

# ***"Coach, My Neck Hurts!"***

***Care of the Spinal Injured Football Player***



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# Introduction

- Cervical Spine Injuries – Catastrophic, Devastating
- Learning how to care for the potentially spine injured football player is essential for all health care providers involved.



# So, what is an ATC?

## Certified Athletic Trainers

- College grads
- NATA BOC
- Licensed in Virginia
- Specialize in:
  - ★ Injury prevention
  - ★ Recognition
  - ★ Evaluation
  - ★ Treatment
  - ★ Rehabilitation
  - ★ Mass chaos!



# Why are we here?

## Spine injuries in FB



# Why are we here?

## Football players like to hit hard!

### ■ 2005-06 – 9 high school sports studied

- ✱ higher injury rates and greater proportions of head/face/neck injuries, concussions, and severe injuries in *competitions*.

- ✱  had the highest injury rates

### ■ 1977-2005 Nationally

- ✱ *256 CSI in football – Rec. league ➔ Pro.*
- ✱ *211/256 – high school*

# Eric LeGrand Injury



# Recommended practices

**1998**

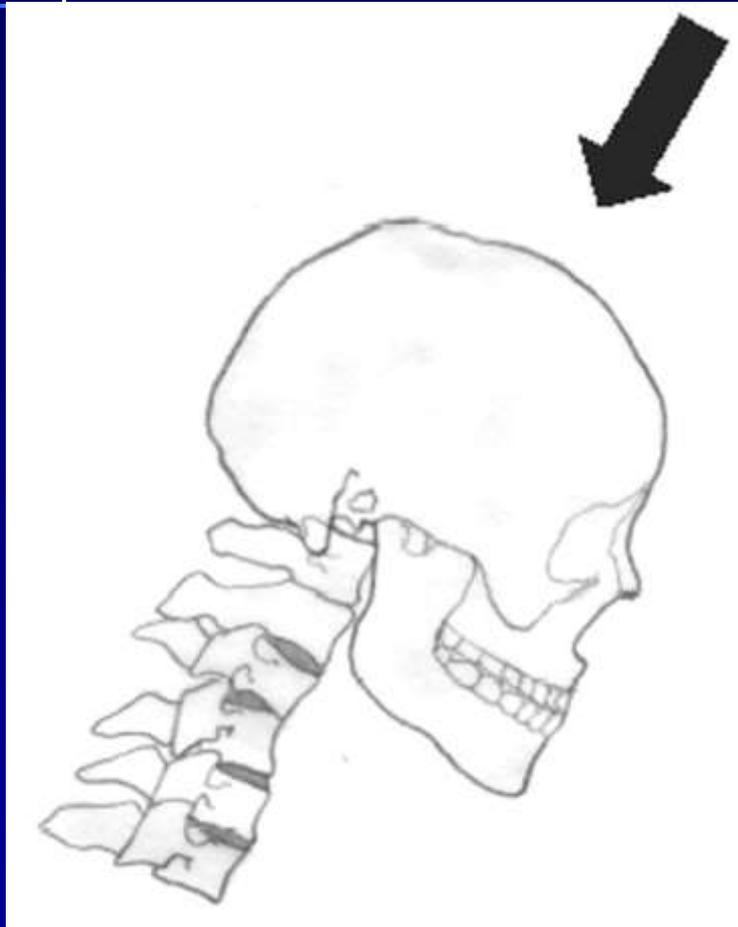
- Inter-Association Task Force for Spine Injured Athlete
- Experts from across the medical spectrum.
- 2001 –“Pre-Hospital Care of the Spine Injured Athlete”
- Script available @ CSEMS website...  
<http://csems.vaems.org/downloads/>

## Prehospital Care of the Spine-Injured Athlete



A Document From  
the Inter-Association  
Task Force For  
Appropriate Care of  
the Spine-Injured Athlete

# Cervical Spine Injuries



## Common MOI

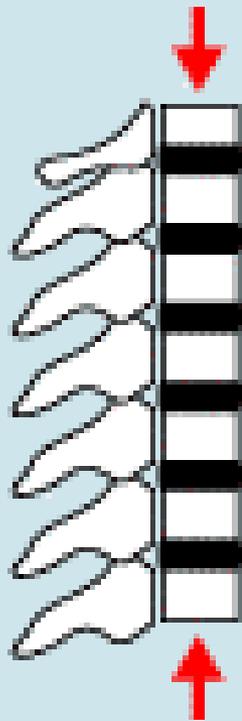
- Axial Loading
  - ✱ Head down contact (Spearing)
  - ✱ 1976 rule change made spearing illegal

# Cervical Spine Injuries

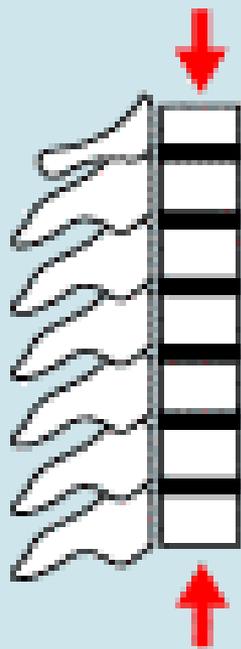
## ■ Axial Loading

- ✱ **1976** rule change made intentional spearing illegal
- ✱ **2005** rule change made unintentional spearing (ANY use of helmet, including facemask to butt or ram the opponent) illegal
- ✱ **STILL OCCURS!**

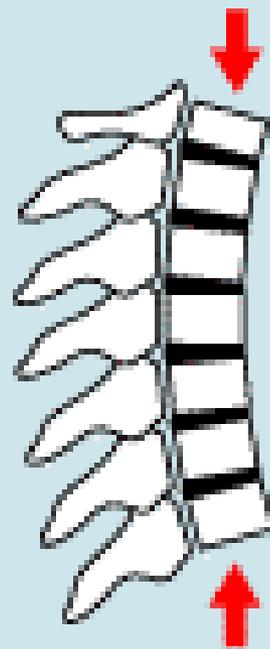
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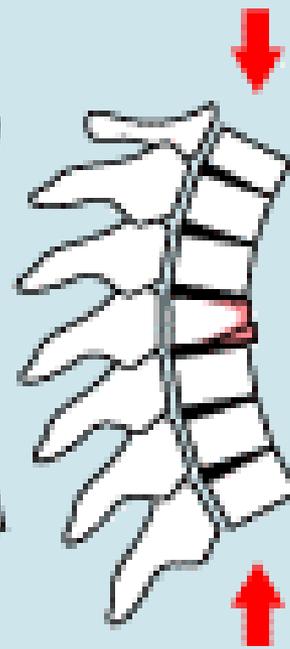
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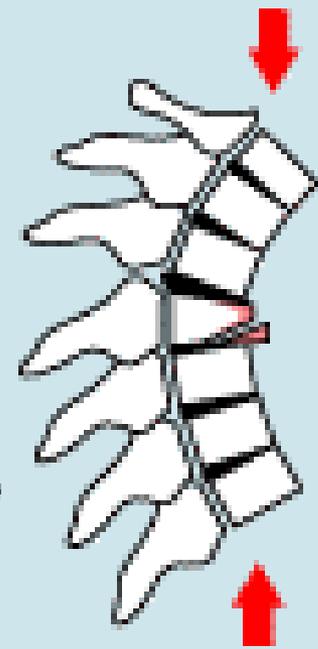
**c**

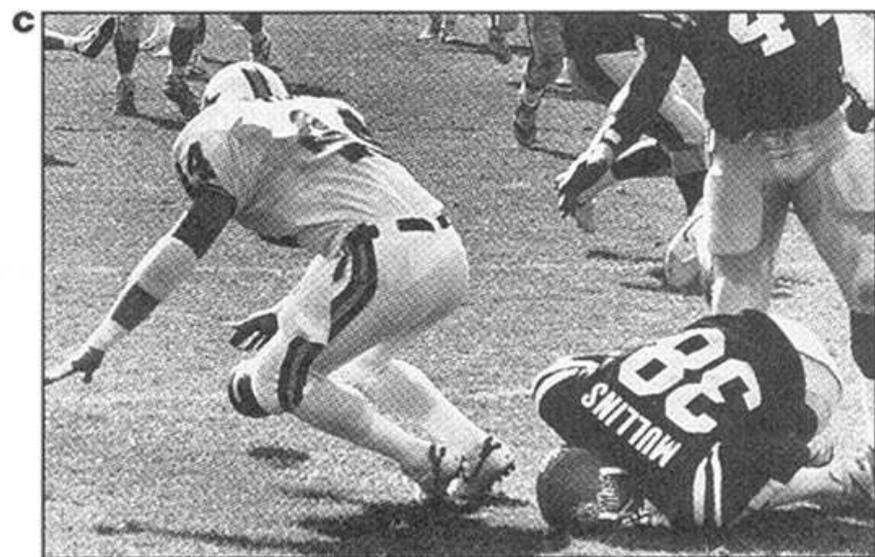
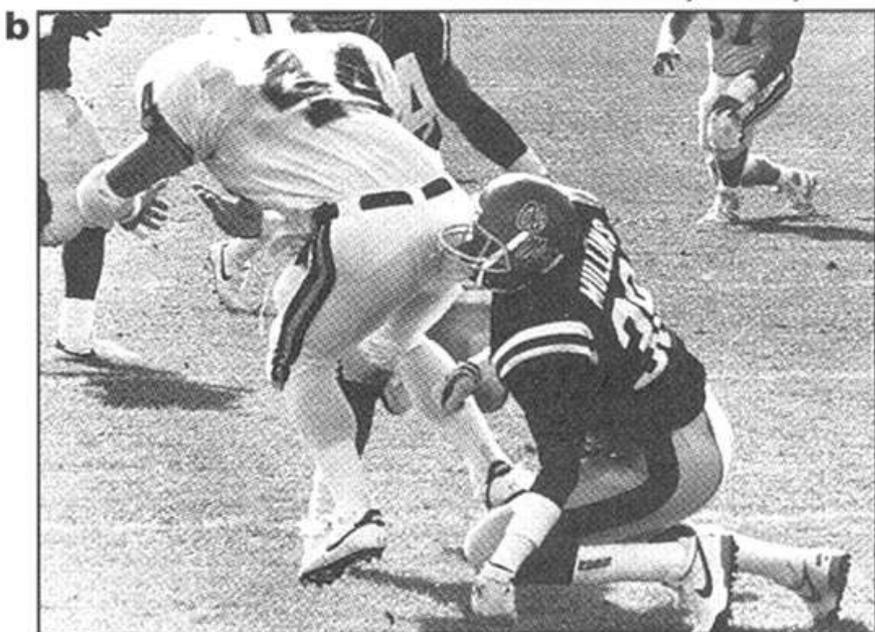
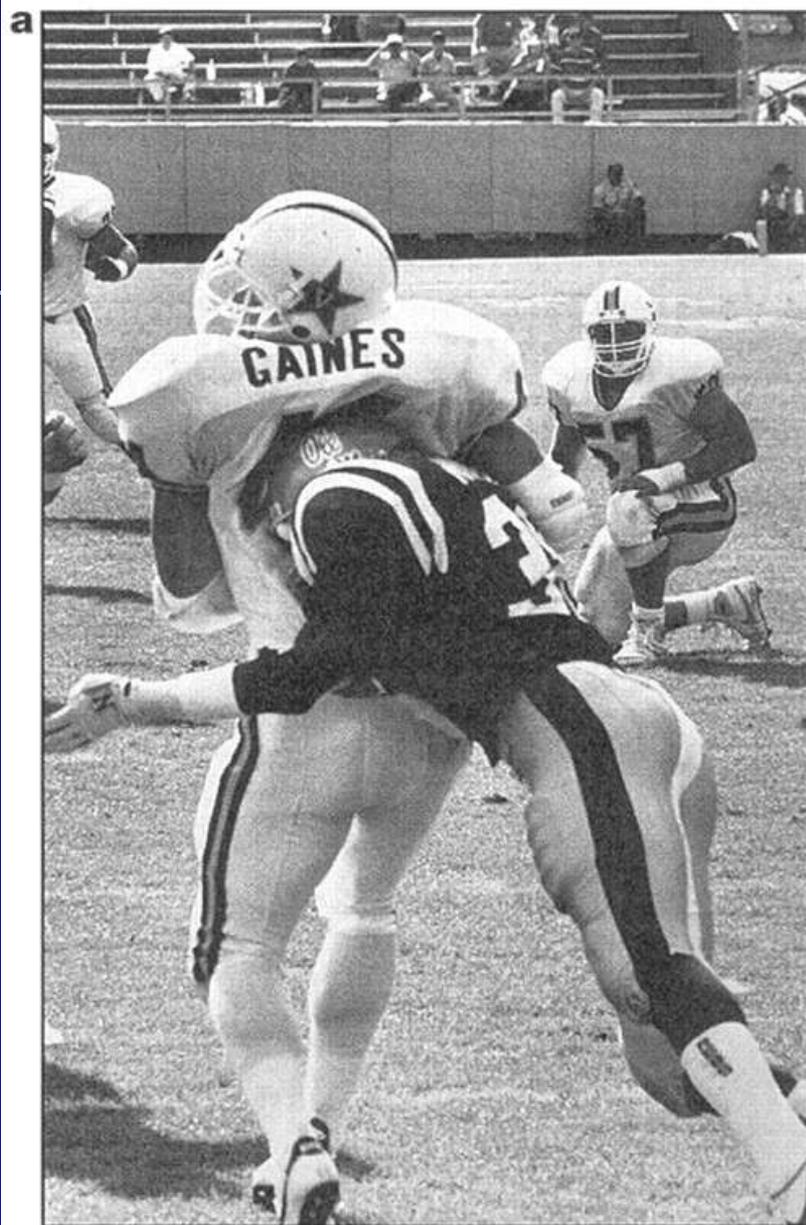


**d**



**e**

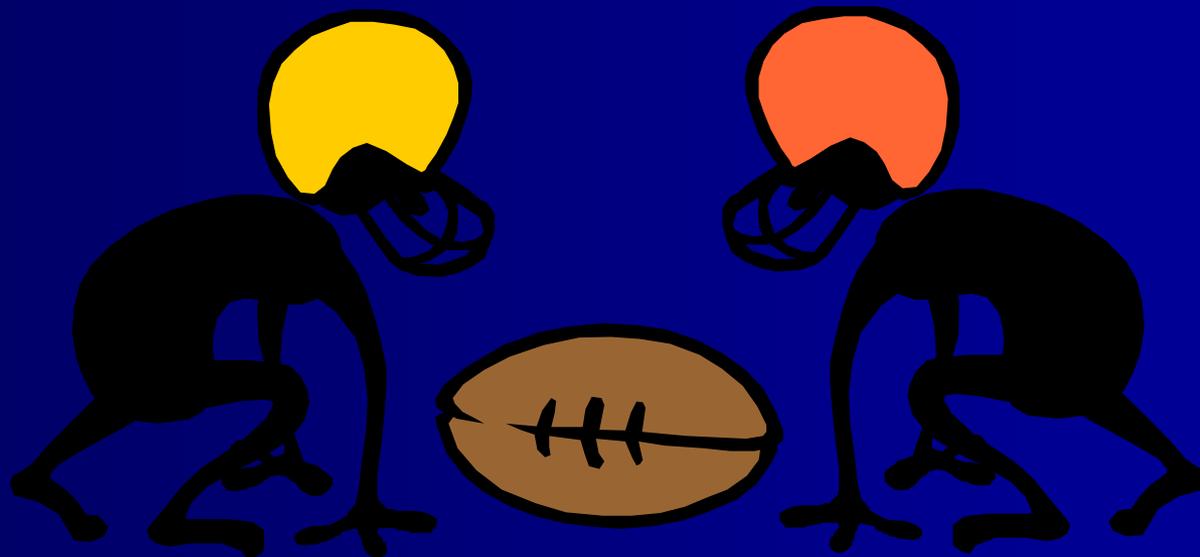




# Protect that Noggin!

**Football helmets just aren't the same as other helmets**

- designed to fit snug to protect the head from repetitive collisions







5 Stars: Best Available



Riddell 360

STAR Value: 0.239

Cost: \$374.95



Rawlings Quantum Plus

STAR Value: 0.245

Cost: \$250.00



Riddell Revolution Speed

STAR Value: 0.297

Cost: \$243.99

4 Stars: Very Good



Schutt ION 4D

STAR Value: 0.351

Cost: \$259.95

# Ouch, my neck hurts!

**Assume there is a spine injury until proven otherwise**

- Scene Size-up
- Cervical Spine Immobilization
- Primary Assessment
  - ✦ LOC, ABC's
- Assess neurological status

# Ouch, my neck hurts!

- Leave the helmet in place if securely fitted to the head (leave the shoulder pads as well)
- Remove the face mask completely regardless of current respiratory status

# Ouch, my neck hurts!



## Face Mask Removal

- ✦ Have proper tools available
- ✦ Various tools – I suggest having a variety

**A.** Modified PVC pipe cutters

**B-D.** Various Pruners

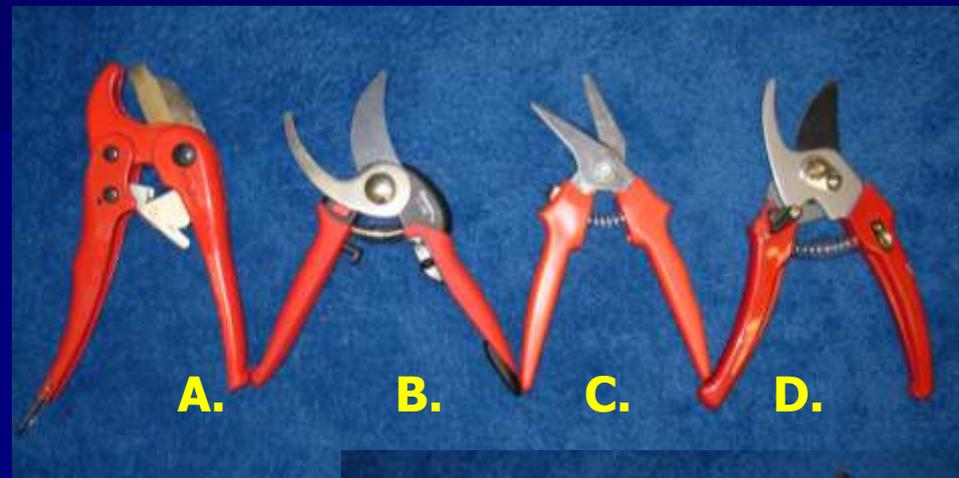
**E.** Florian Tool

**F.** Trainer's Angel

**G.** FM Extractor

**H.** Screwdrivers

- Manual or Power
- Flat and Phillips



# Removing the facemask

**C-spine stabilization is key!**

- ✚ Cut/remove all 4 clips holding face mask in place



# Immobilization of the athlete

## Once face mask is removed

- Prepare immobilization equipment
- 6+ person lift to move athlete to board
  - ☀ 1 at the head
    - ❖ Hands placed on athlete's shoulders (under the pads), thumbs pointed away from athlete's face
    - ❖ Athlete's head then rests between rescuer's forearms
  - ☀ 1 on each side of shoulders – slide hands beneath scapulae & ribs

# Immobilization of the athlete

- 6+ person lift to move athlete to board
  - ✱ 1 on each side of hips – slide hands beneath lower back & buttocks
  - ✱ 1 on each side of legs – slide hands beneath thigh & low leg
  - ✱ 1 person to slide board beneath patient

# Immobilization of athlete

- 6+ person lift continued
  - ✱ Upon command of head, lift athlete 4-6"
  - ✱ Slide board beneath patient from feet
  - ✱ Upon command of head, lower athlete to board
  - ✱ Secure to board with straps

# 6+ Person Lift Method



# Helmet & Shoulder pads

## When to remove Helmet & Chin Strap

### Removed only if

- ✱ they do not hold the head securely
- ✱ design of the helmet & chin strap prevents adequate airway control
- ✱ face mask cannot be removed in a reasonable amt. of time
- ✱ helmet prevents adequate immobilization



# Removing the helmet



**C-spine  
stabilization is  
key**

- place hands on the chin and back of the head

# Removing the helmet

- cut the chin strap, deflate air padding
- use 2 tongue depressors or flat blade to unsnap & remove cheek pads
- rotate posterior aspect of helmet off occiput then pull helmet off head
- DO NOT spread sides of helmet to remove

# Keep the spine in line!

- the helmet & shoulder pads elevate the trunk when supine
  - ✱ Should either be removed, spinal alignment must be maintained





# Helmet & Shoulder pads

## Shoulder pad removal

- Removal recommended when
  - ✱ Helmet is removed
  - ✱ Multiple injuries requiring full access to shoulder area
  - ✱ Ill-fitting shoulder pads cause inability to maintain spinal immobilization



# Shoulder pad removal

## To remove

- ✱ Cut jersey off, laces over sternum, and straps
- ✱ C-spine control from front (cephalad direction)
- ✱ 6+ person lift on command of head
- ✱ Flip right & left sides of pads up past the head and slide them out from under the torso
- ✱ Slide board beneath patient
- ✱ Lower onto board upon command of head

# Schutt Ion Helmet



CUT TOP  
CLIPS



# Schutt Ion helmet

ion 4d football helmet faceguard  
removal 4pt high chin strap yo  
utube.avi

# Summary

## Practice, practice, practice!

- These skills are not easy to perform efficiently.
- Practice improves efficiency



# References



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