





Why we do what we do

On October 24,1971, Chuck Hughes of the Detroit Lions went across the middle on a pass play and collapsed. Legendary LB Dick Butkus frantically waved to the sideline for help. Despite the efforts of the training staff, he died of a "heart attack" and remains the only on field death in the history

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Learning Objectives

- Plan for the lifethreatening situations that arise in sports at all levels
- Understand the primary treatment and different options that exist for these scenarios
- Understand the capabilities of providers
- Know the most common scenarios and address these in your emergency action plan



ACLS, "ASLS" Advanced Sports Life Support

- Airway Direct vs Indirect injury
- Breathing Asthma / Anaphylaxis / Chest Trauma
- Cardiac Sudden Cardiac Arrest (irrespective of etiology)
- Circulation Abdominal Trauma / Sickle Cell Trait / Arterial Injury
- Cervical Spine High Cervical Spine Injury
- Concussion/Neuro Decreased or LOC and seizures
- Conditions/Environment Heat Illness, Stroke, Cold and Lightening
- Diabetes High or Low
- Other Behavioral Health and Drug Overdose



Emergency Action Planning

- Have an EAP that addresses situations that could lead to a death of the athlete
- Use the ABC's in "Advanced Sports Life Support" to write your EAP
- EAP needs to address all possible emergencies
- NATA Position Statement on Emergency Action Planning in Sports 2002
- Pre-game "medical time out" EAP discussion and review
- Practice !







Emergency Action Planning

Successful resuscitation

- Chris Pronger NHL 1998
- Fabrice Muamba EPL 2012
- Keyontae Johnson NCAAB '20
- Christian Erikson Euros 2021 •
- Damar Hamlin NFL 2023 •
- Josh Davis NCAAF 2023 •
- Bronny James NCAAB 2023 •

Unsuccessful resuscitation

- Hank Gathers NCAAB 1990
- Thomas Herrion NFL 2005
- Wes Leonard HSBB 2011
- Piermo Morosini Serie B 2012
- Matthew Mangine HSS 2020
- Baba Agbaje NCAAS 2023
- Arne Espeel Soccer 2023





Airway Evaluation

- ABC's
- Maintainable vs. Unmaintainable
- Is the Airway inadequate with basic support?
- Procedural intervention is therefore required
- You <u>must</u> remove the facemask to have unencumbered access to the airway
- Endotracheal intubation / LMA Airway / King Laryngeal Tube
- Require an Advanced Life Support EMS unit at high-risk events for the airway expertise when at all possible
- AED availability
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2012 DJ Hayden

Practice at the University of Houston

Did not appear to be a major blow

Complained of abdominal pain

Mike O'Shea, ATC – life saving decisions

Taken to Hermann trauma center

Severed inferior vena cava – never in football

Reported <10% survival rate







Cardiac Problems

- Cardiac Etiology
- Sudden Cardiac Death
- Arrhythmia of unknown etiology
- Hypertrophic cardiomyopathy
 - Heart Muscle becomes abnormally thick
- Commotio cordis
 - Direct Contact causes an abnormal heart rhythm (V-Fib). This is rare and has to occur at a critical time in the heartbeat
- Cardiac concussion/contusion
 - A bruise to the heart tissue, tissue damage
 (Ice Hockey, Lacrosse, Baseball & Football)
- Coronary artery disease in your coaches and our referees



























Concussion

- Clinical judgment determines the severity
- Most are not "catastrophic" or lifethreatening
- Do not allow the concussion to negate the validity of the C-Spine exam
- Always fear a concussion when paired with the C1/C2 fracture axial load with flexion
- If immobilizing, always remove the facemask even if the athlete is awake and talking
- A concussion and/or an airway can quickly deteriorate
- Monitor Closely



Concussion or Neurologic Related -Seizures

- When an athlete is seizing, think in order:
 - Cardiac arrest
 - Head injury
 - C-Spine injury
 - Diabetes
 - Epilepsy



Special Conditions and the Environment

- Lightning approximately 40 people die per year in the US from lightning
 - Previous data showed 15% of the deaths were related to organized athletics
- In 2006, 5 people died at a softball game
- Rosbin Yuman and Lester Marrioquin soccer players killed in 2001
- Have a lightening EAP
 NATA Position Statement
- Tend to the unconscious first they need more electricity (AED)!

















THANK YOU !