

# Disaster Medical Operations — Part 1



## CERT Basic Training Unit 3

# Assumptions

- Need for CERT members to learn disaster medical operations is based on two assumptions:
  - Number of victims could exceed local capacity for treatment
  - Survivors will assist others
    - They will do whatever they know how to do
    - They need to know lifesaving first aid or post-disaster survival techniques

# Importance of Quick Action

- Phase 1: Death within minutes, result of severe trauma
- Phase 2: Death within several hours, result of excessive bleeding
- Phase 3: Death in several days or weeks, result of infection

# CERT Training

- Treatment for life-threatening conditions
  - Airway obstruction, bleeding, shock
- Treatment for other, less urgent conditions

*Provide greatest good for greatest number  
by conducting simple triage  
and rapid treatment*

# START

- S**T**art = Simple Triage
  - Victims sorted based on priority of treatment
- s**t**ART = And Rapid Treatment
  - Rapid treatment of injuries assessed and prioritized in first phase

# Unit Objectives

- Identify “killers”
- Apply techniques for opening airway, controlling bleeding, and treating for shock
- Conduct triage under simulated disaster conditions

# Unit Topics

- Treating life threatening injuries
- Triage



# Three “Killers”

- Emergency medicine “killers”
  - Airway obstruction
  - Bleeding
  - Shock
- First priority of medical operations:
  - Open airway
  - Control excessive bleeding
  - Treat for shock

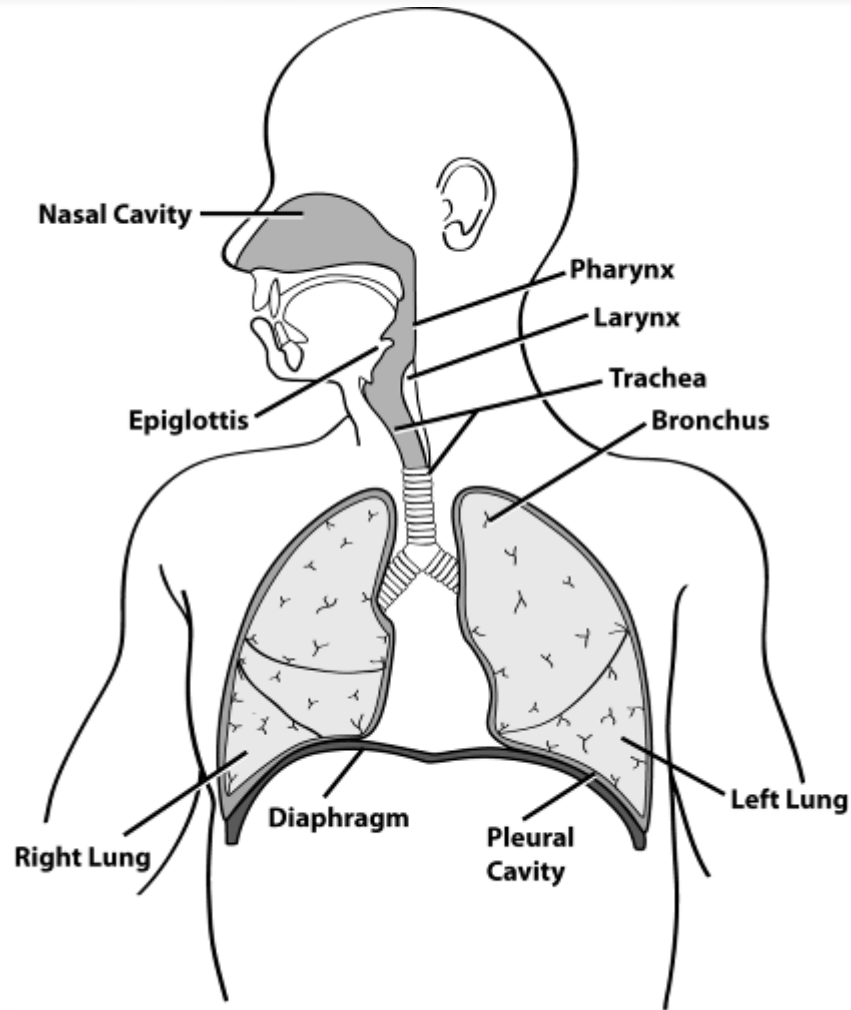


# How to Approach a Victim

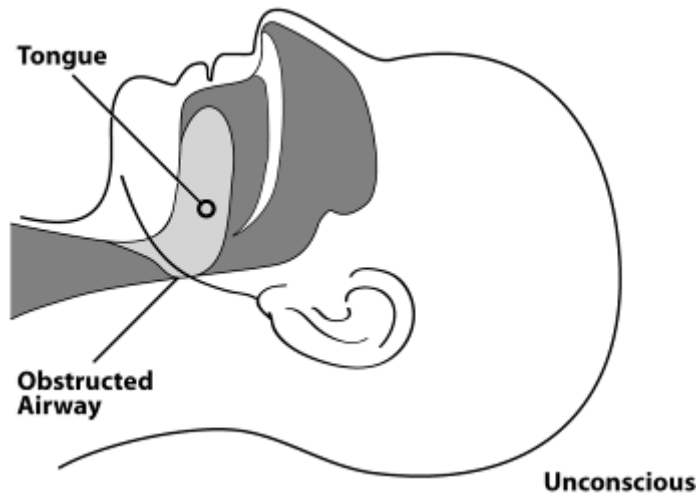
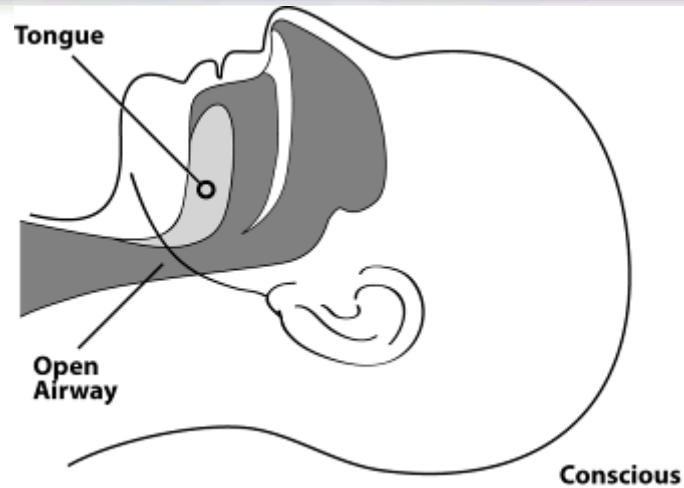
- Be sure victim can see you
- Identify yourself
  - Your name and name of your organization
- Request permission to treat, if possible
- Respect cultural differences



# Open the Airway



# Open vs. Obstructed Airway



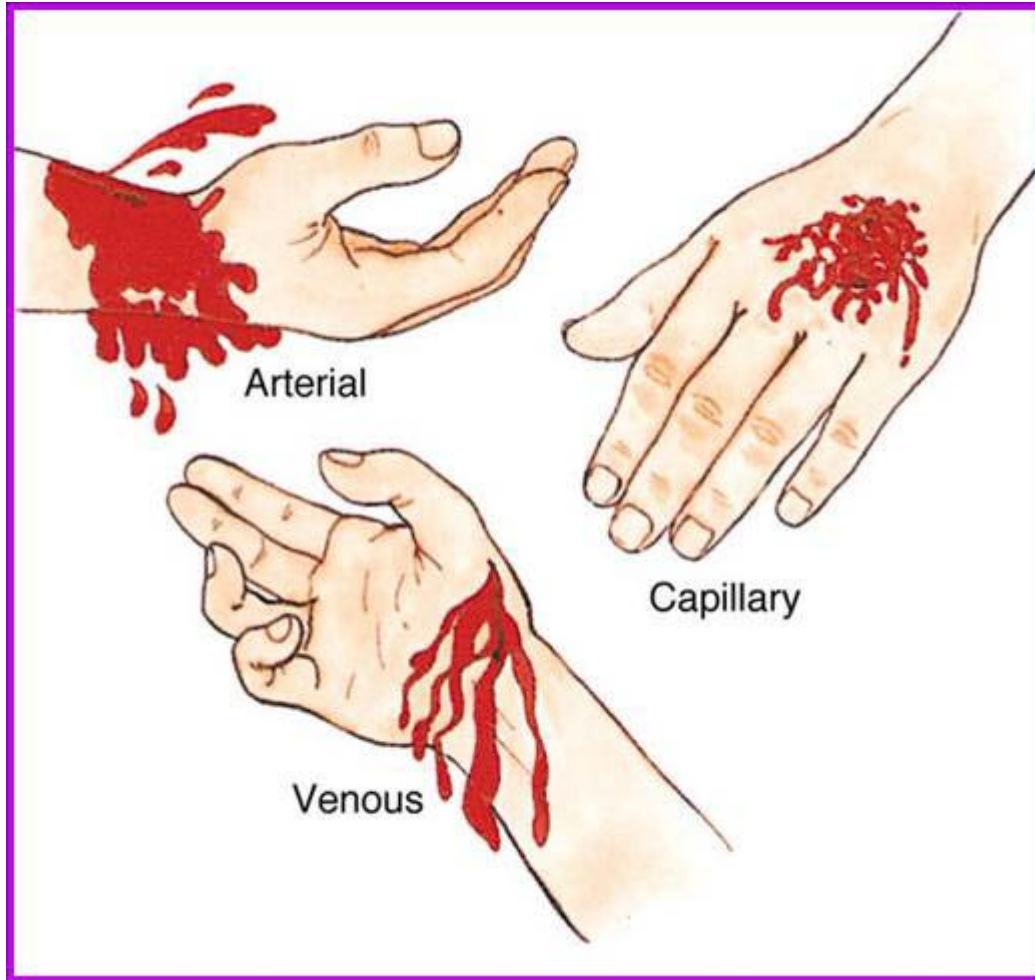
# Head-Tilt/Chin-Lift Method



# Types of Bleeding - 1

- Arterial bleeding
  - Bleeding from artery spurts
- Venous bleeding
  - Bleeding from vein flows
- Capillary bleeding
  - Bleeding from capillaries oozes

# Types of Bleeding - 2



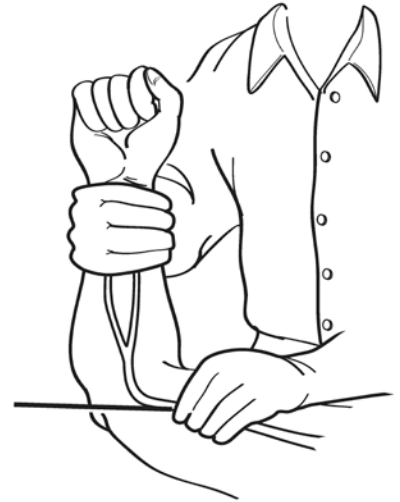
# Control Bleeding

- 3 main methods for controlling bleeding:
  - Direct pressure
  - Elevation
  - Pressure points

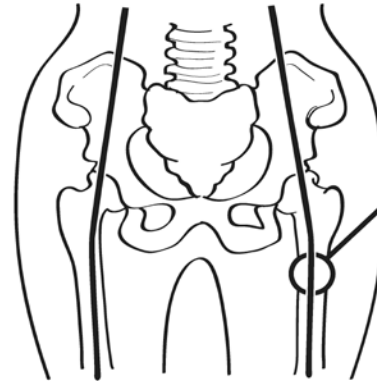


# Pressure Points

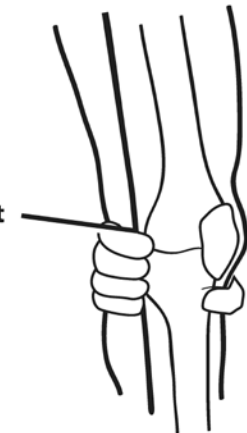
**Brachial Pressure Point**  
just above the elbow



**Femoral Pressure Point**  
in the Upper thigh



**Popliteal Pressure Point**  
behind the knee





# Shock

- Result of ineffective circulation of blood
- Remaining in shock will lead to death of:
  - Cells
  - Tissues
  - Entire organs



# Recognizing Shock

- Main signs of shock
  - Rapid and shallow breathing
  - Capillary refill of greater than 2 seconds
  - Failure to follow simple commands, such as “Squeeze my hand”
- Symptoms of shock are easily missed...  
pay careful attention to your patient!

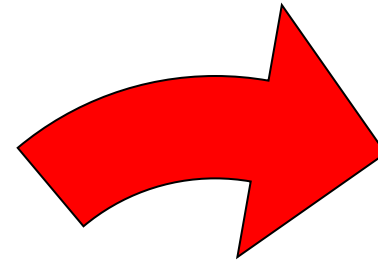
# Responding to Mass Casualty Event

- Have a plan
- Follow that plan
- Document your actions throughout

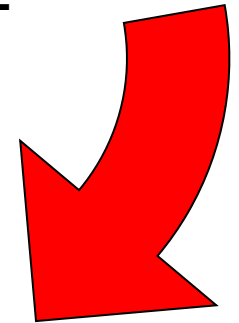
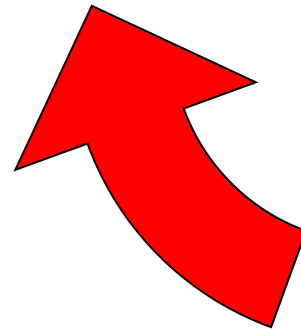


# CERT Sizeup

1. Gather Facts
2. Assess Damage
3. Consider Probabilities
4. Assess Your Situation
5. Establish Priorities
6. Make Decisions
7. Develop Plan of Action
8. Take Action
9. Evaluate Progress



**REMEMBER:**  
CERT SIZEUP IS A  
CONTINUAL  
PROCESS



# What Is Triage?

- Process for managing mass casualty event
  1. Victims are evaluated
  2. Victims are sorted by urgency of treatment needed
  3. Victims are set up for immediate or delayed treatment

# Triage

- Immediate (I): Victim has life-threatening injuries (airway, bleeding, or shock)
- Delayed (D): Injuries do not jeopardize victim's life; treatment can be delayed
- Minor (M): Walking wounded and generally ambulatory
- Dead (DEAD): No respiration after two attempts to open airway

# Rescuer Safety During Triage

- If hazmat or terrorist event is suspected, CERT members DO NOT respond
  - Evacuate as safely as possible
- ALWAYS wear PPE:
  - Helmet
  - Goggles
  - N95 mask
  - Work gloves
  - Sturdy shoes or boots
  - Non-latex exam gloves

# Triage Process

- Step 1: Stop, Look, Listen, and Think
- Step 2: Conduct voice triage
- Step 3: Start where you stand; follow systematic route
- Step 4: Evaluate each victim and tag
- Step 5: Treat “I” victims immediately
- Step 6: Document triage results



# Step 4: Triage Evaluation

- Check airway and breathing
- Check circulation and bleeding
- Check mental status

# Triage Pitfalls

- No team plan, organization, or goal
- Indecisive leadership
- Too much focus on one injury
- Treatment (rather than triage) performed



# Unit Summary

- You should now be able to:
  - Identify 3 “killers”
  - Apply techniques for opening the airway, controlling bleeding, and treating for shock
  - Conduct triage under simulated disaster conditions



# Homework Assignment

1. Read unit to be covered in next session
2. Bring necessary supplies for the next session
3. Wear appropriate clothes for the next session