

Adlai E. Stevenson High School Athletic Training Policies and Procedures Handbook Version 2

Thomas J. Loew, ATC
Adam J. Kehoe, ATC
Amanda D. Ruesch, M.Ed, ATC
Angela M. Vollmer, M.Ed, ATC

Athletic Directors:
Tricia Betthauser
Chad Dauphin
Jill Smiley

Special Thanks to past authors for their input on the original version:

John Martin
Peter W. Weber, CAA
Kathy Nugent

Special thanks to the Athletic Trainers at District 211 for allowing the use of their Policies and Procedures Handbook to be used as a formula for volume one.

David Nierenberg, ATC
Dorothy Gaddy, ATC
Debra Townsend, ATC
Roger Kalisiak, ATC

Table of Contents

| | Page # |
|---|--------|
| Table of Contents | 2 |
| 1) Stevenson High School District 125 Athletic Training Philosophy | 4 |
| 2) Job Description of the ATC | 5 |
| 3) ATR Policies and Procedures | 6 |
| a) Purpose of the ATR | 7 |
| b) Daily Reporting and Recording of Injuries | 8 |
| c) Reporting for Treatment | 9 |
| d) Practice and Game Procedures for an Injured or Ill Student Athlete | 11 |
| e) General Return to Play Protocol | 13 |
| f) Athletic Training Coverage | 14 |
| g) Relationships and Responsibilities | 16 |
| h) Equipment | 18 |
| 4) Standard Operational Procedures for Specific Injuries or Illnesses | 20 |
| a) General Emergency Procedures | 21 |
| b) Abdominal and Other Related Injuries | 23 |
| c) Allergies | 24 |
| d) Back Injuries | 25 |
| e) Chest, Thoracic, and Lung Injuries | 27 |
| f) Bites | 30 |
| g) Bleeding and Other Wound Care | 31 |
| h) Dermatological Problems and Other Infectious Diseases | 33 |
| i) Heat and Cold Injuries | 36 |
| j) Diabetes | 39 |
| k) Drug Ingestion/Overdoes | 41 |
| l) Eye Problems | 43 |
| m) General Illness | 46 |
| n) Head Injuries | 48 |
| o) Spinal and Nerve Injuries | 52 |
| p) Oral and Dental Conditions | 54 |
| q) Nasal and Ear Conditions | 56 |
| r) Orthopedic Problems | 58 |
| s) Poison | 61 |
| t) Reproductive Organ Problems | 63 |
| u) Seizures | 69 |
| v) Shock | 69 |
| w) Water Safety as it Pertains to the ATC | 70 |
| 5) Standard Operational Procedures for Therapeutic Modalities | 71 |
| a) General Principles of Therapeutic Modalities | 72 |
| b) Cryotherapy | 73 |
| c) Ice Massage | 75 |
| d) Ice Immersion | 76 |

| | |
|--|-----|
| e) Cryokinetics | 77 |
| f) Hot and Cold Whirlpools | 78 |
| g) Moist Heat packs (Hydrocollator) | 79 |
| h) Paraffin Bath | 80 |
| i) Contrast Therapy | 81 |
| j) Therapeutic Ultrasound | 82 |
| k) Phonophoresis | 84 |
| l) Electrical Stimulation | 85 |
| m) Ultrasound and Electrical Stimulation Combo | 91 |
| n) Intermittent Compression | 92 |
| o) Massage | 94 |
| 6) Legal Terminology | 96 |
| 7) Appendices | 98 |
| a) Appendix #1: Injury Report Forms | 99 |
| b) Appendix #2: Emergency Protocol for Practices Outside the Coverage Window | 100 |
| c) Appendix #3: Emergency Phone Numbers | 101 |
| d) Appendix #4: Emergency Procedures for Severe Weather | 103 |
| e) Appendix #5: Ultrasound Treatment Matrix | 104 |
| f) Appendix #6: Blood Borne Pathogen Exposure Plan | 105 |

Stevenson High School District 125 Athletic Training Philosophy

The philosophy of Stevenson High School District 125 Athletic training Program is; competitive athletics is a worthwhile pursuit for a student. Athletics, besides being fun, has many lifelong benefits; however, frequently there are physical injuries. As Athletic Trainers Certified (ATC), we understand that possibility and accept the challenge to strive to prevent, minimize, treat and rehabilitate/recondition such injuries. Working cooperatively with the athlete, parent, and coach – under the direction of the physician – the ATC will attempt to provide quality sports health care for each athlete.

Job Description of the ATC

The ATC reports to the Athletic Director (AD). The ATC attends scheduled practices and interscholastic athletic contests as assigned by the AD. The responsibilities of the ATC shall include, but may not be limited to the following:

- 1) Posses Board of Certification (BOC) certification and fulfill the requirements to hold a current IL state license.
- 2) Provide on-site injury care and evaluation as well as appropriate acute care treatments, follow-up treatment and rehabilitation as necessary for all injuries sustained by student athletes.
- 3) Coordinate with team physician to provide:
 - a) Coverage for Home Varsity Football games
 - b) On site visits to evaluate and treat athletes from all sports when needed
 - c) Follow-up injury care in physician's office as needed
 - d) Reconditioning programs
 - e) Assistance on all matters pertaining to the health and well-being of student athletes
- 4) Coordinate with paramedic team to provide:
 - a) Coverage for Home Varsity Football games
 - b) Defined rolls when Emergency Medical Services (EMS) is called
- 5) Determine when an athlete may safely return to full participation after an injury (following a physician's authorization when needed)
- 6) Maintain complete and accurate records of all athletic injuries and treatments rendered
- 7) Notify parents or legal guardians and recommend appropriate medical care when the ATC deems a significant injury has occurred
- 8) Supervise the selection, fitting and maintenance of protective equipment
- 9) Provide assistance to the coaching staff in the development and implementation of conditioning programs
- 10) Supervise the Athletic Training Room (ATR) and inspect the playing facilities along with the coaching staff
- 11) Select and maintain athletic training equipment and supplies
- 12) Organize, implement and instruct the Athletic Training Student (ATS) program
- 13) Assist in maintenance of record of Warning of Risk, Athletic Physical and Medical Permission to Treat for all participating athletes. These forms are filed in the athletic office
- 14) Obtain current athlete emergency information from athletic office data base, or the school student medical data base
- 15) Attend clinics and symposiums as a source of continuing education

Athletic Training Room Policies and Procedures

Purpose of the ATR

The ATR is a facility where student athletes receive treatments, preventative care, as well as rehabilitation. The ATC is responsible for providing services in an attempt to maintain the student athletes' highest level of competition safely.

The ATR is considered an acute care facility. Although the ATC's can assist, the responsibility of long term care and management of an injury lay with the student athlete and his/her family.

This facility is not to be used as a "lounge" or meeting room for any sport or student athlete. Food and drinks are not permitted in this facility. The ATR is NOT a "health club" type facility. Student athletes are not to self-treat or use any aspect of the ATC without ATCs' supervision.

Daily Reporting and Recording of Injuries

It is the student athletes' responsibility to report to the ATC and Coach all athletic injuries associated with athletic participation within 48 hours.

When an ATC learns of such an injury, he/she will notify the appropriate Coach or Coaches. Similarly when a Coach learns of an injury he/she will notify the ATC. The ATC will make the necessary medical referrals as indicated.

Coaches will not refer student athletes out to physicians. The first and only referral by a Coach is to be to the ATC (excluding 911/EMS emergencies.)

In the event of an injury:

- 1) Athletes will report to the ATR and contact an ATC regarding the injury. If the injury is severe and student athlete cannot be moved the coach should contact the ATC via radio (channel 2) or phone (ext. 4238, 4258, or 4255) for the ATC to meet the student athlete at the injury location
- 2) ATC will evaluate injury and report findings to student athlete and Coach
 - a) If injury is to remain confidential ATC will not report exact finding to the Coach, ATC will report to the Coach that the student athlete will be unable to participate due to injury
- 3) The ATC will notify parents or legal guardian, or if unable to do so the alternative name on the emergency database. The ATC will provide current information regarding options for follow-up care, EMS or current transport.
 - a) In the event the parents, legal guardian, or emergency contacts cannot be reached call EMS, if needed.
 - b) When EMS is called there are Hospital/ER options for the parents to choose from, they are:
 - i) Condell
 - ii) Lake Forest
 - iii) Highland Park
 - c) If parents or legal guardians cannot be reached Condell is the default Hospital EMS will transport to
- 4) All ATCs' will maintain accurate records of athletes who report for care
 - a) ATCs' will collect and record all physician notes returned to them by the student athletes, as a running tabulation of injury as well as medical record
 - b) A daily record of all new injuries as well as current treatment of ongoing injuries will be maintained by the ATC

Reporting for Treatment

All student athletes should report to the ATR for injury evaluation and treatment during the hours of operation. The ATC will administer care to the student athletes and at no time should the athletes be permitted to use the ATR without supervision.

- 1) Dress:
 - a) Student athletes should be dressed appropriately for evaluation
 - i) Dress should include T-shirts and workout shorts
 - ii) Student athletes reporting in jeans or other clothing that may hinder evaluation may be asked to change or come in the next day with proper clothing
 - b) Student athletes must present for evaluation and follow-up treatment in clean clothing, those dressed in soiled or dirty clothing will be asked to change or report for treatment the next day
 - c) Spikes/cleats and athletic equipment are to be left in the locker room
- 2) Conduct:
 - a) All school rules of conduct apply in the ATR similar the classroom
 - b) All student athletes and non-athletes not needing evaluation or treatment of an injury may be asked to leave
 - c) Student athletes may have to wait to see the ATC, and are encouraged to wait patiently as misbehavior will be dealt with accordingly
- 3) Hours of Operation:
 - a) The ATR is open for treatment and care during the established practice windows, these practice windows are approved by the AD and are as follows:
 - i) Fall Daily Practice Schedule
 - (1) School week:
 - (a) Monday thru Friday 2:30 – 6:00 pm
 - (b) Saturday 8:00 am – 12:00 pm
 - (2) Holiday or Breaks from school, TBD or within
 - (a) Monday thru Saturday 8:00 am – 12:00 pm
 - ii) Winter Daily Practice Schedule
 - (1) School week:
 - (a) Monday thru Friday 2:30 – 8:00 pm
 - (b) Saturday 8:00 am – 12:00 pm
 - (2) Holiday or Breaks form school, TBD or within
 - (a) Monday thru Saturday 8:00 am – 12:00 pm
 - iii) Spring Daily Practice Schedule
 - (1) School week BEFORE permitted to go outside and during inclement weather:
 - (a) Monday thru Friday 3:30 – 9:00 pm
 - (b) Saturday 8:00 am – 6:00 pm
 - (2) School week AFTER permitted to go outside:
 - (a) Monday thru Friday 3:30 – 6:00 pm
 - (b) Saturday 8:00 am – 12:00 pm

- (3) Holiday or Breaks from school, TBD or within
 - (a) Monday thru Saturday 8:00 am – 12:00 pm
- b) The ATR located at the Vernon Hills Sports Complex (VHAC) is open for business when the weather allows for practice there and the practice window is as follows:
 - i) Fall and Spring Practice Schedule
 - (1) School Week
 - (a) Monday thru Friday 3:30 – 6:30 pm
 - (b) Saturday - 8:00 am – 12:00 pm
 - (2) Holiday or Breaks from school
 - (a) Unless discussed with the ATC VHAC will be closed during breaks and/or holidays
 - (b) All practices should be held at Stevenson pending space

Practice and Game Procedures for an Injured or Ill Student Athlete

Decisions regarding the availability of the student athlete for practice or game competition require the cooperative efforts of the student athlete, Coach, ATC, physician, parents, and the AD. These decisions should and will be based on sound medical judgments, with the outcome being proper athletic health care. With this in mind, the ATC will attempt to provide quality athletic health care for the student athlete under the following guidelines:

- 1) If a student athlete is under the care of a physician, or a physician is present, the physician determines the ability of the student athlete to practice or compete in practice or game.
- 2) If the student athlete is NOT under a physician's care, and the ATC is providing the primary care, the ATC determines the ability of the student athlete to practice or compete.
 - a) The ATC will convey a "no-play" decision to the appropriate coach.
 - b) Under no circumstances should the coach allow the student athlete to practice or compete until either they are cleared directly by the ATC or there is written documentation by the physician that the student athlete is able to return to play.
 - i) Verbal communication from the physician will be accepted on a 24 hour basis, written documentation is required for full clearance to return to play.
 - ii) A representation by the student athlete to the ATC and/or coach will NOT meet the requirements for the student athletes to return to play.
 - iii) A "no-play" decision by the physician will always be followed.
- 3) Under NO circumstances shall the Coach allow a student athlete to practice/compete when a "no-play" decision of the ATC or physician is in effect.
 - a) Should a coach or student athlete desire to disregard the "no-play" order action will be taken to safeguard the student athletes' health.
 - i) ATC will notify the AD of student athletes' and coaches actions.
 - ii) ATC will notify the student athletes' parents/guardian.
 - b) NUMBER ONE PRIORITY OF THE ATC IS THE HEALTH OF THE ATHLETE, IF IT IS UNSAFE FOR THE ATHLETE TO PARTICIPATE OR IT IS DEEMED FURTHER PLAY WILL RESULT IN FURTHER INJURY, THEY SHOULD NOT BE PARTICIPATING!!
- 4) If a "no-play" decision is in place the student athlete may be able to perform rehabilitation of the injury and is expected to report to the ATR daily for treatments.
- 5) Medical Referral and Continued Care:
 - a) At the time of the comprehensive examination of the injury, the ATC will present his/her opinion on the need of a medical referral.
 - b) Parents/guardian will be notified if there is a need for a medical referral.
 - i) ATC will give advice about the type of physician that would best help the student athlete.
 - ii) ATC will give advice about the specific physician that would best help the student athlete.

- c) The final decision rests with the parent/guardian, if the parent/guardian disregards the referral the student athlete will be medically disqualified until they are seen by a physician.
- d) If the student athlete receives care from a physician a completed form or Rx prescription will indicate the diagnosis and suggestions for the continued care of the student athlete, this note is required after seeing a physician.
- e) In the event an injured student athlete sees a physician without prior knowledge of the ATC, the athlete must bring a written report of the physician's finding for the release to play. If this is not provided the student athlete will not be permitted to practice/compete until this note is filed with the ATC
- f) Continued care of the student athlete is carried out in the form of daily reevaluation of the student athletes' progress, daily treatments, and rehabilitation
- g) Where needed and available, such care is performed with periodic consultation of the attending physician.

General Return to Play Protocol

All student athletes who have sustained an injury must be cleared by the ATC and/or physician in order to return to play.

Regardless of clearance from a physician a student athlete wishing to return to play must also adhere to this protocol in order to return to play.

The following is a standard protocol for releasing a student athlete to return to play:

- 1) Student athlete must maintain full range of motion bilaterally in order to be eligible to return to play
- 2) Student athlete must maintain full strength bilaterally in order to be eligible to return to play
- 3) Student athlete must be pain free while performing functional aspects of their sports
- 4) Any student athlete needing extra support or padding must report to the ATR daily in order to maintain that equipment given to the athlete
- 5) Any athlete needing tape support must report to the ATR daily to have tape applied
 - a) Supplies for taping are not endless, and no student athlete shall be taped everyday for an entire season for their injury
 - b) Taping of an injury will only occur for 2 weeks after being cleared by the ATC to return to play
 - c) Any additional support the student athlete may need after 2 weeks must come in the form of a brace, which the ATC will aid in supplying
- 6) Student athlete must have little to no swelling within the injury site in order to be eligible to return to play
- 7) Student athlete must understand the risks involved in returning to play after the injury and must be ready to adapt to the physical demands of their sport in relation to their injury
- 8) If ATC feels that continued play with injury is detrimental to the student athlete, regardless of physician clearance, student athlete will remain under no play/practice status until ATC can contact physician and get clarification on exact findings of the evaluation

Athletic Training Coverage

The ATC will be in attendance at all scheduled home contests and practices with a few exceptions. (Please refer to the ATR coverage windows under Reporting for Treatment, Hours of Operation for times the ATR will be open.) Each individual situation is treated differently; however, in general, the event under direct coverage of the ATC is the event which holds the highest probability of needing immediate medical assistance.

- 1) ATC Present – In the event an injury occurs while the ATC is present at either a home or away events, the following protocol exists:
 - a) The ATC performs an immediate evaluation of the injury and determines the severity
 - b) An evaluation or an impression is made which forms the basis of the immediate first-aid and continued participation status
 - c) The determination of a student athlete's ability to continue is made solely by the ATC in the absence of a physician
 - d) Should the injury warrant immediate medical attention, the ATC will decide on the best means of transportation
 - e) A student athlete sustaining an injury, but continuing to participate will undergo a comprehensive examination at the earliest possible moment, immediately following the practice or game in which the injury occurred
 - f) The purpose of this exam is to completely evaluate and document the injury and to determine further treatment and the need for medical referral
- 2) ATC Not Present – Home Event – In the event of an injury at a home event, when the ATC is not present, the following procedure exists:
 - a) If the ATC is on campus, but not immediately present, the coach should contact the ATC by the quickest available means, and the injury should be managed as discussed in the previous section
 - i) If in the Sport Center, please proceed to the ATR. If ATC is not there use radio on the ledge to the right of the office door to radio the ATC.
 - ii) If in the Field House, please proceed to the northwest closet and use the radio there to notify the ATC
 - iii) If in the Stadium, please either proceed to the ATR indoors, or use the radio in the Stadium kit supplied by the ATC each day
 - iv) If outside at the outer fields, please proceed to the northwest door of the maintenance barn and use the radio located there to notify the ATC
 - b) The attending coach makes an immediate general determination of the severity of the injury and provides any indicated first-aid (If practicing outside the coverage times of the ATC please refer to Appendix #2 for instruction)
 - c) If there is any doubt as to the severity of the injury, medical referral is advised and, if deemed necessary, paramedics should be summoned
- 3) ATC Not Present – Away Event – In the event of an injury at an away event, when the ATC is not present the following procedure should be followed:

- a) The attending Coach must adhere to the recommendations of the host ATC or licensed medical personnel
 - b) Immediate first-aid is the responsibility of the Coach until such assistance can be obtained. The Coach should work with the host schools' medical personnel to ensure any necessary immediate medical attention is summoned. Please refer to General Emergency Procedures on page 21 for help with first aid protocol
 - c) The injured athlete should be directed to see the ATC as soon as possible before the next practice or contest
- 4) Physician Attendance / Paramedic Coverage
- a) Due in large part to financial constraints, coverage by physician and/or paramedics at home events is presently limited to Varsity Football games.
 - b) This is based on the probability of catastrophic injury being significantly higher in this activity
- 5) Physical Education (PE) Injuries
- a) All injuries sustained while participating in PE classes are reported to and managed by the school nurse
 - b) If needed, assistance from the ATC is available

Relationships and Responsibilities

1. ATC and Student Athletes
 - a. The main concern of any and all ATCs should be the health of the student athlete
 - b. The student athlete is to report any and all health concerns, including injury, to the ATC as soon as possible
 - c. Only important and medically necessary information regarding the injury will be shared with the coach
 - d. Parents of the injured student athlete will be notified as soon as possible after the injury has occurred
 - e. The student athlete is responsible for follow-up treatment of his/her injury
 - f. The student athlete may be medically disqualified from play if treatment requirements and/or full clearance from a physician is not met
2. Coach and Athletic Training Students (ATS)
 - a. The ATS works under the direct supervision of the ATC.
 - b. Under NO circumstances is the ATS to communicate athlete information to anyone other than the ATC
 - c. The ATS must NEVER be allowed to make medical decisions, analyze or diagnose injuries, or assist in the treatment of athletic injuries except under the direct supervision of the ATC
3. ATC and Coaches
 - a. As previously stated all medical decisions will go through the ATC
 - b. The ATC communicates with the coach about injured athletes
 - c. If the Coach has questions regarding treatments rendered they can come at any time to the ATC
4. ATC, Coaches and Visiting Teams
 - a. Should a visiting athlete be injured, the visiting team's personnel should execute emergency procedures as outlined by their school district – District 125 personnel will be on hand to lend any assistance needed
 - b. Visiting teams should be made aware of the available athletic training aids, supplied, equipment, facilities, and supportive services
5. ATC and ATS
 - a. ATS are under the direct supervision of the ATC
 - b. Under this supervision ONLY may an ATS assist the ATC on taping, handling and care of supplies, and treatment of student athletes
 - c. Under NO circumstances may the ATS perform any actions of the primary ATC
 - d. ATC's are also responsible for the Athletic Training education of the ATS
6. ATC and Physician
 - a. The ATC works under and in conjunction with the team physician as well as community physicians
 - b. The ATC and physician should develop the treatment program necessary for the student athletes' safe return to activity

- c. When a team and/or community physician is present at an athletic event, the final decision regarding the status of the student athlete rests with the physician if the physician is ready and willing to take responsibility of the student athlete
 - d. The ATC, Coaches, student athletes, and parents work cooperatively with physicians to ensure quality athletic health care
7. ATC and Parent
- a. It is the responsibility of the ATC to contact the parents/guardian after the student athlete is injured
 - b. The ATC will inform the parent/guardian about the injury and recommend care
 - c. All parent/guardian questions shall be answered by the ATC
 - d. Ultimately parents/guardians have the final say on treatment regarding the health of the son/daughter, but the ATC can medically disqualify a student athlete until they are seen by a physician
 - e. The ATC and parents/guardians should work together to insure a safe return to play for the student athlete

Equipment

1. Athletic Training Kit and Ice/Water Coolers
 - a. The Athletic Training Kit
 - i. The athletic training kit contains most supplies used by a coach during practices, home events, and when traveling to another site
 - ii. Kits can be checked out in the ATR and must be returned after the conclusion of the season
 - iii. The kit provides necessary first-aid supplies as well as the most generally used athletic supplies used in the ATR
 - iv. The coach is responsible for the care and maintenance of the supplies within the kit
 - v. The coach is responsible for bringing the kit to all events, home or away, where the ATC will not be directly supervising the event
 - vi. If more specialized equipment is needed coaches can request the extra supplies from the ATC
 - vii. Any non-consumable items lent to a team or team member must be returned to the ATR at either the conclusion of the season or when it is no longer needed, missing equipment may be charged to the individual student athlete or the team collectively
 - b. Ice and Water Coolers
 - i. Ice and water coolers can also be checked out in the ATR
 - ii. Coaches are responsible for the care and maintenance of the coolers
 - iii. Water coolers can be filled in the ATR, in the northeast storage room near the ice machine in the field house, or outside at the watering trees (The ATCs will NOT be responsible for filling and/or delivering water to athletes)
 - iv. If water bottles are used, coaches must emphasize proper hygiene, do NOT allow the athlete to place the spout in contact with their mouths or remove lids to drink
2. Supplies
 - a. If specialized equipment is needed for teams it is the coaches responsibility to notify the ATC of those needs as soon as possible
 - b. If the equipment is not in supply the coach needs to inform the ATC before budget requests are due
3. Rehabilitation Equipment
 - a. ATR equipment is available to the student athletes only with ATC supervision
 - b. Safety rules are posted in each area and will be enforced by the ATC
 - c. The ATC is responsible for the supervising the ATR and the coach is responsible for the supervision of the weight room
 - d. Student athletes should not be permitted to work in an unsupervised area
4. Emergency Equipment
 - a. Major emergency equipment (AED, oxygen, stretchers, splints, crutches, etc.) will generally be kept in the ATR

- b. The ATC will review the location and use of each piece of equipment with the coach at the beginning of each sports season if requested
 - c. Local ambulance service may have specific requests regarding equipment that should or should not be used prior to their arrival. The ATC is aware of specific requests and cooperates with these requests when deemed to be in the best health interests of the injured student athlete
5. Equipment and Supplies for Individual Use
- a. When equipment is taken from the ATR the ATC will record the student athlete's name and equipment issued
 - b. The student athlete is responsible for returning all equipment handed out
6. Protective Equipment
- a. Issuing on-hand protective athletic equipment shall be based on the recommendation or advice of the ATC and/or the physician
 - b. Issuance of special protective athletic equipment shall not be related to the student athletes' skill level
 - c. Taping Policy
 - i. Stevenson High School is NOT responsible for supplying tape support for an individual athlete for the entire season
 - ii. If tape support is needed it will be on an individual basis and applied to support the athlete from further injury while allowing them to continue play
 - iii. Tape support will be supplied for the student athlete for two weeks ONLY, if needed a brace should be used thereafter
7. Golf Cart
- a. The golf carts are to be used to get to an injury and for the transportation on injured athletes, equipment, and supplies at the discretion of the AD and the ATC
 - b. ATCs must be licensed drivers and have passed a safety driving test with and ATC in order to operate golf carts, and only when specifically directed to by an ATC

Standard Operational Procedures for Specific Injuries or Illnesses

General Emergency Procedures

If an injury occurs please take the following actions:

- 1) Immediate actions to be taken;
 - a) Check the scene for safety before entering. DO NOT enter the scene if it is unsafe to do so. If the scene is unsafe call 911 immediately
 - b) Call ATC by phone (ATR – 415-4238; Tom Loew – 415-4258; Adam Kehoe – 415-4255) or by radio. Please use the following procedures when calling for the ATC on the phone or radio;
 - i) Radio Channels;
 - (1) Channel 1 – Security / AD
 - (2) Channel 2 – ATC / AD
 - (3) Channel 3 – Sodexo / Custodial / Maintenance / Grounds
 - (4) Channel 4 – Audio Visual
 - (5) Channel 5 – Talk around Security
 - (6) Channel 6 – Talk around
 - ii) Calmly and clearly go to Channel 2 and ask for an ATC.
 - (1) Press the side bar to talk, wait a second before talking
 - (2) Release the side bar and wait for an answer, follow up questions, and/or instructions
 - (3) Please state the location and nature of the injury as well as the urgency
 - (4) Please make sure to tell the ATC about any life threatening conditions exhibited by the student athlete (breathing difficulties, sever bleeding, consciousness, loss of pulse, etc.)
 - c) Administer first-aid as needed
 - i) Check for breathing and pulse (fast, slow, weak, strong, shallow, deep, regular, or irregular)
 - ii) Check for severe bleeding
 - iii) Check for deformities and dislocation and/or any other areas of pain
 - d) Check for signs of life, if there are no signs of life or any of the following are present call 911
 - i) Unconscious or unresponsive
 - ii) Unable to speak
 - iii) Difficulty breathing
 - iv) Chest pain
 - v) Sever bleeding that cannot be controlled by direct pressure
 - vi) If a foreign object is imbedded, DO NOT REMOVE
 - e) Call 911 as soon as possible if necessary
 - i) When calling the paramedics on the phone, 911 operator will want to know the following:
 - (1) Your name and position (i.e. Coach)
 - (2) Describe nature of injury

- (3) Give location of injured student athlete, may need to state which outside field or which building, east or west
- (4) State gender and age of student athlete
- (5) Give the phone number of the phone you are using to call 911
- ii) Use radio to call security on channel 1 so they can direct EMS to the injured student athlete
- iii) Have emergency information on the student ready for EMS
- iv) Contact parent/guardian as soon as possible
- 2) ATC will evaluate and determine the extent of the injury
 - a) ATC will use a general SOAP note format (Appendix 1)
 - i) Subjective – includes all subjective information obtained from student athlete regarding history, mechanism of injury (MOI), pain levels, ambulation, etc...
 - ii) Objective – includes all objective information obtained through palpation, inspection, range of motion (ROM), manual muscle tests (MMT) and special tests, etc...
 - iii) Assessment – includes the working diagnosis of the ATC
 - iv) Plan – Includes a plan of action to rehab the injury and return the student athlete to play as safely and as soon as possible
 - b) ATC will also make a determination of the level of activity allowed by the student athlete after injury
- 3) General care of an injury (PRICE)
 - a) Protect – protect student athlete and injury site from further injury
 - b) Rest – resting the injury is the fastest way to jump start the healing process
 - c) Ice – place ice on the injury site to decrease swelling and pain, this will also help jump start the healing process
 - d) Compression – use an ace wrap to help reduce the amount of swelling that is allowed to pool at the injury site. Generally you should start wrapping below the injury, start tighter (DO NOT cut off circulation) and get looser as you work your way up to and over the injury site.
 - e) Elevate – elevate the injury site above the heart to help reduce the amount of swelling

DO NOT FURTHER HARM!

Avoid moving a student athlete, even if the injury is thought to be not serious. Call for ATC support and they will make the decision regarding the severity of the injury. One of the most serious threats to a seriously injured victim is unnecessary movement.

Abdominal and Other Related Injuries

- 1) Abdominal Contusion
 - a) MOI: usually a direct blow to the abdominal area
 - b) Signs and Symptoms
 - i) Cramping
 - ii) Swelling and/or bruising
 - iii) Pain with movement
 - c) Treatment
 - i) Discontinue play and rest
 - ii) Refer to physician if:
 - (1) Blood in urine
 - (2) Vomiting due to contusion
 - (3) Severe cramping or is in the fetal position call 911
- 2) Kidney Contusion
 - a) MOI: usually a direct blow to the lower back
 - b) Signs and Symptoms
 - i) Shock
 - ii) Nausea
 - iii) Vomiting
 - iv) Rigidity of the back muscles
 - v) Blood in urine
 - c) Treatment
 - i) Discontinue play and rest
 - ii) If there is blood in urine or pain persists and does not improve ER visit is needed
- 3) Appendicitis
 - a) MOI: caused by inflammation of the appendix
 - b) Signs and Symptoms
 - i) Student athlete complains of moderate to severe pain over the appendix
 - ii) Nausea, which may progress to vomiting
 - iii) Low grade fever (99° to 100° F)
 - iv) Abdominal cramping
 - v) Pain, tenderness, and rigidity at McBurney's point
 - c) Management
 - i) Surgical removal of the appendix

Allergies

All student athletes with allergies should inform the ATCs of the allergy and the severity.

- 1) Any student athlete suffering from severe allergies should be carrying an Epinephrine pen (Epi-pen) with them at all times
- 2) If any student athlete comes in contact with an allergen, steps should be taken to reduce the allergic reaction
 - a) If the student athlete is not severely allergic remove the athlete from allergen and wash effected area well with soap and water
 - b) If the student athlete is severely allergic, locate Epi-pen and administer as soon as possible
 - i) If Epi-pen is administered you MUST call 911 and treat for shock

Back Injuries

Back problems are usually either caused by congenital abnormalities or idiopathic conditions

- 1) Congenital Back abnormalities
 - a) Spinal bifida occulta
 - b) Scoliosis
- 2) Lumbar Vertebrae Fracture
 - a) Greatest concern is compression fractures of the lumbar spine
 - b) MOI: can be either sudden sometimes forced hyperextension of the spine or falling on directly on the buttocks
 - c) Signs and Symptoms
 - i) Point tenderness at the vertebrae
 - ii) Definitive diagnosis must come from X-rays
 - d) Treatment
 - i) Call 911, do not compromise the spinal cord
 - ii) May be put in an abdominal brace to support the spine
- 3) Low Back Strains and Sprains
 - a) MIO: can be caused by sudden extension of the spine or a direct blow to the low back
 - b) Signs and Symptoms
 - i) Pain in low back
 - ii) May see visible spasm of the extensor muscles
 - iii) Pain on Palpation (POP) over extensor muscles
 - iv) No evidence of radiating pain to buttocks or legs
 - v) Weakness in back extension
 - c) Treatment
 - i) PRICE
 - ii) Ice massage
 - iii) Slow return to play with emphasis on increasing ROM and strength
- 4) Back Contusion
 - a) MIO: direct blow to the back
 - b) Signs and Symptoms
 - i) May have visible bruise
 - ii) May have muscle spasms
 - c) Treatment
 - i) PRICE
 - ii) Ice massage
 - iii) Gradual return to play with emphasis on increasing ROM
- 5) Sciatica
 - a) MIO: Overuse causing inflammatory reaction of the Sciatic nerve as it travels through the hip joint
 - b) Signs and Symptoms
 - i) Sharp shooting pain starting around the hip and radiating down the buttocks, inner thigh, and leg

- ii) Type of pain is usually described as pins and needles or numbness and tingling along the nerve path
- c) Treatment
 - i) PRICE
 - ii) Gradual return to play with emphasis on increasing hip external ROM
 - iii) May take NSAIDs
- 6) Herniated Disk
 - a) MOI: sudden and/or forced flexion, extension, or torsion of the lumbar spine
 - b) Signs and Symptoms
 - i) Sharp pain where disk is herniated
 - ii) Pain can radiate
 - iii) Weakness
 - iv) Symptoms worsen with axial loading of the spine
 - v) Positive Valsalva maneuver
 - c) Management
 - i) PRICE
 - ii) Manual traction
 - iii) Appropriate mechanics and posture
- 7) Spondylitis, Spondylosis, Spondylolysis and Spondylolisthesis
 - a) Spondylitis – Inflammation of the vertebral joint
 - b) Spondylosis – degenerative disorder of the vertebral joint
 - c) Spondylolysis – Stress fracture of the pars interarticularis of the vertebrae
 - d) Spondylolisthesis – A full fracture of the pars interarticularis causing the vertebrae to slip forward in relation to an adjacent vertebrae
 - e) MOI: Can be congenital or caused by hyperextension of the lumbar spine
 - f) Signs and Symptoms
 - i) Persistent mild to moderate achy pain
 - ii) Limited ROM
 - iii) May feel weak
 - g) Management
 - i) PRICE
 - ii) Bracing of the low back
 - iii) Rehabilitation should focus on trunk strength and core synergistics
- 8) Sacroiliac (SI) Joint Sprain
 - a) MIO: can occur when an athlete twists with stationary legs, falls backwards, and stumbles forward
 - b) Signs and Symptoms
 - i) POP over SI joint
 - ii) Can have radiating pain
 - iii) Pain increases with single leg stance
 - c) Management
 - i) PRICE
 - ii) May indicate use of back brace

Chest, Thoracic and Lung Injuries

- 1) Rib Fracture
 - a) MIO: Direct blow to the rib cage or repeated forceful coughing
 - b) Signs and Symptoms
 - i) Severe pain at injury site
 - ii) Positive compression test of the ribs
 - iii) May have pain with breathing
 - iv) Positive Valsalva maneuver
 - c) Management
 - i) Needs X-rays to confirm fracture
 - ii) PRICE
 - iii) May use rib brace for compression
- 2) Costochondral Separation and Dislocation
 - a) MIO: May be caused by a direct blow, sudden twist or fall on the thorax
 - b) Signs and Symptoms
 - i) Sharp pain at injury site
 - ii) Difficulty breathing due to pain
 - iii) POP over injury site
 - c) Management
 - i) PRICE
 - ii) NSAIDs
- 3) Injuries to the Lungs
 - a) Pneumothorax – the pleural cavity fills with air and the lung on that side collapses
 - b) Tension Pneumothorax – the pleural cavity fills with air and displaces the lung and heart toward the opposite side, which compresses the opposite lung
 - c) Hemothorax – blood fills the pleural cavity and compresses the lung on the same side
 - d) Management
 - i) Call 911
 - ii) Administer Cardiopulmonary Resuscitation (CRP), acquire Automated External Defibrillator (AED) and apply if needed
- 4) Hyperventilation
 - a) MIO: Can be caused by anxiety and is the excessive rapid breathing
 - b) Signs and Symptoms
 - i) Appears to have a difficulty breathing, or may be breathing rapidly
 - ii) Is NOT wheezing
 - iii) Redness of the skin
 - iv) Struggling to catch breath
 - v) May get numbness and tingling in arms, hands, legs and feet
 - vi) Light-headedness
 - vii) May faint or pass out due to lack of oxygen
 - c) Management
 - i) Decrease rate of breathing

- ii) Breath into cupped hands or paper bag
- 5) Asthma Attack
- a) MOI: Can be caused by either constriction of the bronchioles or inflammation of them or, and be caused by both working at the same time
 - b) Signs and Symptoms
 - i) Difficulty breathing, gasping for breath
 - ii) Wheezing
 - iii) Shortness of breath
 - iv) Athlete will state it feels like they cannot catch their breath
 - c) Management
 - i) Inhaler (albuterol) should be given to the athlete as soon as possible, the athlete should carry his/her inhaler with them at all times
 - ii) If inhaler is not readily available student athlete should be instructed to concentrate on taking good long breaths by using their stomach to breath and not the chest muscles.
 - (1) Student athlete should be instructed to stick stomach out when breathing in
 - (2) Then should be instructed to stick stomach in when breathing out
 - (3) This will help the student athlete breath with the diaphragm and will help control breathing until inhaler can be reached
 - iii) If condition does not improve with relaxed breathing and administration of inhaler call 911 for paramedics
- 6) Choking
- a) MOI: Student athlete sucked object into wind pipe
 - b) Signs and Symptoms
 - i) May display universal choking sign – hands to throat
 - ii) Will be unable to speak
 - iii) May or may not be coughing
 - iv) May or may not lose consciousness
 - c) Management
 - i) DO NOT interfere with student athlete if they are actively coughing and/or trying to dislodge object themselves, stand-by
 - ii) If student athlete CANNOT breath, cough or speak, call 911
 - iii) If conscious perform abdominal thrusts
 - (1) Place thumb side of fist against middle of abdomen just above the navel
 - (2) Grasp fist with other hand
 - (3) Give 5 quick upward abdominal thrusts
 - (4) Check to see if athlete can breath
 - (5) Repeat until abject is dislodged
 - iv) If unconscious a trained professional should administer rescue breathing
- 7) Heart Contusion
- a) MIO: Caused by the compression of the heat between the sternum and spine
 - b) Signs and Symptoms
 - i) Shock
 - ii) Heat pain

- iii) May have heart arrhythmias that can decrease heart output
 - c) Management
 - i) Call 911
 - ii) Treat for Shock
 - iii) Administer (CRP), acquire (AED) and apply to student athlete
- 8) Heart Attack and Sudden Death Syndrome
 - a) MIO: Can be caused by congenital defects, and the heart just stops due to increases in activity
 - b) Signs and Symptoms
 - i) Chest pain
 - ii) Heart palpitations or flutters
 - iii) Syncope
 - iv) Nausea
 - v) Profuse sweating
 - vi) Heart murmurs
 - c) Management
 - i) Call 911
 - ii) Treat for shock
 - iii) Administer CRP, acquire AED and apply to student athlete
 - d) Prevention
 - i) If the student athlete has a heart condition they should be cleared by a cardiologist who understands the demands of the sport they are planning on participating in
 - ii) If there are any indications of a heart condition they should not be ignored
- 9) Commotio Cordis
 - a) MIO: caused by a badly timed direct blow to the chest, that caused cardiac arrest
 - b) Signs and Symptoms
 - i) Ventricular fibrillation
 - ii) Loss of consciousness (LOC)
 - c) Management
 - i) Call 911
 - ii) Administer CPR, get AED and apply to the student athlete

Bites

- 1) Animal Bites
 - a) MIO: bites from an animal that perforates the skin
 - b) Signs and Symptoms
 - i) Can be puncture wounds and or scratches
 - ii) Bleeding can be mild, moderate or severe
 - c) Management
 - i) If needed call 911 and administer any and all first-aid needed
 - ii) Wash thoroughly with soap and water
 - iii) Apply antiseptic and sterile dressing
 - iv) Notify the parent/guardian and police of the incident
 - v) Should also be referred to physician for necessary antibiotics and any booster shots needed
- 2) Human Bites
 - a) MIO: bites from a human that perforates the skin
 - b) Signs and Symptoms
 - i) Can be puncture wounds as well as scratches
 - ii) Bleeding can be mild, moderate or severe
 - c) Management
 - i) Wash thoroughly with soap and water
 - ii) Apply antiseptic and sterile dressing
 - iii) Notify parents/guardian and police if needed
 - iv) Should also be referred to a physician for necessary antibiotics and blood borne pathogen contamination check
- 3) Insect Bites
 - a) MIO: bites from insects like mosquitoes, bees, flies and any other biting insect
 - b) Signs and Symptoms
 - i) Allergic student athlete may have sever itching and may even go into anaphylactic shock
 - ii) Locate Epi-pen and use if needed
 - iii) Swelling of the area where bitten that may be itchy
 - c) Management
 - i) If student athlete is allergic
 - (1) Locate Epinephrine pen (Epi-pen) and administer to student athlete
 - (2) Call 911
 - ii) If student is not allergic
 - (1) Apply ice to bite
 - (2) Remove stinger if present
 - (3) May use "StingKill" swaps

Bleeding and Other Wound Care

Please review the Universal Precautions regarding blood borne pathogens in Appendix 7.

- 1) External
 - a) Minor
 - i) Wash wound with soap and water thoroughly, or use saline irrigation
 - ii) Apply triple antibiotic ointment to wound
 - iii) Apply sterile dressing and bandage
 - iv) Keep wound clean and covered until healed
 - b) Major
 - i) Apply pressure directly to wound with sterile gauze pad
 - ii) If sever bleeding persists DO NOT remove the primary gauze pad from wound
 - iii) Apply pressure to main artery supplying blood to affected area
 - iv) Call 911 and treat for shock
- 2) Internal
 - a) If any internal bleeding is suspected call 911 and treat for shock
- 3) Abrasions
 - a) Clean wound with soap and water, or saline irrigation
 - b) Cover with triple antibiotic ointment
 - c) Apply sterile dressing and bandage
 - d) Keep wound clean and covered until wound is healed
- 4) Blisters
 - a) Clean affected area with soap and water or saline irrigation
 - b) If blister is in an area where continued compression use a sterile needle to aspirate the blister
 - c) After aspiration, clean wound again
 - d) Apply triple antibiotic to blister
 - e) Apply padding to the blister using 2nd Skin®
 - f) Cover with sterile dressing and bandage
- 5) Burns
 - a) First stop the burning
 - b) Cool and flush the burned area with large amounts of cool water
 - c) Cover the burn with dry, sterile dressing Loosely bandage
 - d) DO NOT apply ointment to affected area
 - e) DO NOT ice
 - f) DO NOT break blister
 - g) Large deep burns must be referred to a physician
- 6) Incisions and Lacerations
 - a) Wash wound with saline irrigation
 - b) If wound is deep may need to apply Steri-Strips®
 - i) Begin by applying tape adhesive to cotton tipped applicator and apply to either side of the wound

- ii) Using Steri-Strips® start by applying the first one to the middle of the wound and lifting to close the wound
 - iii) Apply other strips to either side using an alternating side method
 - iv) Apply sterile dressing and bandage to wound
 - v) It may be advised for student athlete to receive stitches as Ster-Strips® are only a temporary dressing (wound must be sutured within 10 hours of injury)
- 7) Splinters
- a) If superficial, remove with sterile tweezers or forceps
 - b) If deep, and/or unable to be removed easily refer to a physician
 - c) Clean with soap and water or saline irrigation
 - d) Apply triple antibiotic ointment
 - e) Cover with sterile dressing and bandage
 - f) May advise parent/guardian to check last Tetanus booster date

Dermatological Problems and Infectious Diseases

- 1) Bacterial Skin Infections
 - a) Folliculitis – Infection of the hair follicle caused by staphylococcus
 - i) MOI: occurs where there is short course hair and can develop where there is friction from either protective padding or shaving
 - ii) Signs and symptoms
 - (1) Redness around hair follicle
 - (2) Followed by a pustule around hair follicle opening
 - (3) A crust will follow that will eventually slough off with the hair
 - iii) Management
 - (1) Moist heat can be applied intermittently to increase circulation
 - (2) Triple antibiotic ointment can also be applied to combat further infection
 - b) Furuncles and Carbuncles – complications from folliculitis
 - i) MOI: Results from friction or blunt trauma
 - ii) Signs and Symptoms
 - (1) Pustule from folliculitis becomes enlarges, deep, red and hard due to internal pressure
 - (2) If condition persists extreme pain and tenderness can occur
 - iii) Management
 - (1) Referral to a physician is needed
 - (2) DO NOT try to squeeze pustule as this may cause infection to spread to other areas of the skin
 - c) Impetigo – A common skin condition that causes blisters and pustules
 - i) MOI: Bacteria enters the skin through opening in the skin
 - ii) Signs and Symptoms
 - (1) Mild itching, soreness, and/or burning
 - (2) Small pustules or vesicles that rupture a honey colored crust
 - iii) Management
 - (1) May clear on its own if washed thoroughly and kept clean and covered
 - (2) Apply antibiotic should be applied
 - (3) Impetigo is a contagious condition and caution should be taken so the student athlete does not infect others
 - d) MRSA (Methicillin Resistant Staphylococcus Aureus)
 - i) MOI: Direct contact with infected person, can also come from sharing personal hygiene products, and contact with infected clothing or protected equipment
 - ii) Signs and Symptoms
 - (1) Small red bumps
 - (2) May look like pimples, boils or spider bites
 - iii) Management
 - (1) Must be seen by a physician and put in antibiotics
 - (2) May require surgical draining of the lesion

(3) Prevention is key, DO NOT share personal hygiene products, take showers right after each practice, and clean athletic equipment daily

2) Fungal Infections

a) Tinea (Ringworm) Infections

Tinea Capitis – Ringworm of the Scalp

Tinea Corporis – Ringworm of the Body

Tinea Cruris – Ringworm of the Groin (Jock Itch)

Tinea Pedis – Athlete's Foot

i) MOI: Coming in contact with others who have the infection

ii) Signs and Symptoms

(1) Red, raised ring on the skin

(2) Itchiness

(3) Scaly looking skin that itches

iii) Management

(1) Topical antifungals

(2) Keep skin clean and dry

(3) DO NOT itch affected area

(4) Prevention is key

(a) DO NOT share towels or personal hygiene products

(b) Always wear shoes, NEVER walk bare foot common shower and pool areas

(c) Keep out of contact of those you know are infected

b) Candidiasis (Yeast Infection)

i) MOI: These fungi reside on the skin, but when too many numbers can cause infection, most commonly in moist warm areas of the body

ii) Signs and symptoms

(1) Deep, beefy – red color that is bordered by small red pustules

(2) Deep, painful fissures may occur

(3) Can lead to life threatening systemic disease

iii) Management

(1) Usually can be treated with over the counter and/or prescription medication

3) Viral Infections

a) Herpes Gladiatorum

i) MOI: Personal direct skin-to-skin contact

ii) Signs and Symptoms

(1) Cluster of blisters

(2) Fever

(3) Sore throat

(4) Burning or itching may be present

iii) Management

(a) Referral to a physician is needed

(b) May be put in antiviral

b) Herpes Simplex (Cold Sore)

i) MOI: Initial contraction come from direct contact with the lesion or mucus of the lesion

- ii) Signs and Symptoms
 - (1) Tingling and hypersensitivity 24 hours before outbreak
 - (2) Local swelling
 - (3) May have headache, sore throat, and pain in the area of the lesion
- iii) Management
 - (1) Herpes simplex usually clears on its own in 10 to 14 days
 - (2) May use over the counter medication to aid in symptoms

Heat and Cold Injuries

1) Heat Illnesses

a) Heat Cramps (Painful involuntary muscle spasm)

- i) MOI: Excessive water and/or electrolyte loss during exercise
- ii) Signs and symptoms
 - (1) Normal pulse and respirations
 - (2) Profuse sweating
 - (3) Dizziness
- iii) Treatment
 - (1) Rest in cool place
 - (2) Increase water intake
 - (3) Increase electrolytes by drinking a diluted electrolyte drink

b) Heat Syncope

- i) MOI: Being in high temperatures causing the person to feel faint or to faint
- ii) Signs and Symptoms
 - (1) Elevated skin and core temp
 - (2) Fainting or feeling faint
 - (3) Weakness
 - (4) Fatigue
 - (5) Hypotension
 - (6) Blurred vision
- iii) Management
 - (1) Get to shaded cool place
 - (2) Increase water intake
 - (3) Elevate legs
 - (4) Record blood pressure and core temp

c) Heat Exhaustion

- i) MOI: Being in high temps, unacclimatized and doing increased exercise
- ii) Signs and Symptoms
 - (1) Thirst
 - (2) Profuse sweating
 - (3) Weakness
 - (4) Confusion
 - (5) Skin is wet, cool and clammy, may appear ashen
 - (6) Respiration is rapid and shallow
 - (7) Pulse is weak
- iii) Management
 - (1) Get student athlete to cool dry place
 - (2) Remove any unneeded equipment
 - (3) Execute rapid cooling of the body
 - (a) Ice bath
 - (b) Cold wet towels or ice bags to the back of neck, under arms, and groin

d) Heat Stroke

- i) MOI: Progression from untreated heat exhaustion
- ii) Signs and Symptoms
 - (1) Disoriented
 - (2) May be unconscious
 - (3) Initial profuse sweating, progressing to no sweating
 - (4) Shallow breathing
 - (5) Hot, dry, reddish skin
 - (6) Increased body temp
 - (7) Rapid strong pulse
- iii) Management
 - (1) Call 911
 - (2) Get student athlete to cool dry place
 - (3) Initiate rapid cooling of the body by placing in the ice bath, or placing ice bags on back of neck, in under arms and in groin area

2) Cold Injuries

a) Frostbite (the freezing of soft tissue)

- i) MOI: Prolonged exposure to cold temps
 - (1) 1st degree - Involves skin and some underlying tissues but the deeper tissues are soft and pliable
 - (2) 2nd degree – Involves subcutaneous tissue
 - (3) 3rd degree – Involves tissue layers deeper than subcutaneous and may lead to complete destruction of the affected area
- ii) Signs and Symptoms
 - (1) Shivering, numbness, shallow breathing, lack of coordination
 - (2) 1st degree – skin is soft and appears red, then white
 - (3) 2nd degree – skin is firm to the touch, but underlying tissue is pliable, diffuse numbness, skin may appear waxy and white later
 - (4) 3rd degree - Skin is hard to the touch, totally numb and can begin to appear white, yellow-gray, skin may also start to blister and in advanced cases can turn black
- iii) Management
 - (1) Move to warm area indoors as soon as possible
 - (2) Warm with moderately warm water (104-108° F) for 30 – 45 minutes
 - (3) Should be referred to hospital

b) Hypothermia (decrease in body temp)

- i) MOI: prolonged time in cold, temp only has to be cold enough to lower body temp, and most hypothermia happens in temps that range from 30° to 50° F.
- ii) Signs and Symptoms
 - (1) Involuntary shivering
 - (2) Difficulty speaking and with coordination
 - (3) Shivering may cease and is replaced by muscle rigidity, apathy, irrational thinking, loss of awareness
 - (4) In severe cases may lose consciousness

- (5) Body temp below 78° F will result in cardiac and respiratory failure, and death
- iii) Management
 - (1) If student athlete is suspected to have hypothermia they should be taken to place indoors to warm
 - (2) Warm body by wrapping in warm blankets and if needed putting on dry clothing
 - (3) If body temp is lower than 96° F EMS should be activated
- iv) Prevention
 - (1) DO NOT allow student athletes to just stand on the sideline when not playing
 - (2) Keep student athletes moving to promote circulation and heat through the muscles
 - (3) Encourage student athletes to dress for the weather, layering is key

Diabetes

Diabetes is characterized by the increase of blood glucose over (fasting) 140 mg/dL. There are two types of diabetes, type one and type two.

- 1) Type 1
 - a) Pancreas either cannot produce adequate amounts of insulin or does not produce insulin at all to clear the blood of high glucose levels
 - b) Student athlete may have insulin pump
 - c) Onset is usually before the age of 30 and is quick happening within days or weeks
- 2) Type 2
 - a) Pancreas cannot produce adequate amounts of insulin or the body becomes resistant to it secondary to weight gain
 - b) Onset is usually slow and may not be diagnosed until person is older than 30-40

The main difference between the types is the onset, and whether or not the student athlete is dependent on insulin.

- 1) Signs and Symptoms of Diabetes
 - a) Frequent urination
 - b) Constant thirst
 - c) Unexplained weight loss
 - d) Constant hunger
 - e) Tiredness and weakness
 - f) Itchy dry skin
 - g) Blurred vision
 - h) Elevated glucose levels (fasting >140 mg/dL; random venous >200mg/dL)
- 2) Management
 - a) Diet control
 - b) May need meds that may or may not include insulin injections

There are also conditions associated with diabetes the ATC may see

- 1) Insulin Reaction – rapid onset – excessively low blood glucoes
 - a) MOI: Caused by the decrease on ingestion of sugar or increased activity levels without eating a proper meal
 - b) Signs and Symptoms
 - i) Hunger
 - ii) Paleness
 - iii) Profuse Sweating
 - iv) Moist clammy skin
 - v) Trembling
 - vi) Increased heart rate, “pounding heart”

- vii) Headache
 - viii) Dizziness
 - ix) Confusion
 - x) Difficulty concentrating
 - xi) Tremors, seizures
 - xii) Unconsciousness
 - c) Management
 - i) Get student athlete to eat sugar or a high sugar food
 - ii) Drink a high sugar drink, orange juice
 - iii) If student athlete is unconscious activate EMS by calling 911, may rub honey cake frosting or syrup on inside of mouth, this will melt and will be swallowed by student athlete
 - iv) Prevention is key, student athlete should be checking blood glucose levels during practice and should carry snacks and juices with them at all times
- 2) Diabetic Coma – slow onset
- a) MOI: either very high or very low blood glucose levels
 - b) Signs and Symptoms
 - i) High Blood Glucose
 - (1) Increased thirst
 - (2) Frequent urination
 - (3) Dry mouth
 - (4) Nausea
 - (5) Vomiting
 - (6) Shortness of breath
 - ii) Low Blood Glucose
 - (1) Shaky or nervous
 - (2) Tired
 - (3) Sweaty
 - (4) Hungry
 - (5) Irritable
 - (6) Confused
 - c) Management
 - i) If student athlete is suspected of being in a diabetic coma activate EMS by calling 911
 - ii) Prevention is key, student athletes should be checking blood glucose levels during practice and carry snacks and juices with them at all times

Drug Ingestion/Overdose

Drug and alcohol use at Stevenson High School is prohibited. If a student is suspected of having ingested drugs or alcohol please follow District 125 policies and procedure. The following Policies and Procedures are here help with overdoes situations and should not override the policies and procedures of the District 125.

- 1) Alcohol
 - a) MOI: the consumption of any alcoholic beverage
 - b) Signs and Symptoms
 - i) Inability to hold conversation
 - ii) Slurred speech
 - iii) No withdrawal from painful stimuli
 - iv) Blue-tinted or pale skin
 - v) Vomiting, including uncontrolled vomiting
 - vi) Poor or absent reflexes
 - vii) Difficulty keeping person awake
 - viii) Problems with coordination and balance
 - ix) Confusion
 - x) Slow, shallow or irregular breathing
 - xi) Unconsciousness
 - c) Management
 - i) If any student athlete is suspected of having an alcohol overdose call 911 right away
 - ii) Contact parent/guardian
 - iii) Contact school administrators
 - iv) Follow all District 125 policies and procedures regarding alcohol overdose
- 2) Drugs (This is an over view on drug overdose, and does not include each drug separately.)

Drugs that are most commonly used are stimulants, sedatives, prescribed drugs, hallucinogens and inhalants

 - a) MOI: the consumption of any illegal controlled substance
 - b) Signs and Symptoms
 - i) Problems with vital signs
 - (1) Temperature
 - (2) Pulse rate
 - (3) Respiratory rate
 - (4) Blood pressure
 - ii) Sleepiness, confusion and coma
 - iii) Skin changes
 - (1) Cool and sweaty
 - (2) Hot and dry
 - iv) Chest pain
 - v) Abdominal pain, nausea, vomiting and diarrhea
 - c) Management

- i) If any student is suspected of having a drug overdose call 911 right away
- ii) Contact parent/guardian
- iii) Contact school administrator
- iv) Follow all District 125 policies and procedures regarding drug overdose

Eye Problems

- 1) Periorbital Ecchymosis (Black Eye)
 - a) MOI: direct blow to eye
 - b) Signs and Symptoms
 - i) Swelling over orbit of eye
 - ii) Ecchymosis around orbit of eye
 - c) Management
 - i) Rule out orbital fracture, and abrasions/lacerations of the cornea
 - ii) Ice affected area
- 2) Foreign Bodies
 - a) MOI: Foreign body enters the eye and causes irritation
 - b) Signs and Symptoms
 - i) Intense pain
 - ii) Tearing of the eye
 - iii) Student athlete may have difficulty opening eye
 - c) Management
 - i) If not embedded in cornea, foreign body should be removed
 - ii) Inspect the eye by asking student athlete to look up while examiner pull down on the bottom eyelid, then instruct the athlete to look down as the examiner pulls up in the upper eyelid
 - iii) Use saline to wash out the eye
 - iv) If unable to remove in this method, patch both eyes contact parent/guardian and if necessary activate EMS
 - v) DO NOT allow athlete to rub eye as this could cause abrasion to the eye
- 3) Sty
 - a) MOI: blocked oil gland
 - b) Signs and Symptoms
 - i) Starts as red nodule
 - ii) Progresses to painful pustule
 - c) Management
 - i) Hot, moist compress
 - ii) Physician referral is need if not resolved in two days
- 4) Conjunctivitis (Pinkeye)
 - a) MOI: Inflammation of the conjunctiva by either bacteria, viruses, allergies or irritant to the eye
 - b) Signs and Symptoms
 - i) Redness
 - ii) Itchiness
 - iii) Gritty feeling
 - iv) Mucus discharge from eye
 - v) Tearing
 - c) Management

- i) DO NOT allow student athlete to rub eye
 - ii) Referral to a physician is necessary
 - iii) Student athlete should refrain from activity until on medication for 24 hours
- 5) Corneal Abrasion
 - a) MOI: Foreign body in eye
 - b) Signs and Symptoms
 - i) Pain
 - ii) Tearing
 - iii) Photophobia
 - c) Management
 - i) DO NOT allow the student athlete to rub eye
 - ii) Cover both eyes
 - iii) Referral to optometrist is needed
- 6) Corneal Laceration
 - a) MOI: Sharp objects in the eye
 - b) Signs and Symptoms
 - i) Sever pain
 - ii) Discomfort
 - iii) Decreased visual acuity
 - iv) Distortion or displacement of the pupil
 - c) Management
 - i) DO NOT allow student athlete to rub eye
 - ii) Pupil should be inspected for symmetry
 - iii) Eye should be covered, intense pressure should be avoided as this may cause intraocular contents to extrude
 - iv) Student athlete should be placed supine or seated upright
 - v) Activate EMS and ask for the optometrist on duty
- 7) Subconjunctival Hemorrhage
 - a) MOI: direct trauma to the eye
 - b) Signs and Symptoms
 - i) White sclera of the eye appears red (this is caused by the capillaries in the eye rupturing)
 - ii) Eye may appear blotchy
 - iii) May have inflammation
 - c) Management
 - i) Requires not treatment
 - ii) Condition will clear itself in 1 to 3 weeks
 - iii) If there is blurred vision, pain, or blood in the anterior chamber of the eye EMS should be activated
- 8) Hyphema
 - a) MOI: direct trauma to the eye (hemorrhage into the anterior chamber of the eye)
 - b) Signs and Symptoms
 - i) Red tinge in the anterior chamber of eye

- ii) Settling blood in the anterior chamber of the eye (if blood is seen in the pupil or iris of the eye this is usually blood collecting in the anterior chamber)
 - iii) Visual acuity may or may not be present
- c) Management
 - i) Activate EMS, also ask for the optometrist on call
 - ii) Both eyes should be patched
 - iii) Student athlete should remain seated or in a semi reclined position
- 9) Detached Retina
 - a) MOI: retina becomes detached when fluid gets between the neurosensory retina and the epithelium and detaches it, can occur with or without trauma
 - b) Signs and Symptoms
 - i) Student athlete states "a curtain fell over my eye"
 - ii) Student athlete states "I keep seeing flashes of light going on and off"
 - c) Management
 - i) Patch both eyes
 - ii) Referral to ophthalmologist is needed
- 10) Orbital Blowout Fracture
 - a) MOI: direct trauma by a blunt object, usually bigger than the orbit of the eye, to the eye
 - b) Signs and Symptoms
 - i) Double Vision
 - ii) Absent eye movement
 - iii) Numbness of the affected side
 - iv) Downward displacement of the eye
 - c) Management
 - i) Apply ice to area carefully
 - ii) Patch both eyes
 - iii) Activate EMS and ask for the ophthalmologist on duty
 - iv) Student athletes should be transported in a seated position

General Illnesses

- 1) Fever
 - a) MOI: usually caused by the body fighting off infection, the body will raise its temp to help kill the infection
 - b) Signs and Symptoms
 - i) If no thermometer is available one can feel with the back of hand to forehead to see if warm
 - ii) Thermometer reading is over 98.6° F
 - iii) Student athlete may say they don't feel good or that they are sick
 - iv) Sluggish
 - c) Management
 - i) Discontinue activity
 - ii) Notify parent/guardian of presents of fever
 - iii) Refer to physician if needed
- 2) Sore Throat
 - a) MOI: infection
 - b) Signs and Symptoms
 - i) Throat is sore
 - ii) May or may not have trouble swallowing
 - iii) May or may not see redness at back of throat
 - iv) May or may not have fever
 - c) Management
 - i) Discontinue activity if needed
 - ii) Notify parents/guardian if fever or redness at back of throat is noticed
 - iii) Refer to a physician if needed
- 3) Headache
 - a) MOI: can be caused by a direct blow to head, dehydration, migraines, or illness (If caused by direct blow or coach is unsure of origin refer to ATC immediately and discontinue play until seen by ATC)
 - b) Signs and Symptoms
 - i) Student athlete will state head hurts
 - ii) May be sensitive to light and sound if a migraine
 - iii) If any other symptoms arise notify ATC and discontinue play immediately
 - c) Management
 - i) If migraine student athlete may need to discontinue play
 - ii) Notify parent/guardian if needed
 - iii) If unsure about what to do notify ATC
- 4) Fainting
 - a) MOI: can be cause by a number of things including head injury
 - b) Signs and Symptoms
 - i) Extreme paleness
 - ii) Sweating

- iii) Numbness and tingling in hands and feet
- iv) Cold clammy skin
- v) Dizziness
- vi) Nausea
- vii) Possible vision problems
- c) Management
 - i) Activate EMS if any student athlete loses consciousness at any time
 - ii) Notify parent/guardian of episode
 - iii) Keep student athlete lying down and support head and neck
 - iv) Loosen tight clothing
 - v) If vomiting turn or roll student athlete to side and clear all liquid from mouth (use universal precautions)

Head Injuries

Any and all suspected head injuries MUST be referred to the ATC immediately. At no time may a coach make a decision about a student athlete's playing ability after a head injury.

1) Brain Injuries

- a) Epidural Hematoma: accumulating blood between the skull and the dura mater
 - i) MOI: usually caused by a direct blow to the head and is usually associated with fractures of the skull
 - ii) Signs and Symptoms
 - (1) Loss of consciousness (LOC)
 - (2) Will awaken with intervals of feeling normal
 - (3) Within about 20 minutes there will be a rapid decline in mental status
 - (4) Increased headache
 - (5) Drowsiness
 - (6) Nausea/vomiting
 - (7) Dilated pupil on side of the hematoma
 - (8) Contralateral weakness
 - (9) Decerebrate Posture
 - iii) Management
 - (1) Activate EMS
 - (2) Assess vital signs
 - (3) Contact parent/guardian
 - (4) Contact ADs
- b) Subdural Hematoma: accumulating blood between the dura mater and the brain
 - i) MOI: usually caused by the acceleration forces to the head
 - ii) Signs and Symptoms
 - (1) Bleeding can be rapid and lead to rapid LOC
 - (2) Bleeding can be slow in which there may be no symptoms for days or weeks after the injury
 - (3) Can have altered states of consciousness
 - (4) May not be able to wake up student athlete after they have fallen asleep
 - iii) Management
 - (1) Activate EMS
 - (2) Contact parent/guardian
 - (3) Early detection is key for good prognosis
 - (4) Contact ADs
- c) Cerebral Contusion: micro hemorrhaging of the brain
 - i) MOI: most common is a direct blow to the occiput or frontal lobe
 - ii) Signs and Symptoms
 - (1) LOC
 - (2) After LOC they are alert, followed by coma

- (3) A danger red flag is when the student athlete has normal neurological signs but still has a persistent headache, dizziness or nausea
- iii) Management
 - (1) Activate EMS
 - (2) Contact parent/guardian
 - (3) Contact ADs
- d) Concussion: "...characterized by immediate and transient impairment of neural function, such as alteration of consciousness, disturbance of vision, equilibrium, etc., due to mechanical forces." (Anderson)
 - i) MOI: can be from a direct blow to the head or from shaking or jarring of the brain in the skull
 - ii) Signs and Symptoms
 - (1) Grade 1
 - (a) No LOC
 - (b) Momentary confusion
 - (c) No amnesia
 - (d) May state "I got my bell rung"
 - (e) All symptoms resolve themselves within 15 minutes
 - (2) Grade 2
 - (a) No LOC
 - (b) Transient confusion
 - (c) Poor concentration
 - (d) Retro/anterograde amnesia
 - (e) Dizziness
 - (f) Ringing in the ear
 - (g) Poor balance and coordination
 - (h) Sensitivity to light and/or noise
 - (i) Delayed reaction time and a feeling of being slowed down
 - (3) Grade 3
 - (a) LOC (can be brief or prolonged)
 - (b) May be associated with neck injury
 - iii) Management
 - (1) Grade 1
 - (a) Student athlete must be removed from play and examined
 - (b) If symptoms resolve within 15 minutes and student athlete passes a functional test they may be allowed to return to play
 - (c) If a second mild concussion occurs within the same game or practice student athlete is not to be permitted to return
 - (d) Notify parent/guardian
 - (2) Grade 2
 - (a) Student athlete must be removed from play and examined
 - (b) Concussion evaluation should be taken every 15 minutes to evaluate the status of the concussion

- (c) Student athlete is not permitted to return to play and must remain symptom free for 3 to 7 days after injury and pass a functional test in order to return to play
 - (d) May need to see a neurologist for clearance to return to play
 - (e) If a second grade 2 concussion is sustained within a season student athlete must remain symptom free for 2 weeks and pass a functional test to be permitted to return to play
 - (f) If there are any abnormalities in a CT or MRI student athlete should not be permitted to return to their sport
- (3) Grade 3
- (a) Activate EMS
 - (b) If LOC is brief student athlete must be symptom free for 7 days and pass a functional test in order to return to play
 - (c) If prolonged LOC student athlete must be symptom free for 14 days and pass a functional test in order to return to play
 - (d) Student athlete is strongly advised and it may be necessary to be cleared by a neurologist before permitted to return to play
 - (e) Any abnormalities in CT or MRI scanning should disqualify student athlete from returning to play
- e) Posttraumatic Headaches:
- i) MOI: vasospasm of the blood vessels of the brain
 - ii) Signs and Symptoms
 - (1) May have localized blindness which is followed by the flashing of bright colored shimmering lights
 - (2) Is not associated with a blow to the head but may have some of the same symptoms
 - iii) Management
 - (1) Student athlete should discontinue play and rest
 - (2) If necessary student athlete should be referred to a physician for follow up
 - (3) Notify parent/guardian
 - (4) If necessary monitor vital signs
- f) Postconcussion Syndrome
- i) MOI: develops after a concussion
 - ii) Signs and Symptoms
 - (1) Headache
 - (2) Dizziness
 - (3) Vertigo
 - (4) Memory loss
 - (5) Irritability
 - (6) Difficulty concentrating
 - iii) Management
 - (1) May have to have CT or MRI to clear student athlete of any bleeding of the brain
 - (2) Follow protocol for management of a grade 2 concussion
- g) Second Impact Syndrome

- i) MOI: a second concussion is sustained after the first concussion is not completely resolved
- ii) Signs and Symptoms
 - (1) Student athlete appears stunned but may or may not walk of the field of play
 - (2) Student athlete will collapse and lose consciousness
 - (3) Dilated pupils
 - (4) Loss of eye movement
 - (5) Coma
 - (6) Respiratory failure
- iii) Management
 - (1) "The usual interval from second impact to brain stem failure is short, usually 2 to 5 minutes" (Anderson)
 - (2) Activate EMS
 - (3) Notify parent/guardian
 - (4) Notify AD
 - (5) Biggest key is prevention, if a student athlete is complaining of any concussion symptoms no matter what the cause they should see the ATC before being allowed to return to play

Cervical Spine and Nerve Injuries

- 1) Muscle Strains
 - a) MOI: can be from forced hypermobility of the joint or from overuse
 - b) Signs and Symptoms
 - i) Pain on palpation (POP) over specific muscle group
 - ii) Limited range of motion (ROM)
 - iii) Decreased strength in the muscle group
 - iv) May have visible spasm of the muscle
 - c) Management
 - i) PRICE
 - ii) Stretch and strengthen the muscle
 - iii) May need training of the synergistic muscle groups to aid in proper mechanics
- 2) Stinger or Burner (Injury to the Brachial Plexus)
 - a) MOI: can be caused by stretching when the head is forced laterally, when the shoulder is abducted and head is forced laterally, or when the clavicle depresses into the superior medial boarder of the scapula
 - b) Signs and Symptoms
 - i) Grade 1
 - (1) Temporary loss of sensation and/or motor function
 - (2) Numbness and tingling down affected arm
 - (3) Student athlete may try to shake arm out
 - ii) Grade 2
 - (1) Significant motor loss
 - (2) Mild sensory loss
 - iii) Grade 3
 - (1) Motor and sensory loss affect student athlete for 1 year or longer
 - c) Management
 - i) Discontinue play
 - ii) PRICE
 - iii) Notify parent/guardian
 - iv) May need physician referral if no improvement in 24 hours or has grade 2 or 3
 - v) Increase motor strength either with electrical stimulation or manual stimulation of the muscles
- 3) Fractures
 - a) MOI: can be from a direct blow, overuse (stress fractures), forced hypermobility of the joint, or spearing in football
 - b) Signs and Symptoms
 - i) POP over vertebra of the cervical spine
 - ii) Limited ROM due to pain
 - iii) May have numbness and tingling in arm, legs, hands, and/or feet
 - iv) Always suspect spinal cord disruption with fractures of the cervical spine
 - c) Management

- i) Support head and neck
 - ii) Check ABC's if student athlete is unconscious, and start CPR is necessary, also locate and use AED
 - iii) Activate EMS by calling 911
 - iv) Do NOT allow athlete to move if it is not necessary, if necessary use log roll technique with enough trained individuals
 - v) Keep calm
 - vi) Notify parent/guardian
 - vii) Notify AD
- 4) Suspected Spinal Cord Disruption
- a) MOI: can be from a direct blow or from forced hypermobility of the joint
 - b) Signs and Symptoms
 - i) Numbness and/or tingling below the fracture site
 - ii) Severe pain with movement of joints below fracture site
 - iii) Student athlete may be unconscious
 - iv) Inability to move joints below the fracture site
 - c) Management
 - i) Call 911 and activate EMS
 - ii) Stabilize head and neck and do not allow student athlete to move spine
 - iii) If student athlete is not prone log roll them as a unit only if there are enough trained individuals present to aid in this maneuver
 - iv) If unconscious check ABC's and start CPR if needed, also locate and use AED

Oral and Dental Conditions

1) Oral Conditions

a) Toothache

- i) MOI: can be from decay or unknown reason
- ii) Signs and Symptoms
 - (1) Pain in one or more teeth
 - (2) May have associated headache or sinus pain
- iii) Management
 - (1) Apply ice if there is localized swelling
 - (2) If abscess is suspected take temperature
 - (3) Notify parent/guardian and refer to dentist

b) Loose Tooth

- i) MOI: can be from normal aging (kids) or from a direct blow to mouth (can be displaced, intruded, or extruded)
- ii) Signs and Symptoms
 - (1) Tooth will be loose in the socket
 - (2) Pain in the tooth that is loose
- iii) Management
 - (1) If tooth is twisted, displaced, or extruded ATC should try to place tooth back in the normal position without forcing it
 - (2) If the tooth is intruded the ATC should not try to relocate the tooth
 - (3) Notify parent/guardian
 - (4) Refer to a dentist right away

c) Chipped or Fractured Tooth

- i) MOI: direct blow to mouth or tooth itself (can involve the enamel, dentin, pulp, or root of the tooth)
- ii) Signs and Symptoms
 - (1) Chips involving just the enamel usually do not cause pain
 - (2) Fractured involving the dentin cause pain and sensitivity to heat and cold
 - (3) Fractures involving the pulp and root cause severe pain and heightened sensitivity
- iii) Management
 - (1) If just the enamel is affected tooth can be "patched" with dental wax and referred to a dentist
 - (2) If a fracture has occurred that causes pain student athlete should be referred to a dentist right away
 - (3) Notify parent/guardian

d) Dislocated or Traumatically Extracted Tooth

- i) MOI: usually a direct blow to the tooth
- ii) Signs and Symptoms
 - (1) Tooth is out of socket
 - (2) Bleeding

- (3) Pain
- iii) Management
 - (1) Locate dislocated tooth
 - (2) DO NOT touch the root of the tooth
 - (3) Place tooth in Save-A-Tooth® if available, if not, place tooth in milk or saline
 - (4) Bite down on gauze to stop bleeding
 - (5) DO NOT allow student athlete to take anything by mouth
 - (6) Reimplantation of tooth within 30 minutes is ideal, reimplantation after 2 hours has a 95% failure rate
 - (7) Notify parent/guardian and refer to dentist right away
 - (8) If after hours and cannot get into dentist, go to ER and ask for the dentist on call to meet you there
- e) Orthodontic Problems
 - i) MOI: improperly fitted braces or retainer, or direct blow to mouth causing appliances to cut mouth
 - ii) Signs and Symptoms
 - (1) Pain with long wires or bracket
 - (2) Pain with improperly fitted retainer
 - iii) Management
 - (1) If wire is too long or bracket is cutting mouth cover with dental wax and if needed have parent/guardian call orthodontist
 - (2) DO NOT attempt to remove a wire that is imbedded in the cheek, tongue or gum, notify parent/guardian and refer to dentist right away
 - (3) If appliance breaks, place in envelop, notify parent/guardian and refer to orthodontist
- 2) Facial Fractures
 - a) MOI: direct blow to the face
 - b) Signs and Symptoms
 - i) Depending on where the fracture is there may or may not be visual deformity
 - ii) Pain at injury site
 - iii) May have inability to move effected area of face
 - iv) If of the mandible or maxilla may have trouble breathing
 - h) Management
 - i) If of the mandible or maxilla maintain airway, and activate EMS
 - ii) Athlete must be referred for x-rays of any suspected fractures
 - iii) If able and necessary splint suspected fracture
 - iv) Notify parent/guardian

Nasal and Ear Conditions

1) Nasal Conditions

i) Epistaxis (nosebleed)

i) MOI: can be caused by a direct blow to the nose or by dry sinus cavities

ii) Signs and Symptoms

(1) Bleeding from the nose

(2) May be profuse if there is also a fracture of the nasal bone

iii) Management

(1) Apply even pressure to both nostrils by pinching the nose

(2) Position student athlete with head in a neutral position, avoid having the student athlete tilt his/her head back

(3) If fracture is suspected avoid movement of the nasal bone and apply ice to the nose

(4) If bleeding is more severe with not suspected fracture ice can be applied to the nose

j) Nasal Fractures

i) MOI: direct blow to nose

ii) Signs and Symptoms

(1) Bleeding is usually present

(2) Nose may appear flattened or “pushed” over to one side of the face

(3) Student athlete may appear to have black eyes

iii) Management

(1) Control any bleeding without disrupting the fracture

(2) Apply ice to the nose if not too painful

(3) Refer student athlete to a physician for x-rays and further treatment

(4) Notify parent/guardian

2) Ear Conditions

a) Auricular hematoma (Cauliflower ear)

i) MOI: caused by repeated blunt trauma to the ear

ii) Signs and Symptoms

(1) Hematoma of the outer ear

(2) The hematoma may form fibrosis if left untreated

(3) May or may not have pain

iii) Management

(1) Ice can be applied to reduce the amount of swelling

(2) If swelling is still present after icing the hematoma may need to be aspirated by a physician

(3) Notify parent/guardian and refer to physician

b) Earache

i) MOI: can be caused by sickness or trauma to the ear

ii) Signs and Symptoms

(1) Pain in the inner ear

- (2) May have associated pain in the head or sinus area
- iii) Management
 - (1) Take student athlete's temp
 - (2) Notify parent/guardian and refer to a physician
- c) Swimmer's Ear
 - i) MOI: failure to dry inner ear after being in water and changing the pH of the ear canal
 - ii) Signs and Symptoms
 - (1) Pain in inner ear
 - (2) Itching
 - (3) May or may not be a discharge of pus
 - (4) Pulling of the external ear will often cause pain
 - (5) If left untreated infection can spread to middle ear and cause balance problems
 - iii) Management
 - (1) Custom ear plugs must be made and worn while in the water
 - (2) Use eye drops to dry the ear canal
 - (3) Notify parent/guardian and refer to a physician

Orthopedic Problems

This section is intended to give a general outline of managing general orthopedic conditions faced by student athletes. Each case is different and each student athlete will be evaluated for the extent of their injury and treated accordingly.

This section does not go through every joint individually. While there are some different conditions associated with specific joints and parts of the body, this section is a general overview and will only address common conditions suffered all over the body.

- 1) Contusions (bruise)
 - a) MOI: direct blow to body
 - b) Signs and Symptoms
 - i) Pain at injury site
 - ii) Swelling and Ecchymosis at injury site
 - iii) Pain have painful ROM
 - c) Management
 - i) If unable to perform sport discontinue play
 - ii) PRICE
 - iii) If able student athlete may resume play
- 2) Sprains (ligament injury)
 - a) MOI: usually cause by tensile forces applied to the ligament
 - b) Signs and Symptoms
 - i) POP over ligament
 - ii) May have limited ROM and strength
 - iii) Swelling and Ecchymosis
 - iv) Positive ligament stress tests
 - c) Management
 - i) PRICE
 - ii) Decrease pain
 - iii) Increase ROM and strength with rehabilitation program
 - iv) Notify parent/guardian and refer to physician if needed
- 3) Strains (muscle injury)
 - a) MOI: over use, or increasing training program when not conditioned
 - b) Signs and Symptoms
 - i) Pain over affected muscle
 - ii) Limited and/or painful ROM
 - iii) Decrease strength
 - iv) May or may not have swelling
 - c) Management
 - i) PRICE
 - ii) Decrease pain
 - iii) Increase ROM and strength

- iv) Notify parent/guardian and refer to a physician if needed
- 4) Subluxation/Dislocation
 - a) MOI: is largely dependent on the joint but occurs when the joint is put into a position it can no longer handle and the bone will sublux (pop out and pop back in) or dislocate (pop out and not pop back in)
 - b) Signs and Symptoms
 - i) Subluxation
 - (1) Pain at joint
 - (2) May have limited ROM and strength
 - (3) Positive apprehension tests applied to the joint
 - (4) Swelling and Ecchymosis may be present
 - ii) Dislocation
 - (1) May or may not have pain at joint
 - (2) Inability to move joint
 - (3) Deformity of the joint
 - (4) May have numbness and tingling distal to the joint
 - (5) May have diminished pulse distal to the joint
 - c) Management
 - i) If any numbness, tingling, or diminished or lose of pulse activate EMS by calling 911
 - ii) Subluxation
 - (1) Splint joint if needed
 - (2) Notify parent/guardian and refer to physician
 - (3) Must have physician clearance to return to play
 - iii) Dislocation
 - (1) Splint joint and refer to a physician for relocation
 - (2) Notify parent/guardian and refer to physician
 - (3) Must have physician clearance to return to play
- 5) Fracture
 - a) MOI: can be from a direct blow to the body or tensile forces applied to the bone
 - b) Signs and Symptoms
 - i) POP over fracture site
 - ii) Positive fracture tests
 - iii) Inability to move affected area
 - iv) May have numbness and tingling distal to fracture site
 - v) May have diminished pulse distal to fracture site
 - vi) May be open fracture and may be bleeding
 - c) Management
 - i) Splint fracture as it presents
 - ii) Check for movement and capillary refill distal to the fracture site before and after splinting fracture
 - iii) Treat student athlete for shock – if student athlete is going into shock activate EMS
 - iv) Check for numbness, tingling and pulse, if any numbness, tingling or diminished pulse activate EMS
 - v) If open fracture, DO NOT touch bone, and activate EMS

- vi) Take universal precautions when dealing with open fracture
- vii) If closed fracture may apply ice to area
- viii) Notify parent/guardian and refer for X-rays

Poison

US Poison Control Number: 1-800-222-1222

IL Poison Control Centers:

Chicago: 312-942-5969

Rush Presbyterian – St. Luke’s Medical Center
1653 West Congress Parkway
Chicago, IL 60612

Normal: 309-454-6666

Bromenn Hospital
Virginia at Franklin
Normal, IL 61761

Springfield: 1-800-252-2022

St. John’s Hospital
800 East Carpenter Street
Springfield, IL 62769

Always attempt to identify the substance that caused the poisoning

If possible keep the object that was containing the poisonous substance, and pass along to responding personnel

Always call poison control as well as 911 for assistance in poisonings

Always protect yourself, if it unsafe to enter the scene, DO NOT put yourself in harms way

Poisoning can be done voluntarily or involuntarily, and the signs and symptoms can mimic other illness. It is important to note that a good history should be taken from the student athlete as well as others with the student athlete at the time of the onset of symptoms. In this section will be general MOIs as well as general management strategies. This section will not discuss specific signs and symptoms for each, as the signs and symptoms vary depending on what the poison was. General signs and symptoms will be listed first.

- 1) General Signs and Symptoms
 - a) Sudden onset of symptoms with no predisposing injury or illness
 - b) Sudden changes in normal behavior with no predisposing injury or illness
 - c) Choking
 - d) Vomiting continuously

- e) Unable to awaken with no predisposing injury or illness
 - f) Irregular heart and/or respiratory rate with no predisposing injury or illness
- 2) MOI:
- a) Absorption
 - b) Ingestion
 - c) Inhalation
- 3) Management
- a) Absorption
 - i) Flush with large amount of water
 - ii) Remove and contaminated clothing
 - iii) If sodium or lime DO NOT flush with water
 - iv) Call 911 and poison control
 - v) Notify parent/guardian
 - vi) Notify Administration
 - b) Ingestion
 - i) It usually not a good idea to encourage student athlete to vomit as the poison could cause more damage on the way back up
 - ii) Many times drinking milk will help coat the stomach and delay the absorption of the poison into the system
 - iii) DO NOT attempt to give the student athlete anything until you contact poison control and are instructed to do so by the operator
 - iv) Activate EMS
 - v) Notify parent/guardian
 - vi) Notify Administration
 - c) Inhalation
 - i) Move student athlete to clean air if able – DO NOT put yourself in harms way
 - ii) Assess student athlete breathing and pulse
 - iii) If needed give rescue breaths
 - iv) Call poison control and 911
 - v) Notify parent/guardian
 - vi) Notify Administration

Reproductive Organ Problems

- 1) Male Genital Injuries
 - a) Testicular Spasm
 - i) MOI: direct blow to the testicles
 - ii) Signs and Symptoms
 - (1) Pain in groin area
 - (2) Pain in testicles
 - (3) Pain in lower abdominal region
 - iii) Management
 - (1) Have student athlete palpate testicles to make sure they are of the same size and consistency
 - (2) Place student athlete prone and have them bring their knees to their chest
 - (3) Can place ice on groin to help relieve pain
 - b) Hydrocele
 - i) MOI: usually caused by a direct blow to the testicles
 - ii) Signs and Symptoms
 - (1) Swelling in the tunica vaginalis
 - (2) Enlarged testicle
 - (3) Usually not painful
 - (4) Feeling of a heavy scrotum
 - iii) Management
 - (1) Notify parent/guardian
 - (2) Physician referral is needed
 - (3) Testicle may need to be surgically drained
 - c) Varicocele
 - i) MOI: they develop over time
 - ii) Signs and Symptoms
 - (1) Can be discomfort, heaviness, to sharp pain
 - (2) Pain worsens with sitting or exertion exercise
 - (3) Pain is relieved by laying prone
 - (4) Testicle feels like a bag of worms
 - iii) Management
 - (1) Intervention may not be necessary
 - (2) Notify parent/guardian
 - (3) Physician referral is necessary but the condition may not need to be corrected
 - d) Hematocele
 - i) MOI: blunt trauma to the testicle
 - ii) Signs and Symptoms
 - (1) Blood in the testicle
 - (2) Enlarged testicle
 - (3) Pain in the groin, testicle, and/or lower abdominal region
 - iii) Management

- (1) Notify parent/guardian
- (2) Physician referral is needed
- (3) May need to be surgically aspirated
- e) Spermatic Cord Torsion
 - i) MOI: can be related to sports participation – incomplete adherence of the testicle to the scrotal wall allow the testicle to rotate within the scrotum
 - ii) Signs and Symptoms
 - (1) Acute onset of pain
 - (2) Enlargement of scrotum
 - (3) May have gastrointestinal upset with nausea and vomiting
 - iii) Management
 - (1) This is an medical emergency
 - (2) Notify parent/guardian, if unavailable to **immediately** take student athlete to hospital activate EMS
 - (3) Surgical intervention is needed in order to return blood supply to testicle
- 2) Female Genital Injuries
 - a) Dysmenorrhea
 - i) MOI: menstrual cycle
 - ii) Signs and Symptoms
 - (1) Pain in lower abdominal region
 - (2) May have bloating
 - (3) May have nausea and vomiting
 - iii) Management
 - (1) Regular activity
 - (2) May take ibuprofen for pain
 - b) Oligomenorrhea
 - i) MOI: usually exercised induced in athletes but may be caused by endometriosis
 - ii) Signs and Symptoms
 - (1) Irregular menstruation cycle
 - (2) Shorter and/or lighter menstruation cycle
 - iii) Management
 - (1) Must rule out endometriosis
 - (2) Student athlete should be seen by a physician to rule out any underlying conditions
 - (3) May participate fully in athletics
 - c) Exercised Induced Amenorrhea
 - i) MOI: absents of menstruation due to higher level of activity seen in sports
 - ii) Signs and Symptoms
 - (1) Lack of monthly cycle
 - (2) Increase in stress fractures caused by osteopenia
 - iii) Management
 - (1) Student athlete should be evaluated for pregnancy
 - (2) Decrease training
 - (3) Increase food intake

- (4) May be started on hormonal therapy
- d) Pregnancy
 - i) MOI: engaging in sexual activity with the penetration of the opposite sex
 - ii) Signs and Symptoms
 - (1) Loss of menstruation cycle
 - (2) Tender swollen breasts
 - (3) Slight bleeding and cramping – this may mimic a menstrual cycle but the bleeding will be much lighter, in both color and duration
 - iii) Management
 - (1) Notify school Administration according to District 125 policies and procedures
 - (2) Urge medical care
- e) Abortion
 - i) MOI: termination of pregnancy
 - ii) Signs and Symptoms of Spontaneous Abortion (miscarriage)
 - (1) Abdominal pain that can be dull, sharp or cramping
 - (2) Low back pain
 - (3) Tissue or clot-like discharge vaginally
 - (4) Vaginal bleeding with or without cramping
 - iii) Risks of Elective Abortion
 - (1) Damage to the womb or fallopian tubes
 - (2) Excessive bleeding
 - (3) Infection of the uterus or fallopian tubes, usually caused by a failed abortion or retained products of conception
 - (4) Increased risk of breast cancer, ectopic pregnancy, miscarriages, and placenta previa in later pregnancies
 - (5) Infection
 - (6) Laceration of Cervix
 - (7) Perforation of uterus
 - (8) Sterility
 - iv) Signs and Symptoms of Complications to Elective Abortion
 - (1) Bladder bowl injury
 - (2) Hemorrhage
 - (3) Infection
 - (4) Retained products of conception
 - (5) Sever, rapid bleeding
 - v) Management
 - (1) Notify school Administration according to District 125 policies and procedures
 - (2) Urge medical care for any person suffering from a miscarriage or failed abortion
- 3) Corresponding Injuries and Illnesses for Both Males and Females
 - a) Inguinal Hernia
 - i) MOI: increased pressure on the abdominal wall and/or a weak spot in the abdominal wall – is most common in males but can occur in females
 - ii) Signs and Symptoms
 - (1) May or may not have pain

- (2) May see a visible bulge on either side of the pubic bone
- (3) May have pain in groin
- iii) Management
 - (1) Hernia will need to be surgically repaired
 - (2) Notify parent/guardian and refer to a physician
 - (3) Discontinue play until hernia is fixed and released to play by a physician
- b) Sexually Transmitted Disease
 - i) MOI: Any disease that can be contracted through sexual intercourse
 - ii) Signs and Symptoms (these can vary depending on what is contracted, this will be a general signs and symptoms list associated with anything that needs further medical interventions)
 - (1) Pain and/or burning with urination, may or may not have frequent urination
 - (2) Lower abdominal pain
 - (3) Testicular pain in men and vaginal pain, (possibly with sex) itching or burning in women
 - (4) Unusual vaginal discharge, may or may not have vaginal odor
 - (5) Fever
 - (6) Headache
 - (7) Swollen lymph glands
 - (8) Rash
 - (9) Fatigue
 - iii) Management
 - (1) Notify Administration according to District 125 policies and procedures
 - (2) Urge medical treatment

County and Local Health Clinics that offer confidential STD screenings

- 1) Lake County Health department
 - Belvidere Medial Building
 - 2400 Belvidere Road
 - Waukegan, IL
 - 847-377-8450
 - Open walking in STD screenings Tuesday starting at 8:00 am, and Thursday starting at 4:00 pm. These appointments are on a first come first serve basis.
- 2) Winnetka
 - LINKS Northshore Youth
 - Health Service
 - 1779 Maple
 - Winnetka, IL 60093
 - 312-441-6190
 - Open for STD screenings Monday thru Thursday 7:00 pm – 10:00 pm, and alternating Saturdays 9:00 am – 12:00 pm

3) Palatine

Crossroads Clinic

512 North Palatine Road

Palatine, IL 60067

708-359-7575

Open for STD screening Monday thru Thursday 9:00 am – 7:30 pm, Friday 9:00 am – 1:30 pm, and Saturday 9:00 am – 12:30 pm

Seizures

- 1) MOI: can be from a specific stimuli but can also be unknown
- 2) Signs and Symptoms
 - a) Conscious Student Athletes
 - i) Bodily sensations
 - ii) Involuntary movements of the face, head, limbs, and may involve the inability to speak
 - iii) Localized weakness or paralysis
 - iv) Experience of powerful emotions
 - v) Time distortions, out of body experiences
 - vi) Nausea, or stomach pain may occur
 - b) Impaired Conscious Student Athlete
 - i) May appear in a trance like state
 - ii) Student athlete will start or continue a purposeful activity with no recollection of activity
 - iii) Movements are usually disorganized, confused and unfocused
 - c) Unconscious Student Athlete
 - i) Student athlete will be unconscious and have either sustained contractions of the skeletal muscles or spasms of the skeletal muscles
 - ii) Student athlete may report tasting or hearing something specific just prior to the onset of the seizure
- 3) General Management for Coaches
 - a) If possible and unconscious cushion fall and protect student athlete from injury producing objects
 - b) Remain calm
 - c) Allow student athlete to continue seizure, and DO NOT try to control or restrain
 - d) DO NOT put anything in the student athlete's mouth
 - e) Allow student athlete to awaken normally after the seizure
 - f) Activate EMS by calling 911, if ATC is not present
 - g) Notify ATC and parent/guardian
- 4) General Management for ATCs
 - a) Be in constant contact with parent/guardian regarding the condition and severity of the known seizure disorder, and notify coaches of findings of each student athlete with a seizure disorder
 - b) Allow student athlete to continue seizure
 - c) DO NOT place anything in the mouth
 - d) Allow student athlete to awaken normally, if does not awaken right away roll student athlete on side to allow saliva to drain from mouth
 - e) Notify parent/guardian and discuss immediate care of student athlete
 - f) If severity or duration of seizure exceeds norm for that student athlete activate EMS

Shock

- 1) MOI: usually from trauma
- 2) Signs and Symptoms
 - a) Pale, cold, clammy, moist skin
 - b) Weak rapid pulse
 - c) Shallow, rapid, irregular breathing
 - d) May have nausea and vomiting
 - e) Restlessness
- 3) Management
 - a) Place student athlete in the prone position and elevate feet
 - b) Activate EMS by calling 911
 - c) Control any bleeding if present
 - d) Monitor vital signs
 - e) Contact parent/guardian
 - f) Keep student athlete calm

Water Safety as it Pertains to the ATC

Unless the ATC is certified as a life guard, under no circumstances should the ATC enter the water to rescue a drowning victim. Below are the policies and procedures to follow if the ATC is NOT a certified life guard, and the victim is drowning

- 1) MOI: inhaling water into the lungs
- 2) Signs and Symptoms
 - a) Student will be struggling in the water
 - b) May be able to ask for help
 - c) Will be gasping for breath between breaks of going under the water
 - d) Will be in a state of panic
- 3) Management for the ATC
 - a) Call for a life guard
 - b) Take any and all directions from the life guard and only assist if asked to by the life guard
 - c) If asked to assist the life guard do just that, ASSIST
 - d) Activate EMS, if not already done by the life guard
 - e) Notify parent/guardian
 - f) Notify Administration

All other injuries that happen in the pool area are able to be treated by the ATC. If the student athlete is able to get out of the water on his/her own will the injury may be treated by the ATC and the policies and procedures for that injury should be followed.

Standard Operational Procedures for Therapeutic Modalities

General Principles of Therapeutic Modalities

Adlai E Stevenson High School District 125 realizes the need to provide quality health care for the student athlete. In order to accomplish this, the ATC is authorized to utilize modalities such as heat, cold, light, sound and electrical stimulation.

The following out line is taken form Chad Starkey's book, "Therapeutic Modalities" and should be used whenever an ATC wants to implement the use of a modality

- 1) Recognition of the Problem
 - a) Identify the type and depth of the involved tissue
 - b) Identify the nature of the pathology
 - c) Determine the stage of healing
 - d) Recognize the indications for the use of modalities and exercise
 - e) Recognize any contraindications to the use of modalities or exercises
 - f) Recognize the demands a patient's activity level places upon the tissue
- 2) Prioritization of the problem
 - a) Develop the logical treatment order based on the cause and effect relationship between the pathology and the signs and symptoms
- 3) Goal Setting
 - a) Develop structure and sequence in the treatment plan
 - b) Establish benchmarks to determine efficacy of the treatment plan
- 4) Treatment Planning
 - a) Determine the modalities and exercises to be used and their sequence based on the patient's problems and treatment goals
- 5) Reevaluation
 - a) Evaluation of the patient's current physical status
 - i) Reassessment of previously identified problems
 - ii) Evaluation techniques that are no longer contraindicated
 - iii) New problems that have developed since the previous examination
 - b) The findings are used to
 - i) Assess the effectiveness of the current treatment protocol
 - ii) Reassess the short and long term goals
 - iii) Determine changed that are needed in the treatment plan

It must be noted that for some of the modalities described in this section a note from a physician will be needed. If a note is needed the student athlete will be informed of this and the physician will then need to indicate the parameters of the treatment. At no time while the student athlete is under the care of a physician will the ATC deviate from the treatment parameter set forth by the physician.

Cryotherapy

- 1) Description
 - a) Cold therapy can be delivered through the application of ice, reusable cold packs and cold compression therapy units
 - b) Can be used to treat acute and chronic injuries, pain, and muscle spasm
- 2) Indications
 - a) Acute injury or inflammation
 - b) Acute or chronic pain
 - c) Postsurgical pain and edema
- 3) Contraindications
 - a) Cardiac or respiratory involvement
 - b) Uncovered open wounds
 - c) Circulatory insufficiency
 - d) Cold allergy and/or hypersensitivity
 - e) Anesthetized skin
- 4) Precautions
 - a) Applying too much pressure with elastic bandage
 - b) Be careful using reusable cold packs and they get colder than ice and are more likely give the student athlete frostbite
 - c) Application of ice to large superficial nerve can cause neuropathy, check the student athlete regularly if applying over superficial nerves
 - d) Content of instant cold packs can burn the skin, if there is a break in the packaging DO NOT use
- 5) Treatment Techniques
 - a) Ice bags
 - i) Fill bag with just enough ice to cover area being treated
 - ii) Remove excess air from back to insure close contact between the ice and skin
 - iii) Apply ice directly to the skin, if hypersensitivity occurs there may be a wet towel placed in-between the ice and skin
 - iv) If warranted wrap an elastic bandage around the ice to apply compression to the injury
 - v) Treatment should last about 20 minutes but can be extended to 30 minutes if there is a wet towel or clothing between the ice and skin
 - vi) Treatment should be repeated in an interval of 20 minutes on and 1 hour off
 - b) Reusable ice packs
 - i) Treatment is same as above but there should always be a wet towel between the skin and ice
 - ii) Student athlete should be checked regularly for signs of frostbite
 - iii) Duration can be extended to 30 minutes
 - iv) Treatment can be repeated at an interval of 30 minutes on and 1 hour off
 - c) Cold compression Therapy units
 - i) Fill the cooling unit with ice and water to the FILL mark

- ii) Allow water to chill for about 10 minutes
 - iii) Apply appropriate appliance to the body part being treated
 - iv) Hook the tube from the cooling unit to the appliance
 - v) Elevate the cooling unit above the body part be treated so the water drains into the appliance
 - vi) Disconnect the hose
 - vii) Treatment time is approximately 20 minutes
 - viii) After treatment is finished reattach the hose to the appliance and place cooling unit below the body part being treated
 - ix) Water will drain from the appliance to the cooling unit and the appliance can be taken off student athlete and fully drained
 - x) Disconnect the hose and discard the water in the cooling unit
- d) Instant cold packs
- i) Shake bag as to make sure all contents are evenly distributed throughout the bag
 - ii) Squeeze the bag to break the inner pouch
 - iii) Shake bag to mix the contents of the bag
 - iv) Place bag on injury
 - v) Be sure to monitor the student athlete for indications the bag has broken, if this happens immediately remove bag and rinse with saline, and watch for chemical burns

Ice Message

- 1) Description
 - a) Water is frozen in a paper cup then messaged into a small treatment area of the skin
 - b) Helps relieve muscle spasm, trigger points
 - c) Is used prior to ROM exercises
- 2) Indications
 - a) Subacute injury or inflammation
 - b) Muscle Strains
 - c) Contusions
 - d) Acute or chronic pain
- 3) Contraindications
 - a) Cases were pressure in contraindicated
 - b) Suspected fractures
 - c) Uncovered open wounds
 - d) Circulatory insufficiency
 - e) Cold allergy and/or hypersensitivity
 - f) Anesthetized skin
- 4) Treatment Techniques
 - a) Paper cups should be filled to $\frac{3}{4}$ full and frozen
 - b) Treatment area should be no bigger than 2 or 3 times the size of the cup
 - c) Surround treatment area with a towel to collect water runoff
 - d) Slowly message the treatment area with ice cup
 - e) Increase pressure of message win decrease time needed to cool treatment area
 - f) When using paper cup as ice melts tear away the paper to reveal more ice
 - g) Treatment duration is between 5 and 15 minutes or until ice runs out

Ice Immersion

- 1) Description
 - a) A bucket or tub is filled with ice and water
 - b) The body part is submerged in the ice and water for the treatment duration
- 2) Indications
 - a) Acute injury or inflammation
 - b) Acute, chronic, or postsurgical pain
 - c) Prior to ROM
- 3) Contraindications
 - a) Cardiac or respiratory involvement
 - b) Uncovered open wounds
 - c) Cold allergy and/or hypersensitivity
 - d) Anesthetized skin
 - e) Absolute inability to tolerate the cold temperature
- 4) Precautions
 - a) If needed student athletes can wear neoprene toe caps to decrease discomfort
 - b) Avoid continuous immersion and withdraw from water
 - c) The limb is in a gravity dependant position and this can increase swelling
- 5) Treatment Techniques
 - a) Fill a bucket or tub with water and ice, temp range should be between 50° and 60° F
 - b) Have student athlete immerse the body part being treated into the water
 - c) Note: do not let the student athlete continuously “dunk” the treatment area in and out of the water, this is an ineffective treatment
 - d) Treatment duration should be between 10 and 15 minutes – treatment time should increase as the amount of adipose tissue increases

Cryokinetics

Cryokinetics is a form of Cryotherapy that utilizes ice to numb the treatment area and then allows the ATC or Physical Therapist (PT) to take the patient through full passive range of motion

All indications and contraindications for cold still apply as well as the treatment duration for each technique. The only difference here is that instead of the ice treatment being last in the order of the rehabilitation program it is first and it is followed by the rest of the treatment for that day.

The Cryotherapy and rehabilitation cycle can be repeated within one session if needed

Hot and Cold Whirlpools

- 1) Description
 - a) A tub filled with warm or cold water that the student athlete submerges the injury in
 - b) Has attached turbine to circulate that water
- 2) Indications
 - a) Decreased ROM
 - b) Subacute or chronic inflammatory conditions
 - c) Peripheral vascular disease
 - d) Peripheral nerve injuries
- 3) Contraindications
 - a) Acute conditions in which the water turbulence will further aggravate injury
 - b) Fever (in hot water)
 - c) Student athletes requiring postural support
 - d) Infectious skin conditions
 - e) General contraindications for hot and cold therapies
- 4) Precautions
 - a) Whirlpool MUST be connected to a ground fault interrupter
 - b) Student athlete is not to touch the turbine motor
 - c) Student athletes receiving treatment should never do so alone, must always have supervision of the ATC
 - d) Keep in mind that the body is placed in a gravity dependant position which could cause an increase in swelling
 - e) DO NOT run turbine dry
 - f) Student athletes with seizure conditions should not use this form of therapy
- 5) Treatment Techniques
 - a) Select the appropriate size tub if available
 - b) Instruct student athlete not to touch the turbine at any time during the treatment
 - c) Fill whirlpool to appropriate depth, enough to fully cover treatment area
 - d) Add whirlpool disinfectant according to the directions
 - e) Adjust temp to match treatment
 - f) Turn turbine on before the student athlete enters the whirlpool
 - g) Place student athlete in a comfortable position to treat affected area
 - h) If injury on the foot or ankle in a cold whirlpool student athlete may use toe caps to keep toes warm
 - i) Make sure the student athlete is out of the whirlpool before turning off the turbine

Moist Heat Packs (Hydrocollator)

- 1) Description
 - a) Silica filled packs are stored in hot water to be use as heating agents
- 2) Indications
 - a) Subacute or chronic inflammatory conditions
 - b) Reduction of sub acute or chronic pain
 - c) Subacute or chronic muscle spasm
 - d) Decrease ROM
 - e) Hematoma resolution
 - f) Reduction of joint contractures
 - g) Infection
- 3) Contraindications
 - a) Acute conditions
 - b) Peripheral vascular disease
 - c) Impaired circulation
 - d) Poor thermal regulation
- 4) Precautions
 - a) Do not allow moist heat pack to come in contact with the treatment area
 - b) Do not allow student athlete to lay or sit on moist heat packs
- 5) Treatment Techniques
 - a) Cover moist heat pack with either commercial covering or 4 layers of terry cloth towel
 - b) Place pack on treatment area
 - c) Check student athlete after 5 minutes to insure there is no burning of the skin
 - d) After treatment, return the moist heat pack to the Hydrocollator for rewarming
 - e) Treatment duration can last anywhere from 20 to 30 minutes

Paraffin Bath

- 1) Description
 - a) A mixture of wax is melted and applied to the treatment area to deliver heat to the treatment area
- 2) Indications
 - a) Subacute and chronic inflammatory conditions
 - b) Limitation of motion immobilization
- 3) Contraindications
 - a) Open wounds
 - b) Skin infections
 - c) Sensory loss
 - d) Peripheral vascular disease
- 4) Precautions
 - a) DO NOT allow student athlete to touch the bottom or sides, this may cause burns
 - b) Avoid using on student athletes who need to catch and throw, as the wax has a mineral oil in it and will leave the hand slippery
- 5) Treatment Techniques
 - a) Always have student athlete wash hands thoroughly before starting any treatment
 - b) Immersion Bath
 - i) Have student athlete dip his/her hand into the paraffin wax and remove
 - ii) Allow a few seconds to let the wax dry
 - iii) Dip the hand into the wax 6 to 12 more times making sure never to dip farther than the last
 - iv) Then place the hand back into the paraffin bath, making sure the student athlete does not touch the bottom or sides
 - v) Treatment duration is 15 to 20 minutes
 - vi) After treatment scrap off the wax and return it to the bath
 - c) Pack (Glove) Method
 - i) Have student athlete dip his/her hand into the paraffin wax and remove
 - ii) Allow a few seconds to let the wax dry
 - iii) Dip hand into the wax 7 to 12 more time making sure never to dip farther than the last
 - iv) After final withdraw cover with plastic bag and wrap in a terry cloth
 - v) Treatment duration is 15 to 20 minutes
 - vi) After treatment wax can be returned to the paraffin bath

Contrast Therapy

- 1) Description
 - a) Consists of alternating between hot and cold treatments
 - b) Can be used with two whirlpools or with reusable hot and cold packs
- 2) Indications
 - a) Ecchymosis removal
 - b) Edema reduction
 - c) Subacute or chronic inflammatory conditions
 - d) Impaired circulation
 - e) Pain reduction
 - f) Increase ROM
- 3) Contraindications
 - a) Acute injuries
 - b) Hypersensitivity to cold
 - c) Relative contraindications of cold application
 - d) Relative contraindications of heat application
 - e) Relative contraindications to whirlpool use
- 4) Treatment Techniques
 - a) Immersion
 - i) Make sure there are two tubs available for use and they you can position them close together
 - ii) Fill one bath with water temp at 50° to 60° F and the other with a temp range of 105° to 110° F
 - iii) Instruct student athlete to start with either hot or cold application with timed intervals of 1-2 minutes in cold and 3-4 minutes in hot
 - iv) Total treatment duration is 20 to 30 minutes
 - b) Hot/Cold Packs
 - i) Make sure packs are within reach of the student athlete and will be able to remain hot and cold throughout the treatment
 - ii) Instruct the student athlete to start with either hot or cold application with timed intervals of 1-2 minutes for cold and 3-4 minutes for hot

Therapeutic Ultrasound

Please refer to Appendix #5 for the treatment durations and intensities

- 1) Description
 - a) A deep heating using high frequency sound waves to generate thermal and nonthermal affects to the injured area
- 2) Indications
 - a) Joint contractures
 - b) Muscle spasm
 - c) Neuroma
 - d) Scar tissue
 - e) Sympathetic nervous system disorders
 - f) Trigger points
 - g) Warts
 - h) Spasticity
 - i) Post acute reduction of myositis ossificans
 - j) Acute inflammatory conditions (pulse output)
 - k) Chronic inflammatory conditions (continuous output)
- 3) Contraindications
 - a) Acute conditions with a continuous output
 - b) Ischemic areas
 - c) Over area of deep vein thrombosis
 - d) Anesthetic areas
 - e) Over cancerous tumors
 - f) Over sites of active infections or sepsis
 - g) Over spinal cord or areas of large nerve plexus in high doses
 - h) Exposed metal that penetrates the skin
 - i) Areas around the eyes, heart, skull, or genitals
 - j) Over the thorax in the presents of a pacemaker
 - k) Pregnancy when used over the abdominal region of a women
 - l) Over the pelvic or lumbar region of a menstruating women
 - m) Stress fracture sites and sites over osteoporosis
- 4) Precautions
 - a) Symptoms may increase after the application of ultrasound due to an increase of inflammation. If symptoms do not resolve within the third or fourth application discontinue use of ultrasound
 - b) Use caution when applying ultrasound to area close to the spinal cord
 - c) Use caution when applying ultrasound to areas with metal plating
 - d) Use of ultrasound on or around growth plates in not contraindicated but should be use with extreme caution
- 5) Treatment Techniques
 - a) Determine the method and mode of application

- b) Clean treatment area and remove any dirt, oil or grime
 - c) Determine the type of coupling method
 - i) Direct coupling can be achieved by using an ultrasound gel applied directly to skin and the ultrasound head on top of that
 - ii) Immersion coupling involves immersing the treatment area in a tub of water and applying the ultrasound head under the water about 1 inch away from the treatment area
 - iii) Pad or bladder method involves either getting a commercially made pad or filling a plastic bag with either water or ultrasound gel that is coated with the ultrasound gel
 - d) If direct coupling method, apply ultrasound gel to treatment area
 - e) Make sure to explain sensations the student athlete may feel during the treatment
 - f) Advise the student athlete to report any adverse sensations right away
 - g) Turn on machine
 - h) Make sure output is a zero
 - i) Select the mode of the ultrasound (continuous or pulsed)
 - j) Be sure to check that the watt meter displays the appropriate treatment output
 - k) Set timer to appropriate treatment duration (Appendix #5)
 - l) Begin to move the head slowly over treatment area and press start on the machine
 - m) Move the head at a moderate pace (4 cm per second) using firm pressure with overlapping stroke
 - n) If heating of the tissue is felt move the sound head faster if this sensation does not diminish heating sensation discontinue treatment
 - o) If the sound head begins to stick to the skin due to lack of gel, press the pause button and apply more gel
- 6) Machine Upkeep
- a) Ultrasound machine must be check every year
 - b) Must be certified and calibrated by a licensed practitioner yearly to insure proper delivery of the sound waves

Phonophoresis

- 1) Description
 - a) Whole molecules of medication are driven through the skin using the ultrasound wave
- 2) Indications
 - a) Delivering medication to large areas
 - b) Noninvasive
- 3) Contraindications
 - a) Any contraindications to the application of ultrasound
 - b) Any contraindications to the application of the medicine
- 4) Treatment Techniques
 - a) Preheating of the skin is advised to aid in the delivery on the medications
 - b) Use only the direct coupling method and the other methods have not be proven effective in the transmission of medications
 - c) Make sure the skin is well moistened, avoid areas of dry skin
 - d) Position extremity to encourage circulation
 - e) Use continuous output
 - f) Follow the same procedure as ultrasound application and add the medication to the gel before applying ultrasound treatment
 - g) After treatment cover remaining medication with occlusive dressing

Phonophoresis will only be done with a physician note and prescribed medication

Electrical Stimulation

All electrical stimulation has general contraindications. Listed below are the general contraindications to ALL types of electrical stimulation techniques.

- 1) Cardiac disability
- 2) Demand-type pacemakers
- 3) Pregnancy
- 4) Menstruation
- 5) Cancerous lesions
- 6) Sites of infection
- 7) Exposed metal implants
- 8) Areas of particular nerve sensitivity – carotid sinus, esophagus, larynx, pharynx, on or around the eyes, upper thorax, temporal region
- 9) Sever obesity
- 10) Epilepsy
- 11) Electronic monitoring equipment

Outlined below are all the types of electrical stimulation offered at Stevenson High School. Any student wishing to receive electrical stimulation treatments MUST have a note form a physician stating the type of treatment and the parameters used.

- 1) High Voltage Pulsed Stimulation
 - a) Description
 - i) This type of stimulation uses a monophasic current
 - ii) Can be used for muscle reeducation, nerve stimulation, edema reduction, and pain control
 - b) Indications
 - i) Reeducation of peripheral nerves
 - ii) Delay of denervation and atrophy
 - iii) Edema reduction
 - iv) Increase local blood flow
 - v) Restoring ROM
 - (1) Reduces muscle spasm
 - (2) Inhibition spasticity
 - (3) Reeducation of partially denervated muscle
 - (4) Facilitation of voluntary motor function
 - c) Precautions
 - i) If there are any contraindications to the stimulation of the muscle fiber, tendon, or bony insertion
 - ii) Muscle fatigue can set in if treatment intensity is to high
 - iii) Improper use or storage of the electrodes can cause them damage

- iv) Intense or prolonged muscle contractions can lead to muscle spasm or muscle soreness
- d) Treatment Techniques
 - i) Electrode placement and General Setup
 - (1) Neuromuscular stimulation
 - (a) Bipolar: proximal and distal to the muscle being treated
 - (b) Muscle contraction should be strong but not painful
 - (2) Pain Control
 - (a) Gate Control Mechanism
 - (i) Monopolar or Bipolar: electrode should be placed directly over painful site
 - (ii) Ramp up to muscle contraction then back down until you no longer see the muscle contraction (sensory-level)
 - (b) Opiate Release
 - (i) Monopolar or Bipolar: directly over painful site, distal to spinal nerve root origins, trigger points, or acupuncture points
 - (ii) Achieve muscle contraction and ramp up to as high as student athlete can take
 - (3) Sensory Level Control of Edema Formation
 - (a) Monopolar: the negative electrode over the injured area
 - (b) Injured area is placed in a tub of water with the negative electrode in the water
 - (c) Disperser pad is placed away from the injured site
 - (d) Ramp up to muscle contraction then back down until you no longer see the contraction (Sensory level)
 - (4) Motor Level Edema Reduction
 - (a) Monopolar or Bipolar:
 - (i) Monopolar – Active electrode follows the course of the venous return
 - (ii) Bipolar – Proximal and distal to the injury site
 - (b) Injury site should be elevated
 - (c) Ice can be applied as well as a compressive wrap to encourage venous return
 - (d) Ramp up to a comfortable muscle contraction
 - ii) Treatment Techniques for all
 - (1) Turn the unit on
 - (2) Press the reset button and start over every time there is a treatment
 - (3) Select the output parameters
 - (4) Set treatment duration
 - (5) Place electrodes on student athlete (this can also be done right after turning the machine on)
 - (6) Begin treatment
 - (7) Increase intensity slowly
 - (8) Adjust electrode balance if needed
- 2) Transcutaneous Electrical Nerve Stimulation (TENS)
 - a) Description

- i) A type of electrical stimulation that patients can get to use at home
 - ii) Works to reduce pain and used for pain control
 - b) Indications
 - i) Control of acute or chronic pain
 - ii) Management of postsurgical pain
 - iii) Reduction of post-traumatic acute pain
 - c) Contraindications
 - i) Pain of a central origin
 - ii) Pain of an unknown origin
 - d) Precautions
 - i) This is a treatment that masks the pain and does not address the underlying condition that causes the pain
 - ii) Improper use may lead to skin irritation or electrode burns
 - iii) Intense or prolonged stimulation can lead to muscle spasm or soreness
 - iv) Intake of 200 mg or more can reduce the effectiveness of the TENS unit
 - v) Narcotic use decreased the effectiveness of the TENS unit
 - e) Electrode Placement
 - i) Direct – Placed directly in injury site
 - ii) Stimulation Point – Motor, trigger or acupuncture points are targeted
 - iii) Spinal Cord Level – Spinal cord nerve roots
 - iv) Contiguous – Used when direct placement is contraindicated, uses four electrodes and can be placed with the current running parallel or crossed
 - v) Dermatome – One electrode is placed at the corresponding nerve root and the other is placed at the distal end of the dermatome
 - vi) Contralateral – Electrodes are placed on the opposite side of the injured body part about where the pain is
 - f) Treatment Techniques
 - i) Adjust the TENS for correct output (sensory, motor or noxious)
 - ii) Select and apply proper electrodes to injury site
 - iii) Set output mode
 - iv) Make sure the unit is off, make sure the output starts at zero
 - v) Increase the output slowly on channel one to desired intensity
 - vi) Increase the output slowly on channel two to desired intensity
 - vii) Balance the channels
 - viii) Fine-tune the output
 - ix) Provide home care instructions
- 3) Interferential Current Stimulation (IFC)
 - a) Descriptions
 - i) Uses one wave that is high frequency sine wave while the other produces a variable sine wave
 - ii) As the two cross in the body and have a frequency of 1 to 299 Hz
 - b) Indications
 - i) Acute pain
 - ii) Chronic pain

- iii) Muscle spasm
- c) Contraindications
 - i) Pain of a central origin
 - ii) Pain of an unknown origin
- d) Precautions
 - i) Improper use can result in burns or irritation of the skin from the electrodes
 - ii) Intense or prolonged stimulation can result in muscle spasm or soreness
- e) Electrode Placement
 - i) Four electrodes are used to “surround” injury site
 - ii) Channels should cross
- f) Treatment Techniques
 - i) Turn the unit on
 - ii) Apply electrodes
 - iii) Resent all parameters
 - iv) Select application mode
 - v) Adjust beat frequency
 - vi) Adjust sweep frequency
 - vii) Begin treatment
 - viii) Increase intensity during treatment if needed
 - ix) Adjust balance if needed
 - x) May be used in conjunction with heat or ice
- 4) Neuromuscular Electrical stimulation (NMES)
 - a) Description
 - i) Used strong stimulation of the muscle contraction for reeducation and strength
 - b) Indications
 - i) Maintaining range of motion
 - ii) Prevention of joint contractures
 - iii) Increase local blood flow
 - iv) Muscle reeducation
 - v) Prevention of disuse atrophy
 - vi) Decrease muscle spasm
 - c) Contraindications
 - i) Musculotendinous lesions, where the contraction of the muscle will cause further injury
 - ii) If there is not a secure bony attachment of the muscle being treated
 - d) Precautions
 - i) Improper use may cause the electrodes to burn or irritate the skin
 - ii) Intense or prolonged stimulation can cause muscle spasm
 - iii) Intense contraction of the muscle can generate too much tension on the muscle
 - e) Electrode Placement
 - i) Proximal and distal ends of the muscle being treated
 - f) Treatment Techniques
 - i) Turn on the machine and make sure output is at zero
 - ii) Prepare and apply electrodes

- iii) Make the interrupt switch available (this will immediately stop the machine when pushed)
 - iv) Set pulse variables
 - v) Set current variables
 - vi) Adjust frequency
 - vii) Set treatment duration
 - viii) Initiate treatment
 - ix) Increase intensity
 - x) Adjust ramp for treatment goals
 - xi) Adjust duty cycle to match treatment goals
 - (1) Muscle strengthening – ON 10 seconds , OFF 50 seconds
 - (2) Muscle endurance – ON and OFF should be of equal durations
- 5) Iontophoresis
- a) Description
 - i) “is the introduction of ionized medication into the subcutaneous tissues using a low-voltage”
 - b) Indications
 - i) Acute pain
 - ii) Chronic inflammation
 - iii) Arthritis
 - iv) Myositis ossificans
 - v) Myofascial pain syndromes
 - vi) For a local anesthetic before injection or other minor procedures
 - c) Contraindications
 - i) Adverse reactions or hypersensitivity to the medication
 - ii) Adverse reactions of hypersensitivity to electrical stimulation
 - iii) Pain or other syndromes of an unknown origin
 - d) Precautions
 - i) Require physicians note for the medication and treatment
 - ii) The exact amount of medication that is delivered to the body is unknown
 - iii) Redness of the skin under the patch is common
 - iv) Doses that are too intense can cause burns beneath the electrodes
 - v) DO NOT reuse electrodes
 - e) Electrode Placement
 - i) Delivery electrode is placed over treatment area (note you must know the polarity of the medication as the polarity of the delivery electrode must be of the opposite polarity)
 - ii) Return electrode is place 4 to 6 inches away
 - f) Treatment Techniques
 - i) Clean the treatment area (treatment area should be free of cuts, abrasions, and other open wounds)
 - ii) Prepare the active electrode or electrodes
 - iii) Wet the return electrode with appropriate buffer solution
 - iv) Position electrodes

- v) Set electrode polarity
- vi) Provide patient instructions
- vii) Set treatment dose
- viii) Adjust output parameters
- ix) Administer any follow-up treatments
- x) If needed repeat the treatment with opposite polarity (only if two different medications are use with opposite polarities)

Ultrasound and Electrical Muscle Stimulation Combo

- 1) Description
 - a) Uses the combination of electrical muscle stimulation and ultrasound to produce the effects of both on the muscle
 - b) Can also be used to tire out muscles through the heating and contracting of the muscle (works to break the pain-spasm-pain cycle)
- 2) Indications
 - a) Trigger points
 - b) Muscle spasm
 - c) Decrease the adherence of scar tissue
- 3) Contraindications
 - a) Any contraindications to ultrasound
 - b) Any contraindications to electrical stimulation
 - c) Any contraindications to the contraction of the muscle
- 4) Precautions
 - a) Increased contraction of the muscle may increase muscle spasm or soreness
- 5) Treatment Techniques
 - a) Identify trigger point within the muscle
 - b) Apply single electrode about 6 inches away from active trigger point, preferably within the same muscle
 - c) Select current
 - d) Select duration of treatment
 - e) Select the mode of output for the ultrasound treatment
 - f) Set watt meter to appropriate output of the ultrasound
 - g) Apply ultrasound gel to the trigger point
 - h) Apply the ultrasound head to treatment area
 - i) Increase the intensity while moving the ultrasound head over area
 - j) Look for muscle contraction and stop increasing the intensity of electrical stimulation when the patient feels maximal contraction of the muscle
 - k) Start the treatment
 - l) Continue moving the ultrasound head throughout the treatment
 - m) Give appropriate follow-up instructions

Intermittent Compression

- 1) Description
 - a) "Circumferential compression applies an equal amount of pressure to all parts of the extremity simultaneously"
- 2) Indications
 - a) Post traumatic edema
 - b) Postsurgical edema
 - c) Primary and secondary lymphedema
 - d) Venous stasis ulcers
 - e) Prevention of deep vein thrombosis
- 3) Contraindications
 - a) Acute conditions in which there has not been a determination of a fracture
 - b) Conditions in which added pressure would cause more injury
 - c) Peripheral vascular disease
 - d) Arteriosclerosis
 - e) Edema secondary to congestive heart failure
 - f) Ischemic vascular disease
 - g) Gangrene
 - h) Dermatitis
 - i) Deep vein thrombosis
 - j) Thrombophlebitis
- 4) Precautions
 - a) Watch for compression syndrome when treating the lower leg
 - b) Watch for wrinkling of the Stockinette, this may cause increased pressure where wrinkled
- 5) Treatment Techniques
 - a) Remove jewelry from treatment area
 - b) Determine patient's blood pressure
 - c) Make sure to measure the effectiveness of the treatment but taking girth measurements before and after the treatment
 - d) Cover the treatment area with a Stockinette
 - e) Select appropriate appliance for treatment area
 - f) Insert limb into the appliance
 - g) Elevate limb
 - h) Connect appliance to the unit
 - i) Select ON/OFF times
 - j) Select treatment duration
 - k) Inform patient of treatment sensations
 - l) Can have patient wiggle fingers or toes to make sure proper circulation of blood is not compromised
 - m) If long term treatment are being applied make sure to interrupt the treatment to check for proper blood circulation

- n) At termination of treatment make sure to turn OFF the unit and disconnect from the appliance

Message

When performing any type of message ATC MUST have permission from the student athlete and/or from the parent/guardian. ATC should also wear gloves and NEVER perform a message without a witness to the message.

- 1) Description
 - a) Uses touch to produce muscular, nervous, and cardiovascular changes
 - b) Used to break up adhesions within the muscles or myofascial adhesions
- 2) Indications
 - a) Relieve fibrosis
 - b) Increase venous return
 - c) Reduction of lymphatic or venous edema
 - d) Break the pain-spasm-pain cycle
 - e) Evoke systemic relaxation
 - f) Improve or stimulate local blood flow
 - g) Increase range of motion
- 3) Contraindications
 - a) Acute sprains or strains
 - b) Area of active inflammation
 - c) Site of nonunion fractures
 - d) Skin conditions in area of treatment
 - e) Open wounds
 - f) Infection causing lymphangitis
 - g) Phlebitis or Thrombophlebitis
 - h) Varicose veins
 - i) Arteriosclerosis
 - j) Cellulitis
 - k) Abscess or other forms of infection
- 4) Precautions
 - a) May increase inflammatory response
 - b) Use caution (decrease pressure) when message is used on areas of decreased sensation
 - c) So not use message for swelling caused by cardiovascular insufficiency
- 5) Treatment Techniques
 - a) Effleurage
 - i) Performed in a rhythmic manner
 - ii) Place hands parallel to the treatment area and symmetrical to the long axis of the treatment area
 - iii) Apply pressure to area with pressure sufficient to gain treatment goals
 - iv) Using a mirrored motions stroke the body along the long axis of the treatment area
 - v) Lightly glide the hands back to starting position using the fingertips and repeat process

- vi) Can also use the same process but instead of hands being parallel they can follow each other
- b) Pétrissage
 - i) Using two hands gently lift the skin and muscle and roll tissue back and forth
 - ii) Repeat for a few repetitions
- c) Friction Massage
 - i) Place patient in a position in such that the muscle is in a relaxed position
 - ii) Start lightly and gradually increase pressure that is circular or perpendicular to the underlying tissue
 - iii) As pressure increased depth of treatment increases
- d) Tapotement
 - i) Hands should bounce off the treatment area in a soft fast manner
 - ii) Hacking – contact is made with the ulnar side of palm
 - iii) Cupping – hands are slightly cupped, contact of the hand is with the heel of the hand and fingertips
 - iv) Pincement – skin is lightly pinched between the fingertips
 - v) Rapping – hand is made into a loose fist and contact is made with the fingers of the closed fist
 - vi) Tapping – fingers are lightly touched to the treatment area as if you were playing the piano
- e) Myofascial Releases
 - i) J-Stroke – One hand is placed to create tension while the other hand, using the first and middle fingers, places moderate pressure in the opposite direction of the tension in a J stroke
 - ii) Focused Stretching – place the heels of the hands on treatment area in a crossed arm fashion, using opposite pull, push hands apart
 - iii) Skin Rolling – Begin by pinching the skin above the treatment area, then lift and roll the skin over treatment area in the same direction of the tension
 - iv) Arm/Leg Pull – Grasp the extremity with one hand, place other hand medial to the tension and stretch in a pulling manner
- f) Edema Reduction
 - i) Elevate extremity
 - ii) Apply lotion to treatment area
 - iii) Start by making long slow strokes to the proximal end of the injury
 - iv) Slowly move distal to the extremity always returning to the starting point
 - v) After reaching the distal aspect of the injury begin working back to the starting point

Legal Terminology

- Abandonment – The desertion of a patient-practitioner relationship by the healthcare provider without the consent of the patient/guardian
- Accident – An unforeseen event occurring without the will or design of the person who has caused it
- Actual Cause – The degree to which a health care practitioner’s actions are associated with the adverse outcomes of a patient’s care
- Assumption – The legal defense that claims that the participant knows about and understood there are risks involved in participation in sports and willingly participated regardless of risk.
- Athletic Trainer – An individual who has met minimum athletic training requirements as established in the Illinois Athletic Trainers Practice Act and by the National Athletic Trainers Association, and must hold Board of Certification accreditation and State of Illinois license
- Attractive Nuisance – Unguarded, dangerous contrivance, apparatus, building, or condition of land which a child may be expected to use or with which he is likely to play
- Civil Offence – Non-criminal action or lack of it resulting in harm to an individual or group
- Conflict of Interest – When the interests of one individual or group are discordant or in competition with those of another individual or group
- Contributory Negligence – Behavior or conduct by the injured person which legally contributes to his/her own harm
- Defendant – An individual or corporate body against whom a suit is brought
- Disqualifying Conditions – Injuries, illness, or other medical conditions that pose an undue risk to athletes, their teammates, or their competitors
- Exculpatory Clause – A signed release from a patient/guardian that waives all future legal claims against an athletic trainer or the employing institution
- Foreseeability – The ability to project the likely outcome of an act
- In Loco Parentis – A situation in which the teacher/coach is acting in place of the parent by performing his/her legal function
- Injury – Any harm or hurt, physical or moral, to a persons’ ability
- Malfeasance – Wrongful performance or act
- Misfeasance – Improper performance or act
- Malpractice – Liability-generating conduct associated with the adverse outcome of a patients’ treatment
- Minor – A person under the legal age for adult responsibilities as decisions
- Negligence – Failure to act as a reasonably prudent person would act under the same circumstances
- Nonfeasance – Failure to perform legal duty
- Nuisance – The nature of a condition which by its very existence may endanger life and health
- Omission – A failure to act when there was a legal duty to do so
- Plaintiff – An individual or group which brings suit

Policy – A type of plan that expresses an organizations' intended behavior relative to a specific program sub-function

Procedure – A type of operational plan that provided specific directions for members of an organization to follow

Proximate Cause – The conduct, active or passive, to which injury or harm is directly traceable (usually called the legal cause of injury)

School Nurse – Stevenson High School District 125 employee who functions under the guidelines as set forth in the Illinois Nursing Act of 1987

Student Athletic Trainer – A student who has developed an interest in the field of athletic training, but has not met the requirements as set forth but the Illinois Athletic Trainers Practice Act and by the Board of Certification

Tort – A legal wrong for which a remedy will be provided, usually in the form of monetary damages

Vis Major – An uncontrollable act of the elements

Appendices

Appendix #1

Injury Report Form

Name: _____ ID: _____

Parents Names and Phone Numbers

Sport: _____ Coach: _____ Year: _____

Injury Occurred in: _____ Comp. _____ Practice _____ Non-Athletic _____

Date of Injury: _____ Date Reported: _____

Side Injured: L R B/L N/A

Body Part Injured: _____

Anatomical Position: _____ Injury: _____

Pain at Rest: _____ With Activity: _____ Activity: _____

Amount of Swelling and Ecchymosis:

None Mild Moderate Severe

Severity of Injury: 1st deg 2nd deg 3rd deg N/A

History and MOI: _____

MMT's and Special Tests:

Treatment Plan:

Referral: None ER MD: _____

ATC: _____

Appendix #2

Emergency Protocol for Practices Outside the Coverage Window

When an Athletic Trainer isn't available to assist you, during practices **BEFORE OR AFTER** the coverage window, please follow these procedures when an injury occurs:

1. Coaches are responsible for administering immediate first-aid and to decide if there is a need for further medical assistance. **(Please see General Emergency Procedures on page 21).**
2. A nurse is in the west building starting at 7 a.m., with both offices opened by 7:30 am, should additional care be warranted (ext. 4025-West and ext. 4019-East).
3. Beginning at 6:30 a.m. pressing the call button in the gym will connect you to the switchboard for further assistance in calling 911, contacting security, Sodexo or the nurse.
4. The injured athlete should be directed to see the athletic trainer as soon as possible before the next practice or contest. The athletic training room is open during 7th and 8th period (for athletes who have a scheduled study hall or free period) and after school. (See Hours of Operation on page 9)
5. The coach should also follow up with the parents immediately so they are aware of the situation.

Appendix #3

Emergency Phone Numbers

- 1) All life threatening injuries
 - a) Dial 911 on any phone
 - b) Call 911 as soon as possible if necessary
 - i) When calling the paramedics on the phone, 911 operator will want to know the following:
 - (1) Your name and position (i.e. Coach)
 - (2) Describe nature of injury
 - (3) Give location of injured student athlete, may need to state which outside field or which building, east or west
 - (4) State gender and age of student athlete
 - (5) Give you present phone number
 - ii) Call and send security personnel to direct EMS to the injured student athlete
 - iii) Have emergency information on the student ready for EMS
 - c) Contact parent/guardian as soon as possible
- 2) Non-Emergency Numbers
 - a) Paramedic and Fire
 - i) 847-634-2512
 - b) Police Department (Lincolnshire)
 - i) 847-883-9901
 - c) Lake County Sheriff
 - i) 847-360-6300
- 3) Hospitals
 - a) Lake Forest Hospital
 - i) 847-234-5600
 - b) Libertyville-Condell
 - i) 847-362-2900
 - c) Highland Park
 - i) 847-432-8000
- 4) Poison Control
 - a) US 800-222-1222
 - b) Chicago 312-942-5969
 - c) Normal 309-454-6666
 - d) Springfield 800-252-2002
 - e) For addresses refer to Poisoning on page 61
- 5) Police Liaison
 - a) Kimberly Covelli 847-415-4023
- 6) Athletic Department
 - a) 847-415-4225
 - b) Athletic Training Room
 - i) Tom Loew 847-415-4258

- ii) Adam Kehoe 847-415-4255
 - iii) Asst. ACTs 847-415-4238
- 7) Security
 - a) Deanna Dreyer 847-415-4006
 - b) Radio Phone 847-415-4047
- 8) Bus Service (First Student)
 - a) Office 847-634-0868
 - b) Cell Phone 847-420-0869

Appendix #4

Emergency Procedures for Sever Weather

It is always unsafe for any athletic practice or competition to be held when there is lightning present. In the event there is lightning sighted the following procedure WILL be followed:

- 1) When lightning/thunder is heard/seen all outside activities should be stopped
- 2) All participants should report to a shelter
 - a) Participants in the Stadium should report to the main school building
 - b) Participants in the outer fields should report to the maintenance barn
 - c) Participants at VHAC should report to their cars
- 3) Participants should remain in the shelter for 30 minutes after the LAST thunder/lightning is heard/seen
- 4) At VHAC there is a ThorGuard system
 - a) At the sound of the ThorGuard all participants should report to the nearest shelter
 - b) The ThorGuard will sound three times in succession to signal an "All Clear"
 - c) Coaches may also subscribe to e-mail reports of "Red Alerts" and "All Clears" by requesting this information from Jill Smiley (jsmiley@d125.org)
- 5) The time between seeing a lightning flash and hearing the thunder equals the distance the storm is away from your location.
 - a) Start counting when you see the lightning and stop when you hear the thunder
 - b) 5 seconds = 1 mile away

Appendix #5

Ultrasound Treatment Matrix

Continuous Ultrasound Treatment Times

1 MHz – Deep (Greater than 1 inch)

| Intensity → (watts/cm ²) | 0.5 | 0.75 | 1.0 | 1.25 | 1.50 | 1.75 | 2.0 | 2.5 |
|---|-------|-------|-------|------|-------|-------|-------|------|
| Temp ↓ (Time in mins:sec to treat area 2x sound head) | | | | | | | | |
| Mild (1°C) | 10:05 | 6:45 | 5:05 | 4:00 | 3:20 | 2:55 | 2:30 | 2:00 |
| Moderate (2°C) | N/A | 13:30 | 10:10 | 8:04 | 6:45 | 5:45 | 5:00 | 4:00 |
| Vigorous (3-4°C) | N/A | N/A | N/A | N/A | 13:30 | 11:30 | 10:05 | 8:05 |

3 MHz – Surface (Less than 1 inch)

| Intensity → (watts/cm ²) | 0.5 | 0.75 | 1.0 | 1.25 | 1.50 | 1.75 | 2.0 | 2.5 |
|---|-------|------|------|------|------|------|------|------|
| Temp ↓ (Time in mins/sec to treat area 2x sound head) | | | | | | | | |
| Mild (1°C) | 3:20 | 2:15 | 1:40 | 1:20 | 1:05 | 1:00 | 0:50 | 0:40 |
| Moderate (2°C) | 6:45 | 4:30 | 3:20 | 2:40 | 2:15 | 1:55 | 1:40 | 1:20 |
| Vigorous (3-4°C) | 13:30 | 9:00 | 6:45 | 5:25 | 4:30 | 3:50 | 2:40 | N/A |

Appendix #6

Blood Borne Pathogen Exposure Plan

Protection and precaution should be taken when ever dealing with blood or bodily fluids. Gloves should be worn at all times and soiled gauze, bad-aids, and other soiled material should always be disposed of in a biohazard bag. The following is procedure when dealing with bodily fluids:

- 1) ATC and/or ATS should always wear gloves to protect themselves from blood borne pathogens
 - a) After gloves are put on, the gloves hands should not come into contact with other surfaces that cannot be properly disposed of as they will contaminate the surface
 - b) To remove gloves after use, use one had to pinch the soiled end of other glove and pull off – ball up first glove in the palm of hand and use other first finger to hook under the glove of the second hand – pull second glove (with the first glove inside) completely off, turning it inside out and discard in a biohazard bag
- 2) If there is exposure to blood borne pathogen ATC and/or ATS should immediately irrigate the affected area with soap and water, may also wash out with hydrogen peroxide.
 - a) The affected person should immediately notify their supervisor of the situation
 - b) Supervisor will notify appropriate personnel and make accommodations for the affected person to receive all medical attention needed following the exposure
- 3) Bodily fluids that are spilled on the floor or other cleanable areas should be cleaned immediately after patient is appropriately bandaged
 - a) If help in needed in clean up Sudexo should be called for assistance
 - b) Sudexo will supply the ATR with appropriate cleaning supplies for clean-up of bodily fluids
 - c) All soiled gauze pads, paper towels, towels, etc. should be disposed of in a biohazard container