Chapter 12: Treatment of the Unconscious Athlete

Objectives
- Discuss general principles of on-the-field emergency care
- Discuss the primary survey
- Discuss the challenges faced by the ATC when dealing with the unconscious athlete
- Discuss the procedures for professional rescuer CPR

Principles of On-the-Field Injury Assessment
- Determine nature/severity of injury
- Make decisions regarding direction of treatment
- Divided into primary and secondary survey

Primary Survey
- Athletic trainer must be able to triage injuries
- Life threatening injuries treated first
  - Those injuries requiring CPR, profuse bleeding and shock

Steps of Primary Survey
- Establish level of consciousness
  - Gently shake and ask athlete “Are you okay?”
  - If no response, EAP should be activated
  - Positioning of body should be noted and adjusted in the event CPR is necessary
- Establish status of ABCs
  - If no breathing, open airway
  - If no pulse, call for AED, begin CPR
  - If athlete is breathing and has a pulse, check for severe bleeding

Steps of Primary Survey
- Equipment
  - Equipment may compromise lifesaving efforts but removal may compromise situation further
  - Facemask should be removed using appropriate clip cutters (Anvil Pruner, Trainer’s Angel, FM Extractor)
  - Use of pocket mask/barrier mandated by OSHA during CPR to avoid exposure to bloodborne pathogens
Secondary Survey
- Performed once life-threatening conditions ruled out
- Gathers specific information about injury
- Assesses vital signs and performs a more detailed evaluation of conditions that don’t pose life-threatening consequences

Dealing with the Unconscious Athlete
- Presents dilemma for the athletic trainer
- Athletic trainer must assume the athlete/patient has a life-threatening condition until proven otherwise

Dealing with the Unconscious Athlete
- Note body position and level of consciousness
- Check and establish airway, breathing, circulation (ABC)
- Assume cervical spine injury until proven otherwise

Dealing with the Unconscious Athlete
- With athlete supine and not breathing:
  - ABC’s should be established immediately
  - If athlete supine and breathing:
    - nothing should be done until consciousness resumes*
    - Monitor vitals

*The facemask should be removed from the unconscious, breathing football athlete in case the athlete stops breathing.

Dealing with the Unconscious Athlete
- If prone and not breathing:
  - log roll and establish ABC’s
- If prone and breathing:
  - nothing should be done until consciousness resumes – then carefully log roll and continue to monitor ABC’s*

*The unconscious, breathing football athlete should be log rolled and the face mask removed in case the athlete stops breathing.

Dealing with the Unconscious Athlete
- Life support should be monitored and maintained until emergency personnel arrive
- Once stabilized, a secondary survey should be performed
**Review of CPR procedures**

- ABC's of CPR
  - A - airway opened
  - B - breathing restored
  - C - circulation restored
  - Generally when A is restored B & C will follow

**Opening the Airway**

- Head-tilt, chin lift method
- Push down on the forehead and lifting the jaw moves the tongue from the back of the throat

**Opening the Airway**

- Modified technique should be used when neck injury is suspected
- Modified jaw thrust maneuver

**Establishing Breathing**

- Look, listen and feel
- Take deep breath, administer 2 slow breaths (raise chest 1.5-2"

**Establishing Breathing**

- If breath doesn’t go in, re-tilt and ventilate
- If breath still does not go in, abdominal thrusts and look for object in airway (perform finger sweep only if object is visible)

**Establishing Breathing**

- A bag-valve mask can provide a higher percentage of O₂ to the patient
  - Rescue breathing – 16% O₂
  - Bag-valve mask – 21% O₂
Restoring Circulation
- Artificial chest compressions
  - Locate margin of ribs and xiphoid process of sternum
  - Two fingers width above xiphoid process, place heel of hand on lower portion of sternum
  - Place other hand on top with fingers parallel of interlocked

- Keep elbows locked with shoulders directly above patient
- Compress chest 1.5-2” (15 times per 2 breaths)
- After 4 cycles reassess pulse (if not present continue cycle)

Restoring Circulation
- Survival rate much greater with use of an AED
- CPR can help circulate oxygenated blood to the brain & other organs – BUT may not correct the underlying cardiac problem

- Cardiac Chain of Survival
  - early recognition & access to EMS
  - early CPR
  - early defibrillation
  - early advanced life support (ALS)

Restoring Circulation
- Many times, the heart does not stop completely, but instead goes into a state of fibrillation or quivering (V-fib or ventricular fibrillation)
  - results in no circulation no pulse

- Use of automated external defibrillator (AED) can restore normal heart rhythm
  - restore circulation
  - restore pulse
Restoring Circulation

- Turn on AED
- Wipe chest dry
- Place one pad on upper right chest
- Place second pad on lower left chest (apex of heart)
- Plug electrode cable into AED

- Make sure no one is touching victim
- Say “everyone stand clear”
- Press analyze button
- If shock is advised, again say “everyone stand clear”
- Press shock button

Professional Rescuer CPR

- Two health care professionals performing CPR
  - Rescuer #1
    - assesses ABCs
    - provides artificial respirations
  - Rescuer #2
    - Provides artificial compressions

- More efficient
- Less tiring than 1 person CPR

- Change positions when Rescuer #2 becomes fatigued
- Change Protocol
  - Rescuer 2 calls for position change (use change in place of “fifteen” in compression cycle
  - Rescuer 1 complete his/her two breaths
  - Rescuer 2 moves to victims head, rechecks ABCs
  - Rescuer 1 moves into position for chest compressions
Professional Rescuer CPR

- As an athletic trainer, you will more likely be in a situation requiring 2 rescuer CPR than 1 rescuer CPR.
- You should be comfortable with these procedures – especially the change protocols.

Questions??