Bleeding: Tourniquets



- Use direct pressure, elevation and pressure points to stop bleeding first
- If bleeding can't be stopped and getting professional treatment is delayed a tourniquet may be a viable option to save a person from bleeding to death
- Ideally use a medical grade tourniquet. **Do not use** materials like rope, wire, or string that can cut into the patient's flesh



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Controlling Bleeding: Tourniquets


1. Place the tourniquet between the wound and the heart (for example, if the wound is on the wrist, you would tie the tourniquet around the forearm).
2. Tie the piece of material around the limb.
3. Place a stick, pen, ruler, or other sturdy item against the material and tie a knot around the item, so that the item is knotted against the limb.
4. Use the stick or other item as a lever to twist the knot more tightly against the limb, tightening the bandage until the bleeding stops



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Controlling Bleeding: Tourniquets


5. Tie one or both ends of the lever against the limb to secure it and maintain pressure.
6. Mark the patient in an obvious way that indicates that a tourniquet was used and include the time it was applied.
7. Do not loosen a tourniquet once it has been applied.
8. Only proper medical authorities should remove a tourniquet.
9. Monitor patient for symptoms of shock.




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Tourniquet Video

YouTube video:




<https://www.youtube.com/watch?v=VJFGZC8UvP8>



23

Wound Care


- In the absence of active bleeding, remove dressing and flush, check wound at least every 4-6 hours
- If there is active bleeding, redress over existing dressing and maintain pressure and elevation



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Rules of Dressing

- If active bleeding:
 - Redress OVER existing dressing
- If no active bleeding:
 - Maintain the pressure and keep wound bandaged until further treatment by a medical professional



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Signs of Infection


- Signs of possible infection:
 - Swelling around wound site
 - Discoloration
 - Discharge from wound
 - Red striations from wound site



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Impaled Objects

- When foreign object is impaled in patient's body:
 - Immobilize affected body part
 - Do not attempt to move or remove
 - Try to control bleeding at entrance wound
 - Clean and dress wound, making sure to stabilize impaled object



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Treating Impaled Objects

- Immobilize affected body part
- Don't move or remove
- Control bleeding at entrance wound
- Clean and dress wound making sure impaled object is stabilized



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Impaled Objects




USC Drill Oklahoma Tornado - Teacher



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Nasal Bleeding


- Causes:
 - Blunt force
 - Skull fracture
 - Non-trauma-related conditions – sinus infection, high blood pressure, and bleeding disorders
- Blood loss can lead to shock – may not know how much blood has been lost because victim will swallow some
- Victims may become nauseated and vomit if they swallow blood.



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Treatment of Nasal Bleeding

- Control nasal bleeding:
 - Pinch nostrils or put pressure on upper lip under nose
 - Have victim sit with head forward, NOT back
- Ensure that airway remains open
- Keep victim calm




Sit and lean forward slightly

Breathe through mouth

Pinch nostrils


#ADAM



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Amputations

- Control bleeding
- Clean wound
- Treat for shock
- Save tissue parts, wrapped in clean cloth and place in a plastic bag
- Keep tissue cool, but NOT directly on ice
- Keep severed part with the victim
- Tag Immediate during Triage!

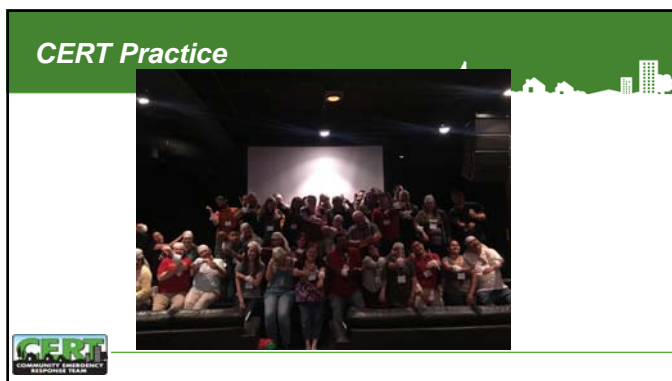


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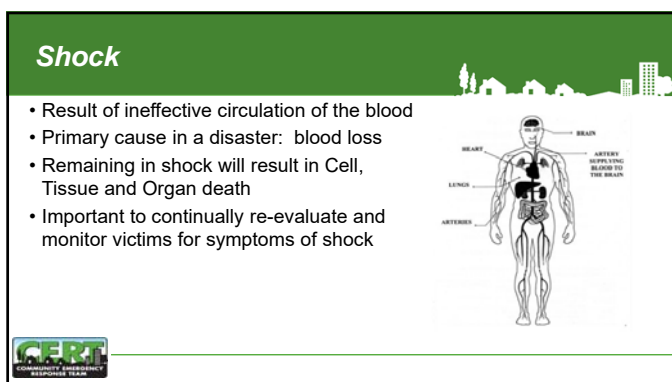
Treating Amputations



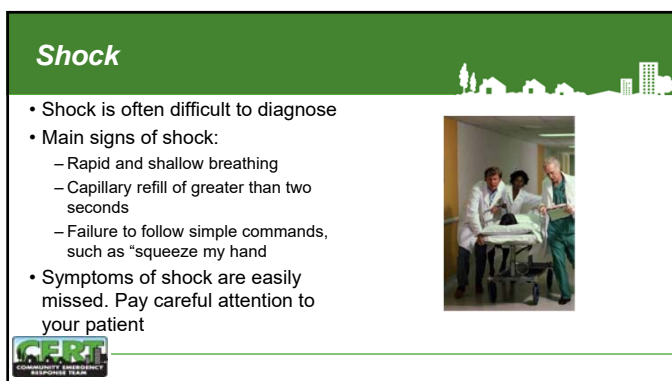
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Recognizing Shock

- Rapid Breathing
 - >30 breaths per minute (very shallow)
- Inadequate circulation
 - Capillary blanch >2 seconds
- Mental Status
 - Unconscious, or
 - Unable to follow simple command, “squeeze my hand”

Symptoms of shock are easily missed... pay careful attention to your patient!




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Treating Shock

- Lay victim on back
 - Maintain open airway
- Elevate feet
- Control bleeding
- Maintain body temperature

BODY POSITIONING FOR SHOCK




Normally, the lower extremities should be elevated. By gravity this will reduce the blood in the extremities and may improve the blood supply to the heart. If the patient has leg fractures, the legs should not be elevated unless they are well splinted.

If there are indications of head injury, the head should be raised slightly to reduce pressure on the brain. The feet may also be elevated. The head should not be elevated if there is fracture of the thorax.

If there are breathing difficulties, the patient may be more comfortable with the head and shoulders raised, that is, in a semi-sitting position.

If the patient is unconscious, she should be placed on her side in some position.

If circumstances indicate, the individual should be left in the position found.



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Triage

PERFUSION


- Radial Pulse Present
- Radial Pulse Absent
 - Capillary Refill
 - Over 2 Seconds
 - Under 2 Seconds

MENTAL STATUS

- Can't Follow Simple Commands
- Can Follow Simple Commands

IMMEDIATE (Red box) | **DELAYED** (Yellow box)




Respirations 30
 Perfusion 2
 Mental State CAN DO



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Burns


- Causes
 - Heat
 - Radiation
 - Chemical
 - Electrical current

Sun Burn

Electrical Burn



Chemical Burn



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Burn Severity




- Factors that affect burn severity:
 - Temperature of burning agent
 - Period of time survivor exposed
 - Area of body affected
 - Size of area burned
 - Depth of burn

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Burn Classifications


Classification	Skin Layers Affected	Signs
1 st Degree	*Epidermis (superficial)	*Reddened, dry skin *Pain *Swelling (possible)
2 nd Degree	*Epidermis *Partial destruction of dermis	*Reddened, blistered skin *Wet appearance *Pain *Swelling (possible)
3 rd Degree (Full Thickness Burns)	*Complete destruction of epidermis and dermis *Possible subcutaneous damage (destroys all layers of skin and some or all underlying structures)	*Whitened, leathery, or charred (brown or black) *Painless or relatively painless

1st Degree

2nd Degree



3rd Degree



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Treatment for Chemical Burns

- Remove cause of burn and affected clothing or jewelry
- If irritant is dry, gently brush away as much as possible
 - Always brush away from eyes, survivor, and yourself
- Flush with lots of cool running water
- Apply cool, wet compress to relieve pain
- Cover wound loosely with dry, sterile or clean dressing



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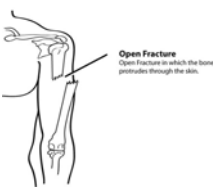
Fractures, Dislocations, Sprains, Strains

- Immobilize injury and joints immediately above and below injury site
- If uncertain of injury type, treat as fracture

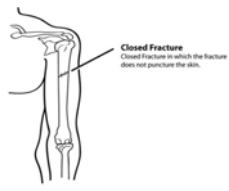


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Types of Fractures



Open Fracture
Open Fracture in which the bone protrudes through the skin.




Closed Fracture
Closed Fracture in which the fracture does not pierce the skin.




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Types of Fractures



Displaced Fracture
Displaced fracture in which the fractured bone is no longer aligned.

Nondisplaced Fracture
Nondisplaced fracture in which the fractured bone remains aligned.



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Treating Open Fractures


- Do not draw exposed bone ends back into tissue
- Do not irrigate wound
- Cover wound with sterile dressing
- Splint fracture without disturbing wound
- Place moist dressing over bone end



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Dislocations


- Dislocation is injury to ligaments around a joint
 - It is so severe that it permits separation of bone from its normal position in a joint
- Treatment:
 - Immobilize; do NOT relocate
 - Check Pulse, Movement, and Sensation (PMS) before and after splinting/immobilization



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Signs of Sprain

- Tenderness at site
- Swelling and bruising
- Restricted use or loss of use



49


Splinting



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Providing Comfort

- What can you do?
 - Keep them warm
 - Offer a hand to hold
 - Maintain eye contact
 - Be patient and understanding
 - If you have to move on to provide aid to another person, let them know



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