Illinois Institute of Technology Concussion Management Plan

Purpose: The purpose of the Concussion Management Plan is to improve the prevention, recognition, evaluation and management of concussions in student-athletes and to fulfill the NCAA requirement that each NCAA institution has a protocol in place for the management of concussions.

Concussion Defined:

A concussion is a type of traumatic brain injury that affects the pathophysiological process of the brain, often induced by a blow to the head or body causing biomechanical forces on the brain itself. Several common features that incorporate clinical, pathological, and biomechanical injury constructs that may be utilized in defining the nature of a concussive head injury include:

a. Concussion may be caused by a direct blow to the head, face, neck or elsewhere on the body with an impulsive force transmitted to the head.
b. Concussion typically results in the rapid onset of short-lived impairment of neurological function that resolves spontaneously.
c. Concussion may result in neuropathologic changes, but the acute clinical symptoms largely reflect a functional disturbance rather than a structural injury.
d. Concussion results in a graded set of clinical symptoms that may or may not involve loss of consciousness. Resolution of the clinical and cognitive symptoms typically follows a sequential course; however, it is important to note that in a small percentage of cases, post-concussive symptoms may be prolonged.
e. No abnormality on standard structural neuroimaging studies is seen in concussion.

Illinois Institute of Technology Educational Concussion Policy:

1. Illinois Tech requires that student-athletes will be annually educated on concussions. They will be required to read and review a concussion education form that covers: concussion definition, recognition, signs and symptoms, and injury reporting. They also will be required to review the CDC concussion information webpage (http://www.cdc.gov/concussion/), as well as watch the NCAA video, “Don’t Hide It, Report It, Take Time to Recover” (https://www.youtube.com/watch?v=T3FLRDxbLXg). They will then electronically sign the student-athlete concussion statement acknowledging that:

a. They have read and understand the concussion information provided, which is based off the NCAA Concussion Fact Sheet (Appendix A).
b. They accept the responsibility for reporting their injuries and symptoms to the Illinois Tech Athletic Training Staff, including signs and symptoms of concussions.

c. Upon arriving at Illinois Tech they have the opportunity to clarify any questions they may have regarding concussions.

2. Illinois Tech also requires coaches (head coaches, full-time assistant coaches and graduate assistants) to undergo annual concussion education that includes review of common signs and symptoms of a concussion, the Illinois Tech Management Plan as well as an NCAA video about concussions. All coaches must then read and sign a statement (Appendix B) acknowledging that they:
   a. Have read and understand the NCAA Concussion Fact Sheet.
   b. Will encourage their athletes to report any suspected injuries and illnesses to the Illinois Tech Athletic Training Staff, including signs and symptoms of concussions.
   c. Accept the responsibility for referring any athlete suspected of sustaining a concussion to the Illinois Tech Athletic Training Staff immediately.
   e. Will not re-enter an athlete into practice or competition if they suspect or have knowledge of an athlete with a concussion.

3. Illinois Tech Athletic Training Staff will also review the concussion management plan annually with Illinois Tech Team Physician, and include any new information provided by the NCAA, CDC, or other governing agencies. The Illinois Tech Athletic Training Staff will sign a statement confirming that they have reviewed the concussion policy, have updated the policy to reflect any and all new concussion management information, and that they will manage any and all suspected concussions according to the stated policy (Appendix C).

4. The Head Athletic Trainer, or their designee, will coordinate the distribution, educational session, signing, and collection of the necessary documents for the student-athletes. The documents will be retained in the individual athlete’s medical file in the electronic medical record system, or hard copy, for 7 years after they complete their final athletic season.

5. The Head Athletic Trainer, or their designee, will coordinate the signing of the aforementioned documents on an annual basis for Athletic Training Staff and coaches. The Department of Athletics will keep the signed documents, along with the established Illinois Tech Concussion Policy, on file. A copy of the Illinois Tech Concussion Policy will also be available on the Illinois Tech Athletic Training Webpage.

6. The Head Athletic Trainer will keep the established Illinois Tech Concussion Policy on file and be responsible for posting the policy on the athletics’ website for reference.
7. The Head Athletic Trainer will coordinate an annual meeting each May to review and update the Concussion Policy with the Athletic Training Staff.
8. Any changes to the policy will be effective August 1, of the upcoming academic year.

**Illinois Tech Concussion Management Protocol:**

1. Illinois Tech Athletic Training Staff members, under the supervision of the team physician, will oversee and implement the management and return-to-play process of any ill or injured student-athlete, as he or she deems appropriate. The team physician is the final authority for return-to-play on all concussions and related injuries, regardless of second opinions or other health care provider recommendations.

2. Illinois Tech Athletic Training will keep on file a current and up-to-date concussion management protocol. This protocol will be used to manage every suspected concussion and is outlined in the points below:

   a. Illinois Tech will conduct a one-time preseason baseline assessment for each new student-athlete participating in baseball, basketball (men and women), lacrosse, soccer (men and women), track and field (pole vaulters), and volleyball (men and women). Baseline assessment will include a symptom checklist as well as a computerized neurocognitive baseline test using ImPACT test (Immediate Post-Concussion Assessment and Cognitive Testing) and balance test. These baseline tests will only need to be repeated if: the athlete suffers a concussion and needs to establish a new baseline test, or if the original baseline test was not valid and needs to be repeated (based on standard program parameters). Baseline testing will be conducted prior to the athlete’s first practice for their traditional or non-traditional season and will be stored on ImPACT and secure servers.

   b. When a student-athlete shows or reports any signs, symptoms or behaviors consistent with a concussion, the athlete will be removed from practice or competition by either a member of the coaching staff or Athletic Training Staff. If removed by a coaching staff member, the coach will immediately refer the student-athlete for an evaluation by a member of the Athletic Training Staff. During competition, on-the-field of play injuries will be under the purview of the official and playing rules of the sport. Illinois Tech staff will follow such rules and attend to medical situations as they arise. Visiting sport team members evaluated by the IIT Athletic Training Staff will be managed in the same manner as Illinois Tech student-athletes.
c. If signs or symptoms of a concussion are reported or witnessed by any member of the Illinois Tech Athletics Staff or Athletic Training Staff, that student-athlete will be removed from play immediately and will be evaluated per this protocol.

d. When an athlete shows any signs or symptoms of a concussion
   i. The athlete will be medically evaluated on site using standard emergency management principles and special attention will be paid to rule out a cervical spine injury.
   ii. This evaluation should be conducted by a member of the Illinois Tech Athletic Training Staff or team physician. In the event these staff members are not immediately available, the athlete should be removed from play and a referral to the Athletic Training Staff or emergency medical personnel should be made.
   iii. Symptoms that indicate the need for activation of emergency medical services include, but are not limited to: prolonged loss of consciousness, focal neurologic deficits and/or worsening concussive symptoms, or suspected c-spine injury.
   iv. Once the first aid issues are addressed and other severe injuries are ruled out, then an assessment of the concussion should occur using the SCAT5, standard concussion evaluation, and balance testing.
   v. A player diagnosed with a concussion should be monitored over the initial few hours following the injury to identify potential deteriorating conditions.

e. Ideally, an assessment of symptoms will be performed at the time of the injury and then serially thereafter (i.e. 5 min post-injury, 20 min, 24 hours, 72 hours, and at other intervals as requested by the team physician until the symptoms have subsided).

f. The presence or absence of symptoms, SCAT5 assessment, balance test, and overall concussion evaluation will dictate the inclusion of additional neurocognitive testing, balance testing or further medical imaging/evaluation. Once the concussion assessment has been completed, the injury will be reported to the team physician. She will review the assessment information and work with the Athletic Training Staff to determine severity, recommend further treatment and explain return-to-play criteria based on the evaluative findings.

g. A player diagnosed with a concussion will not, under any circumstances, be allowed to return-to-play the same day of injury.

h. The cornerstone of concussion management is physical and cognitive rest until symptoms resolve. Following a concussion diagnosis, a student-athlete will be removed from play and instructed to rest and recover. They will be provided with home care instructions to ensure they understand the Athletic Training Staff’s recommendations and signs and symptoms of a more serious or worsening injury (Appendix D).
i. If, during the course of the evaluation or management of a concussion, the student-athlete reports difficulty in the classroom because of their injury, they will be referred to the team physician for further evaluation. Prior to meeting with the team physician, the athlete will be given an academic letter (Appendix F). The academic accommodations individual will determine the need for any immediate academic modifications necessary as a pre-cursor to academic accommodations recommended by the sports medicine staff, or other overseeing physician. Based on that evaluation, recommendations for continued academic accommodations may be made using the ImPACT Academic Accommodations form or letter from the head athletic trainer or team physician, or other overseeing physician. The student-athlete in conjunction with the academic advisors will be responsible for the distribution of this letter and the recommendations for accommodations to their professors.

j. If after two to three weeks of physical and academic modification, the SA is still unable to fully participate in their coursework, further discussion would take place regarding the integrity of the academic expectations of the class. At this point, if the student-athlete is still having significant issues, the SA would need to meet with their advisor, to consider the following:

   i. Dropping or withdrawing from a course/courses
   ii. A medical leave of absence

k. Most concussions resolve without issue in less than three weeks. There are some injuries that can take longer to resolve or cause long-term cognitive deficits. These secondary issues are rare, but can happen. If a SA suffers a concussion and does not show marked improvement in three weeks, they would be referred to a neuropsychologist for further evaluation and recommendations. There are instances when a concussion could result in a long-term cognitive disability. If a SA suffers a concussion of this nature, they would be evaluated and supporting documentation provided, this would formally shift the injury to a disability.

l. If at any point during this process the SA has been allowed back to physical activity, then it will be assumed that cognitive activity is within normal limits and that academic modifications are no longer warranted.

m. In order to establish the injury severity and help to establish the appropriate treatment plan, a post-injury ImPACT test will be conducted forty-eight hours post initial injury. These results will be reviewed by the Athletic Training Staff, using the athlete’s baseline test for comparison. Standard guidelines will be followed per ImPACT for determining a significantly altered post-injury test. If the student-athlete does not have a baseline from which to use in case of injury, the Athletic Training Staff will use normative data provided through the ImPACT system for which to determine the outcome.
i. Note: If an athlete's symptoms resolve before this 48-hour mark, they will take the ImPACT test when they subjectively report feeling 100% normal. If those results are within normal limits of their baseline, they will begin a stepwise return-to-play protocol.

ii. After the initial post-injury test, the athlete will remain out of any athletic participation and will be instructed to rest. Once the athlete reports back to the Athletic Training Staff noting that they are subjectively feeling 100% back to normal and symptom free, post-injury ImPACT and balance tests will be performed. If both scores are within normal limits of the baseline test, the athlete will be allowed to start the stepwise return-to-play progression.

iii. The athlete will only progress to the next stage of this progression if symptoms are not present in the current stage of exertion. Once the student-athlete has completed the return-to-play exertional progression, they will take a final post-injury ImPACT test and final post-injury balance test. If these scores are within normal limits of their baseline test and they are not reporting any symptoms, they will be allowed to return-to-play. If the final post-injury tests are not within normal limits, the athlete will maintain exertion at the current level and will be tested 24 hours later. All student-athletes will need to be cleared by the team physician or his/her designee prior to returning to full participation.

n. If a second head injury occurs within the same season, the Athletic Training Staff, in conjunction with the team physician, reserves the right to alter the aforementioned procedure to allow for a slower and more deliberate return-to-play process to protect the student-athlete from further harm.

o. If a student-athlete enters Illinois Tech with a significant concussion history, the Illinois Tech Athletic Training Staff will have the team physician review their history and determine playing recommendations on a case-by-case basis.

p. If a student-athlete's concussion does not follow a standard recovery timeline or if complications arise during concussion management, the team physician and the Athletic Training Staff reserve the right to manage that student-athlete according to a more or less conservative route, as determined by that athlete's medical presentation.
q. The following 5-Step Stepwise Exertional Return-to-Play Protocol will be used for all concussions:

i. This exertional protocol allows a gradual increase in volume and intensity during the return-to-play process. The athlete is monitored for any concussion-like signs/symptoms during and after each exertional activity.

ii. The following steps are not ALL to be performed on the same day. This exertional progression will typically occur over multiple days with steps 4 and 5 each being performed on separate and subsequent days (example of a RTP protocol):

  o **Exertion Step 1**: 20 minute stationary bike ride (10-14 MPH)
  o **Exertion Step 2**: Interval bike ride: 30 sec sprint (18-20 MPH/10-14 MPH)/30 sec recovery x 10; and bodyweight circuit: Squats/Push Ups/Situps x 20 sec x 3
  o **Exertion Step 3**: 60 yard shuttle run x 10 (40 sec rest); and plyometric workout: 10 yard bounding/10 medicine ball throws/10 vertical jumps x 3; and non-contact, sports-specific drills for approximately 15 minutes
  o **Exertion Step 4**: Limited, controlled return to full-contact practice and monitoring for symptoms
  o **Exertion Step 5**: Full sport participation in a practice

r. Illinois Tech will document the injury, evaluation, continued management and final clearance of the student-athlete with a concussion within the Electronic Medical Database system used to manage all athletic injuries. This documentation along with the ImPACT and balance scores will be kept for seven years.

s. The above mentioned protocol will be monitored using the Concussion Management Checklist (Appendix H).
CONCUSSION
A FACT SHEET FOR STUDENT-ATHLETES

WHAT IS A CONCUSSION?
A concussion is a brain injury that:
• Is caused by a blow to the head or body.
• Can happen even if you do not lose consciousness.

WHAT ARE THE SYMPTOMS OF A CONCUSSION?
You can't see a concussion, but you might notice some of the symptoms right away. Other symptoms can show up hours or days after the injury.
Concussion symptoms include:
• Amnesia.
• Confusion.
• Headache.
• Loss of consciousness.
• Balance problems or dizziness.
• Double or blurry vision.
• Sensitive to light or noise.
• Nausea (feeling that you might vomit).
• Feeling sluggish, foggy or groggy.
• Feeling unusually irritable.
• Concentration or memory problems (forgetting game plays, facts, meeting times).
• Frustration.
Exercising or activities that involve a lot of concentration, such as studying, working on the computer, or playing video games may cause concussion symptoms (such as headache or tiredness) to reappear or get worse.

HOW CAN I PREVENT A CONCUSSION?
Basic steps you can take to protect yourself from concussions:
• Do not initiate contact with your head or helmet. You can still get a concussion if you are wearing a helmet.
• Avoid striking or being hit in the head. Undercutting, tucking, taking off your helmet, stepping on a head, checking an unprotected opponent, and wide to the head all cause concussions.
• Follow your athletics department's rules for safety and the rules of the sport.
• Practice good sportsmanship at all times.
• Practice and perfect the skills of the sport.

WHAT SHOULD I DO IF I THINK I HAVE A CONCUSSION?
Don't hide it. Tell your athletic trainer and coach. Never ignore a blow to the head. Also, tell your athletic trainer and coach if any of your teammates might have a concussion.

Report it. Do not return to participation in a game, practice or other activity with symptoms. The sooner you get checked out, the sooner you may be able to return to play.

Get checked out. Your team physician, another medical professional, or health care professional can tell you if you have had a concussion and when you are cleared to return to play.

A concussion can affect your ability to perform everyday activities, your reaction time, balance, sleep and classroom performance.

Take time to recover. If you have had a concussion, your brain needs time to heal. While your brain is still healing, you are much more likely to have a repeat concussion. In some cases, repeat concussions can cause permanent brain damage, and even death. Serious brain injury can change your whole life.

IT'S BETTER TO MISS ONE GAME THAN THE WHOLE SEASON. WHEN IN DOUBT, GET CHECKED OUT.

For more information and resources, visit www.NCAA.org/Health-Safety and www.CDC.gov/Concussion.

CDC
NCAA

Disclaimer: Tennessee State University is not responsible for the content of this document. The content is the responsibility of the NCAA and the CDC.
Illinois Tech Athletic Department
Coaches Concussion Statement

☐ I have read and understand the Illinois Tech Concussion Management Plan.
☐ I have read and understand the NCAA Concussion Fact Sheet.
☐ I have viewed and understand the NCAA Video, Don’t Hide It, Report It, Take Time to Recover.

After reading the NCAA Concussion fact sheet and reviewing the Illinois Tech Concussion Management Protocol, I am aware of the following information:

________
A concussion is a brain injury which athletes should report to the medical staff.

Initial
A concussion can affect the athlete’s ability to perform everyday activities, and affect reaction time, balance, sleep, and classroom performance. You cannot see a Concussion but you might notice some of the symptoms right away. Other symptoms can show up hours or days after the injury.

Initial
I will not knowingly allow the athlete to return to play in a game or practice if he/she has received a blow to the head or body that results in concussion related symptoms.

Initial
Athletes shall not return to play in a game or practice on the same day that they are suspected of having a concussion.

Initial
If I suspect one of my athletes has a concussion, it's my responsibility to have that athlete see the medical staff.

Initial
I will encourage my athletes to report any suspected injuries and illnesses to the medical staff, including signs and symptoms of concussions.

Initial
Following concussion the brain needs time to heal. Concussed athletes are much more likely to have a repeat concussion if they return to play before their symptoms resolve. In rare cases, repeat concussions can cause permanent brain damage, and even death.

Initial
I am aware that every first-year student-athlete participating on specified IIT teams must be baseline tested prior to participation in sport. These tests allow for comparison of symptoms, neurocognition, and balance if the athlete were to become injured.

Initial
I am aware that athletes diagnosed with a concussion must be cleared by the team physician. Athletes will begin a graduated return to play protocol following full recovery of Neurocognition and balance.

Signature of Coach

Date

Printed name of Coach
Illinois Tech Athletic Department
Athletic Training Concussion Statement

☐ I have read and understand the Illinois Tech Concussion Management Plan.
☐ I have read and understand the NCAA Concussion Fact Sheet.
☐ I agree to treat all suspected concussions according to the Concussion Plan.
☐ I have reviewed the Concussion Management Plan and have updated its contents based on NCAA recommendations.

After reviewing the NCAA recommendations and discussing concussion management with the team physician, I am aware of the following information:

__________ Initial
The NCAA requires that student-athletes complete annual education about the signs and symptoms of concussions.

__________ Initial
Illinois Tech has a protocol in place to manage concussions and that I will strictly adhere to that policy when managing concussions.

__________ Initial
I will not knowingly allow the athlete to return to play in a game or practice if he/she has received a blow to the head or body that results in concussion related symptoms.

__________ Initial
Athletes shall not return to play in a game or practice on the same day that they are suspected of having a concussion.

__________ Initial
If I determine a student-athlete has a concussion, it is my responsibility to have that athlete evaluated by the team physician.

__________ Initial
I will encourage all athletics staff, specifically coaches to report any suspected athlete injuries and illnesses to the medical staff, including signs and symptoms of concussions.

__________ Initial
I am responsible for conducting baseline testing for first-year student-athletes participating on specified IIT teams prior to participation in sport. These tests allow for comparison of symptoms, neurocognition, and balance if the athlete were to become injured.

__________ Initial
That athletes diagnosed with a concussion must be cleared by the team physician.

__________ Initial
Athletes will begin a graduated return to play protocol following full recovery of neurocognition and balance.

Signature of Health Care Provider _______________________________ Date ___________________________
Printed name of Health Care Provider
Illinois Tech Athletic Department  
Directions for Home Care of Concussions

Name ___________________________ Date ___________________________

You have had a head injury or concussion and need to be watched closely for the next 24-48 hours.

**Special Recommendations:**
- Watch for any of the following problems:
  - Worsening headache
  - Stumbling/loss of balance
  - Vomiting
  - Weakness in one arm/leg
  - Decreased level of consciousness
  - Blurred Vision
  - Dilated Pupils
  - Increased irritability
  - Increased Confusion

If any of these problems develop, call your athletic trainer immediately or call 9-1-1.

<table>
<thead>
<tr>
<th>It is Ok to:</th>
<th>There is no need to:</th>
<th>Do Not:</th>
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<tbody>
<tr>
<td>Use an ice pack to head/neck for comfort</td>
<td>Check eyes with a light</td>
<td>Drink Alcohol</td>
</tr>
<tr>
<td>Eat a light meal</td>
<td>Wake up every hour</td>
<td>Exert yourself physically or mentally</td>
</tr>
<tr>
<td>Go to sleep</td>
<td>Stay in bed</td>
<td>Drive a car</td>
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Special Recommendations: ____________________________

**WATCH FOR ANY OF THE FOLLOWING PROBLEMS**

- Worsening headache
- Vomiting
- Decreased level of consciousness
- Dilated Pupils
- Increased Confusion
- Stumbling/loss of balance
- Weakness in one arm/leg
- Blurred Vision
- Increased irritability

If any of these problems develop, call your athletic trainer immediately or call 9-1-1.

Athletic Trainer ___________________________ Phone ___________________________

You need to be seen for a follow-up examination at ________ AM/PM at: ___________________________

Recommendations provided to ______________________________________________________

Recommendation provided by ____________________________________________________
Illinois Tech Athletic Department
Concussion Management Checklist

Athlete Name: ________________________________

Sport: ______________________________________

Date of Injury: ________________________________

Date of Evaluation: ____________________________

Concussion History: ____________________________

<table>
<thead>
<tr>
<th>Athlete Actions</th>
<th>Medical Actions</th>
</tr>
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<tbody>
<tr>
<td>☐ Baseline Symptom Inventory</td>
<td>☐ Daily symptom monitoring</td>
</tr>
<tr>
<td>☐ Baseline ImPACT Test</td>
<td>☐ Student-Athlete reports 100%</td>
</tr>
<tr>
<td>☐ Baseline Balance Test</td>
<td>☐ #2 Post-Injury ImPACT Test</td>
</tr>
<tr>
<td>☐ SCAT5 Assessment</td>
<td>☐ #2 Post-Injury Balance Test</td>
</tr>
<tr>
<td>☐ Concussion Assessment</td>
<td>☐ Academic Accommodations</td>
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<tr>
<td>☐ Immediate Symptom Monitoring</td>
<td>☐ Successful Graduated Return-To-Play Progression</td>
</tr>
<tr>
<td>☐ Post-Injury Balance Test</td>
<td>☐ #3 Post-Injury ImPACT Test</td>
</tr>
<tr>
<td>☐ Removal from play and home care Instructions</td>
<td>☐ #3 Post-Injury Balance Test</td>
</tr>
<tr>
<td>☐ 24-hour post-injury symptom inventory</td>
<td>☐ Clearance from team physician for RTP</td>
</tr>
<tr>
<td>☐ 48-hour post-injury symptoms inventory</td>
<td>☐ Other:-------------------______________________________________________________</td>
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<tr>
<td>☐ Post-injury/Pre-return ImPACT Test</td>
<td></td>
</tr>
<tr>
<td>☐ Contact with team physician regarding injury and assessments</td>
<td></td>
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<tr>
<td>☐ Evaluation by team physician</td>
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__________________________________________________________________________

__________________________________________________________________________
Illinois Tech  
Letter for Academic Considerations

To Whom it May Concern:

The Illinois Tech Athletic Training staff has assessed ____________________________ for a possible concussive injury sustained on ________________. The athlete has been found to be exhibiting these signs/symptoms commonly associated with concussion:

- [ ] Headache
- [ ] Dizziness
- [ ] Blurred vision
- [ ] Sensitivity to light/noise
- [ ] Feeling slowed down
- [ ] Difficulty concentrating
- [ ] Difficulty remembering
- [ ] Fatigue
- [ ] Confusion
- [ ] Drowsiness/insomnia
- [ ] Anxiety/depression
- [ ] Nervousness/irritability

The athlete’s academic performance may be affected by the injury; therefore reasonable academic modification(s) may be necessary until further evaluation by a physician can be performed.

Additional concerns:__________________________________________________________

__________________________________________________________

The athlete is scheduled for a follow-up assessment on ______ with _____________________.

Please assist this athlete with any academic issues that you identify. Should you have any concerns please contact the Head Athletic Trainer.

__________________________________________________________

Signature (Physician or Athletic Trainer)

__________________________________________________________

Print Name
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