



San Mateo Consolidated Fire Department Community Emergency Response Team Online CERT Course – Study Guide UNIT 3

Remember: These are actions in DISASTERS - when professional responders are stretched thin responding to multiple major issues due to an event affecting a wide area (earthquake, explosion, flood, wildfire, etc.) Under “normal” circumstances, you’d call 9-1-1 first and assist the injured person until professional responders arrive. But, here, we are learning about Disaster Medicine situations, when there are multiple victims, few CERTs, and professional responders may not be readily available.

Unit 3 – Disaster Medical Part 1 is made up of 3.1 and 3.2 in Online CERT.

Disaster Medical Operations Unit 3.1

- CERT members are taught to: control bleeding, maintain a normal body temperature, position a patient so they can breathe, and recognize shock
 - Am I safe?
 - Do I have proper PPE?
 - Approaching the patient
 - If patient is conscious, be sure they can see you as you approach
 - Introduce yourself and your organization (Hi, I’m Giselle with CERT. I’m here to help.)
 - Request permission; if they are unconscious, it is implied
 - (Is it OK if I touch you to check your head? Arm?)
 - Respect cultural differences
 - Confidentiality
- Types of bleeds: arterial, venous, capillary (average adult has 5 liters of blood)
 - Knowledge check: pictures of bleeds: capillary (road rash), venous (pooling), arterial (spurting or spewing)
 - Control bleeding
 - Direct pressure
 - Tourniquet
- Shock
 - Rapid, shallow breathing: 30 + breaths/minute
 - Weak or absent radial pulse
 - Capillary refill takes more than 2 seconds
 - Cannot follow simple commands

- How to control:
 - Maintain an open airway – head tilt, chin lift or jaw thrust (unconscious), tripod position (conscious), recovery position (conscious)
 - Control excessive bleeding
 - Maintain body temperature – blanket over and below patient, remove wet clothing; shield person from wind
- Recovery position Knowledge check
 - Put body on side
 - Bottom arm
 - Top arm
 - Head – rest on hand
 - Legs – bent slightly
 - Chin – raised forward
 - Mouth – pointed downward
- RECOVERY POSITION – is if person is unconscious. Never leave them alone. Recovery position is to make them comfortable, allow them to breathe, and to easily expel anything that may come up.

- Providing comfort
 - Ask simple questions
 - Listen
 - Provide information (that you know, don't speculate)
 - Keep them warm
 - Offer a hand to hold (you're wearing gloves, change gloves between patients)
 - Maintain eye contact
 - Be patient and understanding
 - If you have to move on to another patient, let them know

- Test
 1. Most difficult bleed to control – arterial
 2. An effective method to control severe bleeding: tourniquet, dressings, “presion directa” (direct pressure)
 3. Most common obstruction of airway – tongue
 4. Shock
 - Capillary refill – greater than 2 seconds
 - Can lead to death
 - Patient dazed and confused
 - Result of poor blood circulation
 5. 3 types of bleeding: arterial, venous, capillary

Disaster Medical Operations – Unit 3.2

- Burns: prevent hypothermia, manage pain, reduce the risk of infection
- Burn types
 - First degree: superficial
 - Second degree: partial thickness
 - Third degree: full thickness
- Burn do's and don'ts

- Burn knowledge check:
 - Superficial – red, no blisters
 - Partial thickness – blisters
 - Full thickness – black
- Chemical burns
- Bandaging wounds
- Signs of infection
- Amputations
- Impaled objects
- Fractures, dislocations, sprains, and strains
- Open / closed fractures – knowledge check
 - Closed fracture - no broken skin
 - Open fracture – bone sticking out
- Displaced and non-displaced fractures
- Dislocations
- Sprain or strain
- Splint
 - Support injury above and below the injury
 - Assess PMS in extremities (Pulse, Movement, Sensory)
 - Splint injury in position found
 - Do not try to realign bones
 - Fill voids
 - Immobilize above and below the injury
 - After splinting, reassess PMS
- Nasal Injuries
- Hypothermia
 - Body temperature of 95 degrees Fahrenheit or lower
 - Redness / blueness of skin
 - Numbness / shivering
 - Slurred speech
 - Unpredictable behavior
 - Listlessness
- Treatment
 - Remove wet clothing
 - Place something between patient and ground
 - Wrap in dry layers
 - Cover head and neck
 - Shield patient from the weather
 - Do not massage
- Frostbite
 - Skin discoloration
 - Burning or tingling sensation
 - Partial / complete numbness
- Treatment
 - Warm slowly
 - Do not refreeze
 - Do not massage
 - Wrap in dry, sterile dressing
- Hypothermia / Frostbite Knowledge check
 - Hypothermia: low body temperature, slurred speech, listlessness, redness of skin, shivering
 - Frostbite: partial numbness, skin discolorations, tingling sensation
- Heat related injuries

- Heat cramps
- Heat exhaustion
 - Cool, moist, pale, flushed skin
 - Heavy sweating
 - Headache
 - Nausea or vomiting
 - Dizziness
 - Exhaustion

- Heat stroke
 - Hot, red skin
 - Lack of perspiration
 - Changes in consciousness
 - Rapid, weak pulse and rapid, shallow breathing
 - High temperature (105 degrees F)

- Treatment for heat-related injuries
 - Remove from heat to a cool environment
 - Cool the body slowly
 - Have the patient drink water, slowly
 - No food, or drink if the victim is vomiting, cramping or losing consciousness

- Bites / Stings
 - Anaphylaxis may result
 - Keep patient calm
 - Remove constrictive clothing, jewelry
 - Help victim with their own EpiPen
 - Watch closely and seek professional medical help ASAP

- Test
 1. True – brush away dry chemicals for chemical burns
 2. Treatment for frostbite: warm body slowly
 3. False - When bandage becomes soaked with blood, do not remove bandage
 4. True – use credit card to remove stingers
 5. False – do not use ice, antiseptics, ointments, etc. for burns; do not break blisters; do not remove shredded clothing that is stuck to body
 6. True - Hypothermia – temperature below normal; frostbite – shuts down blood flow
 7. Infection – swelling around a wound; discharge from a wound; red striations from the wound site
 8. Heat exhaustion – pale or flushed skin, heavy sweating, dizziness, exhaustion
 9. Life threatening allergic reaction: anaphylaxis
 10. Heat stroke – hot, red skin; shallow breathing, changes in consciousness
 11. Foreign object – do not move or remove the object