

Emergency Procedures for the
Sports Chiropractor

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Module 2

1

Unresponsive Victim

- Unresponsive Victim:
 - Ensure the scene is safe before approaching.
 - Establish Unresponsiveness by tapping the shoulder. Tap both shoulders and shout at victim, "Are you Alright, Are you OK?"
 - Call for Help, ask for AED and tell person to return with response of 9-1-1 operator.
 - Check for Breathing and Pulse (Carotid), NO less than 5 seconds – No more than 10 seconds
 - Infants & Small Children, check for stomach rise as well.

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Unresponsive Victim

- Unresponsive Breathing Victim
 - Do physical exam with continuous monitoring of breathing.
 - Assist breathing if needed.
 - Apply supplemental oxygen.
 - Treat any obvious injuries
 - Transport

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Unresponsive Victim C-A-B

■ C-A-B

- Compressions
- Airway
- Breathing



4

Unresponsive Victim

■ C-A-B

- Compressions
 - Adults (Showing the signs of puberty and older)
1 or 2 rescuer CPR 30 Compressions
 - Children (Ages 1 to the signs of puberty)
1 rescuer CPR 30 Compressions
2 Rescuer CPR 15 Compressions
 - Infants (Under the Age of 1)
1 rescuer CPR 30 Compressions
2 Rescuer CPR 15 Compressions

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Unresponsive Victim

■ C-A-B

- Airway
 - Perform a Head-Tilt, Chin Lift.
 - If you suspect a Neck or Back Injury, perform a Jaw-Thrust Maneuver

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Unresponsive Victim

■ C-A-B

■ Breathing

- Give 2 Breaths, observing chest rise
- If breaths do not go in, re-tilt the head and attempt a second breath.
- If second breath goes in, DO NOT attempt a third breath but resume compressions.
- If the second breath does NOT go in, resume compressions

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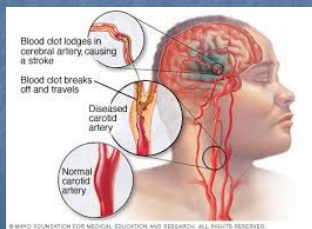
Stroke

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Stroke

- A stroke is defined as acute impairment of neurologic function that results from an interruption of cerebral blood flow to a specific area in the brain.



9

Stroke

- The acronym FAST stands for Facial drooping, Arm weakness, Speech difficulties and Time to call emergency services.

F | **A** | **S** | **T**
FACE DROOPING | ARM WEAKNESS | SPEECH DIFFICULTY | TIME TO CALL 911

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Patient Assessment

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Patient Assessment Process

- Scene size-up
- Initial assessment
- Provide spinal immobilization
- Identify and treat life threats
- Focused history and physical exam
- Provide transport if needed
- Detailed physical exam
- Reassess vital signs
- Ongoing assessment

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Initial Assessment

- Determine responsiveness.
- An alert and oriented patient does not need CPR.
- You may also suspect cervical spine injury.
- Protect the spine.

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Rapid Trauma Assessment

- Maintain spinal immobilization keeping airway intact.
- Assess the head.
- Assess the neck.
- Apply a cervical spine immobilization collar.

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Rapid Trauma Assessment

- Assess the chest.
- Assess the abdomen.
- Assess the pelvis.
- Assess all four extremities.
- Roll the patient with spinal precautions.
- Assess baseline vital signs.

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Baseline Vital Signs

- Key signs used to evaluate a patient's condition
- First set is known as baseline vitals.
- Repeated vital signs compared to the baseline

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Baseline Vital Signs

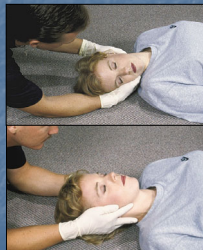
- Vital signs always include:
 - Respirations
 - Pulse
 - Blood pressure
- Other key indicators include:
 - Skin temperature and condition in adults
 - Capillary refill time in children
 - Pupils
 - Level of consciousness

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Stabilization of the Cervical Spine (1 of 2)

- Hold head firmly with both hands.
- Support the lower jaw.
- Move to eye-forward position.
- Maintain the position until patient is secured to a backboard.



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Stabilization of the Cervical Spine (2 of 2)

- Do not force the head into a neutral, in-line position if:
 - Muscles spasm
 - Pain increases
 - Numbness, tingling, or weakness develop
 - There is a compromised airway or breathing

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Head, Neck, and Cervical Spine

- Feel head and neck for deformity, tenderness, or crepitation.
- Check for bleeding.
- Ask about pain or tenderness.



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Chest

- Watch chest rise and fall with breathing.
- Feel for grating bones as patient breathes.
- Listen to breath sounds.

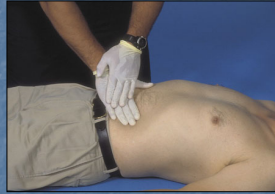


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Abdomen

- Look for obvious injury, bruises, or bleeding.
- Evaluate for tenderness and any bleeding.
- Do not palpate too hard.



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Pelvis

- Look for any signs of obvious injury, bleeding, or deformity.
- Press gently inward and downward on pelvic bones.

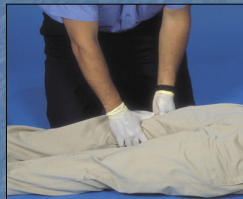


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Extremities

- Look for obvious injuries.
- Feel for deformities.
- Assess
 - Pulse
 - Motor function
 - Sensory function

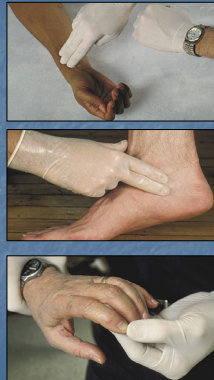


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Evaluating Neurovascular Function

- Examination of the injured limb should include assessment of the following:
 - Pulse
 - Capillary refill



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Evaluating Neurovascular Function

- Examination of the injured limb should include assessment of the following:
 - Sensation
 - Motor function



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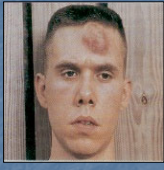


Detailed Physical Exam

- More in-depth exam based on focused physical exam.
- Should only be performed if time and patient's condition allows.
- Visualize and palpate using DCAP-BTLS.

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DCAP-BTLS

- Deformity
- Contusion
- Abrasion
- Puncture

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DCAP-BTLS

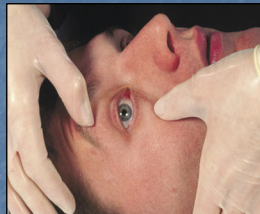
- Burns
- Tenderness
- Laceration
- Swelling

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Performing the Detailed Physical Exam

- Look at the face.
- Inspect the area around the eyes and eyelids.
- Examine the eyes.
- Pull the patient's ear forward to assess for bruising.



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Performing the Detailed Physical Exam

- Use the penlight to look for drainage or blood in the ears.
- Look for bruising and lacerations about the head.
- Palpate the zygomas.
- Palpate the maxillae.
- Palpate the mandible.

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Performing the Detailed Physical Exam

- Assess the mouth for obstructions and cyanosis.
- Check for unusual odors.
- Look at the neck.
- Palpate the front and the back of the neck.
- Look for distended jugular veins.

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Performing the Detailed Physical Exam

- Look at the chest.
- Gently palpate over the ribs.
- Listen for breath sounds.
- Listen also at the bases and apices of the lungs.
- Look at the abdomen and pelvis.



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Performing the Detailed Physical Exam

- Gently palpate the abdomen.
- Gently compress the pelvis.
- Gently press the iliac crests.
- Inspect all four extremities.
- Assess the back for tenderness or deformities.

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Focused Physical Exam

- Investigate problems associated with chief complaint.
- Examine abnormalities.
- Reassess vital signs.
- Make transportation decision.
- Document findings.

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Ongoing Assessment

- Is treatment improving the patient's condition?
- Has an already identified problem gotten better? Worse?
- What is the nature of any newly identified problems?

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Steps of the Ongoing Assessment

- Repeat the initial assessment.
- Reassess and record vital signs.
- Repeat focused assessment.
- Check interventions.

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Reassessment of Vital Signs

- Reassess stable patients every 15 minutes.
- Reassess unstable patients every 5 minutes.

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Spinal

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Signs and Symptoms of Spinal Injury

- Pain or tenderness of spine
- Deformity of spine
- Tingling in the extremities
- Loss of sensation or paralysis
- Incontinence
- Injuries to the head

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Stabilization of the Cervical Spine (1 of 2)

- Hold head firmly with both hands.
- Support the lower jaw.
- Move to eye-forward position.
- Maintain the position until patient is secured to a backboard.



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Stabilization of the Cervical Spine (2 of 2)

- Do not force the head into a neutral, in-line position if:
 - Muscles spasm
 - Pain increases
 - Numbness, tingling, or weakness develop
 - There is a compromised airway or breathing

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Assessing Mental Status

- Checking responsiveness
 - Assess how well the patient responds to external stimuli.
- Check for orientation
 - Check the patient's memory to person, place, time, and event. If he or she recalls all four, then he or she is fully alert and oriented times four.

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Questions to Ask Responsive Patients

- Does your neck or back hurt?
- What happened?
- Where does it hurt?
- Can you move your hands and feet?
- Can you feel me touching your fingers?
Your toes?

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Abnormal Pupil Reactions

- Fixed with no reaction to light
- Dilate with light and constrict without light
- React sluggishly
- Unequal in size
- Unequal with light or when light is removed

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Applying a Cervical Collar

- Provide continuous manual in-line support of the head.
- Measure the proper size collar.
- Place the chin support snugly under the chin.
- Wrap the collar around the neck.
- Ensure that the collar fits.

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Applying a Cervical Collar



Kneel at patients head.



Stabilize the Head and Neck.



Maintain Stabilization.

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Applying a Cervical Collar



Measure the patients neck.



Measure the collar, making sure chin piece will not lift patients chin and hyper-extend neck. Make sure collar is not too small or tight.

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Applying a Cervical Collar



Set Collar in place.



Secure the collar.



Continue manual stabilization.

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SPINAL IMMOBILIZATION VS. SPINAL RESTRICTION

50

Spinal Restriction

- Blunt trauma victims **DO NOT** need full spinal immobilization if the following conditions are **ABSENT** during the initial assessment of the patient.

51

Spinal Restriction

- Complain of neck or midline back pain.
- Abnormal neurological function or motor strength in extremities.
- Paresthesia
- Change in altered mental status.

52

Spinal Restriction/Spinal Immobilization

- **Check your local protocols.**
- National Registry Emergency Medical Technicians (NREMT) vs Local Protocols

53

Spinal Immobilization

- Maintain in-line stabilization.
- Have the other team members position the immobilization device.
- Log roll patient.
- Secure patient to backboard.
- Reassess pulse, motor, and sensory function in each extremity and continue to do so periodically.

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Log roll patient.



Place Board parallel to patient.
Overlap hands at hips, knees.
Stabilize shoulder and ankles.

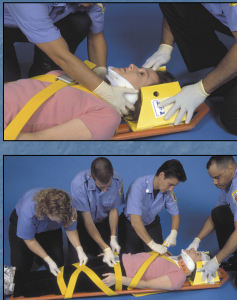
Roll the patient as one unit.
Keep the head in-line with the move.

Position patient on board
securely by sliding the patient
into position.

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Secure patient to backboard.



Apply a head immobilizing device
with straps or tape.

Secure patient to the board
utilizing straps.

•Reassess pulse, motor, and sensory function in each
extremity and continue to do so periodically.

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Backboards

- Short backboards
 - Used on patients found in a sitting position
- Long backboards
 - Provide full-body immobilization



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Helmet Removal

- According to the *"Pre-Hospital care of the Spine-Injured Athlete."*

Guidelines for helmet removal.

In general, any athletic helmet should be removed on the field **only** under certain circumstances.

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Guidelines for helmet removal.

- If after reasonable time face mask cannot be removed to gain access to airway.
- In design of helmet and chin strap, if even after removal of face mask, airway cannot be controlled nor ventilation be provided.
- If helmet and chin strap does not also immobilize the head.
- If the helmet prevents immobilization for transport in appropriate position.

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Removing the mask to a Sports Helmet.

Stabilize the patient's head and helmet.

Mask can be removed two ways...

Use a trainers tool designed for cutting retaining clips.



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Removing the mask to a Sports Helmet.

Unscrew the retaining clips from the facemask.



Once the facemask is removed, the helmet can be immobilized against the backboard and a BVM can be used.



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Helmet Removal (1 of 4)

- Is the airway clear and is the patient breathing adequately?
- Can airway be maintained and ventilations assisted with helmet in place?
- How well does the helmet fit?
- Can the patient move within the helmet?
- Can the spine be immobilized in a neutral position with the helmet on?

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Helmet Removal (2 of 4)

- A helmet that fits well prevents the head from moving and should be left on, as long as:
 - There are no impending airway or breathing problems
 - It does not interfere with assessment and treatment of the airway
 - You can properly immobilize the spine

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Helmet Removal (3 of 4)

- Prevent head movement.



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Helmet Removal (4 of 4)

- Slide helmet off while partner supports head.



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Immobilization and Transport

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Moving and Positioning the Patient

- Take care to avoid injury whenever a patient is moved.
- Practice using equipment.
- Know that certain patient conditions call for special techniques.

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Positioning An Unconscious Patient

- Kneel beside the patient.
- Straighten the patient's legs and move nearer arm above the head.



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Positioning An Unconscious Patient

- Turn patient by pulling the distant hip and shoulder.
- Control the head and neck so they move as a unit with the torso.



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Positioning An Unconscious Patient

- Roll onto backboard if available.
- Open patient's airway and assess breathing.

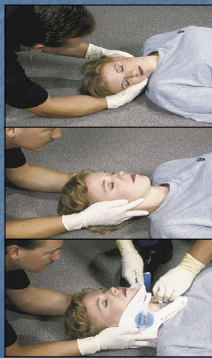


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Preparation for Transport: Supine Patients

- Maintain in-line stabilization.
- Have the other team members position the immobilization device.



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Directions and Commands

- Anticipate and understand every move.
- Moves must be coordinated.
- Orders should be given in two parts.

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Equipment

- What equipment do you need to perform on-site work?
 - Proper knowledge of wound care including the supplies to provide the appropriate care.

Contents for Chiropractors Athletic Event Emergency Bag.
Hal Rosenberg DC, Bart Green DC,MS
Journal of Manipulative & Physiological Therapeutics

73

Equipment

- You must be familiar and comfortable in using all the equipment.



If your not trained on the equipment.

Don't bring it.

74

Sports Bag

- Size – Will differ significantly depending upon the event you are covering.
 - Big enough to carry the equipment you'll need, but not so large that it is not easy to carry around.
- The bag should have compartments and dividers.
- The bag should be water-proof.

75

Sports Bag – Contents

- Blood Pressure Cuff.
 - Adult and child size.
 - Stethoscope.
- Airways
 - Oral and Nasal.
- Cervical Collars
 - Assorted sizes.
- Pen Light
- Gauze Pads.
 - 4x4.
 - 5x9.
- Roller Gauze
 - Cling
- Pocket Mask
- Scissors

76

Sports Bag – Contents

- Tape.
 - Assorted sizes.
- Shark
- Tooth preservation kit
- Skin lube.
- Digital Thermometer
- Tuning Fork.
 - 128.
- Cell Phone
- Alcohol Pads
- Band-aids
- Assorted sizes.

77

Sports Bag – Contents

- Ice Packs.
- Accident Report Form
- Gloves
 - B.S.I.
- Watch

78

Sports Bag – Additional Items

- Pen & Clip board.
- Antiseptic Spray
- Antifungal Spray
- Reflex Hammer
- Steri-Strips.
 - Assorted sizes
- Cotton Swabs
- Sting Swabs
- Antacid

79

Sports Bag – Additional Items

- Saline solution
 - Contact Lens Solution
- Splints
 - Assorted types
- Hydrogen Peroxide
- Safety Pin
- Nose Plugs
- Sun Block
- Nail Clippers
- Tweezers

80

Sports Bag – Additional Items

- Bio-Freeze
- Space Blanket
- Trauma Dressing
- Cravats/Triangular Bandages

Make sure all of your equipment is up-to-date.

Check expiration dates!!

81

Different Needs / Different Sports

- Cycling
 - Road rash
 - Cinder suds
 - Second skin.
- Rodeo
 - Tape
 - Tape
 - More tape
- Running
 - *Vaseline®*
 - *Petroleum Jelly*
 - *Second Skin*
 - *Band-aids*
 - *Blisters*
 - *Pulled Muscles*
 - *Dehydration*

82

Different Needs / Different Sports

- Bowling
 - Blisters
 - Rotator Cuff
 - Pronator
 - Opposite SI Joint
- Martial Arts
 - Nose Plugs
 - Splints
- Volley Ball
 - *Finger Splints*
 - *Sun Block*
 - *Pulled muscles*
 - *Abrasions*
 - *Laceration*
 - *Dehydration*

83

Different Needs / Different Sports

- Always check your scope of practice.

- Malpractice insurance will *usually* cover you for on-site work. Check with your carrier.

84

Remember

- Your bag should contain the appropriate equipment to provide first aid and emergency procedures.
- You Should be able to use all the equipment you bring so that proper care will be given to the athlete.

85

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