Lake Travis ISD
Guidelines for Sports Concussion Management,
Neurocognitive Testing & Return to Play Protocol

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Hank Carter
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INTRODUCTION

A concussion is a type of traumatic brain injury, or TBI, caused by a bump, blow, or jolt to the head that can change the way your brain normally works. Concussions can also occur from a blow to the body that causes the head to move rapidly back and forth. Even a “ding,” “getting your bell rung,” or what seems to be mild bump or blow to the head can be serious. Concussions can occur in any sport or recreation activity. All coaches, parents, and athletes need to learn concussion signs and symptoms and what to do if a concussion occurs. Each year, U.S. emergency departments treat an estimated 135,000 sports and recreation related TBIs, including concussions, among children ages 5 to 18. Athletes who have ever had a concussion are at increased risk for another concussion. Children and teens are more likely to get a concussion and take longer to recover than adults (source: Centers for Disease Control and Prevention). In order to have a standard method of managing concussions to LTISD athletes, the following guidelines are intended to serve as a written protocol for concussion management.

WHAT IS A CONCUSSION?

Concussion - A concussion is a type of traumatic brain injury (TBI). Concussions are the common result of a blow to the head or body which causes the brain to move rapidly within the skull.

Concussions cause brain function to change which results in an altered mental state (either temporary or prolonged). Physiologic and/or anatomic disruptions of connections between some nerve cells in the brain occur. Symptoms include, but are not limited to, brief loss of consciousness, headache, amnesia, nausea, dizziness, confusion, blurred vision, ringing in the ears, loss of balance, moodiness, poor concentration or mentally slow, lethargy, photosensitivity, sensitivity to noise, and a change in sleeping patterns. These symptoms may be temporary or long lasting.

Also of concern is the risk of repeated concussions and second impact syndrome to young athletes. These two problems can have long lasting, and even fatal effects, on the individual. In order to have a standard method of managing concussions of LTISD athletes, the following guidelines are intended to serve as a written protocol for concussion management.
HISTORY

The following events play a significant role leading up to the development and implementation of the LTISD concussion management and return to play protocol:

1) November 2008: the 3rd International Conference on Concussion in Sport convened in Zurich, Switzerland and published its Consensus Statement on Concussion in Sport
2) April, 2010: the NCAA Executive Committee updated its policy statement regarding concussions
4) June 2011: The Texas’ Legislature’s House Bill 2038, also known as Natasha’s Law, was passed and signed into law. This is a law relating to prevention, treatment, and oversight of concussions affecting public school students’ participation in interscholastic athletics.
5) Summer 2011: Texas Education Code updated Chapter 38, Sub Chapter D regarding concussion management of student-athletes participating in interscholastic sports in Texas.
6) Summer 2011: The University Interscholastic League updated its requirements for concussion management in student-athletes participating in activities under the jurisdiction of the UIL, and published Implementation Guide NFHS Suggested Guidelines for Concussions and Chapter 38, Sub Chapter D of the Texas Education Code

PURPOSE

Lake Travis Independent School District will continue to keep the health, safety and welfare of its student-athletes foremost. In addition, this Protocol complies with HB 2038, the UIL’s concussion management protocol and TEC Section 38.153.

This Concussion Management (CM) and Return To Play Protocol (RTP) is designed to help the LTISD Athletic Department, treat it’s student-athletes who are suspected to have sustained a concussion in a safe, efficient and objective manner. By following this protocol, LTISD will be able to provide efficient treatment to keep the student-athlete’s health primary and safe while also being able to assist the student-athlete to return to competition as quickly as possible following a concussion episode. In addition, this Protocol complies with the UIL’s Implementation Guide for NFHS Suggested Guidelines for Concussions and Chapter 38, Sub Chapter D of the Texas Education Code and HB 2038.
DESCRIPTION

According to this CM & RTP protocol:

A) LTISD Athletic Department will create and implement a Concussion Oversight Team.

“The governing body of each school district and open-enrollment charter school with students enrolled who participate in an interscholastic athletic activity shall appoint or approve a concussion oversight team. Each concussion oversight team shall establish a return-to-play protocol, based on peer reviewed scientific evidence, for a student's return to interscholastic athletics practice or competition following the force or impact believed to have caused a concussion.” (UIL Concussion Management Protocol Implementation Guide)

The members of the LTISD Concussion Oversight Team are made up of the athletic training staff, registered nurses of Lake Travis Independent School District, Dr. Michael Shane Reardon, and Holly Morris-Kuentz.

B) LTISD athletic training staff will:

1) Complete all UIL-required training regarding concussion management.
2) Educate student-athletes about concussions.
3) Educate the coaching staff about the LTISD CM and RTP protocol and the coaches’ role within the protocol.
4) Offer baseline ImPACT™ testing to student-athletes.
5) Facilitate mandatory ImPACT™ Post Injury Test to concussed athletes.
6) Maintain documentation of the incident, evaluation, continued management and clearance of student-athletes who have suffered a concussion.
7) Maintain documentation of the completed UIL Concussion Management Protocol Return to Play Form. This form must be completed and signed by the appropriate people prior to a student-athlete’s return to play following a concussion.
8) Communicate with LTISD coaches as to the medical clearance of student-athletes who have suffered concussions.

C) The coaching staff of LTISD will:

1) Complete all UIL-required training regarding concussions.
2) Educate student-athletes about concussions.
3) Remove a student-athlete from a practice or competition if they show any signs, symptoms, or behaviors consistent with a concussion, and refer them for evaluation by an appropriate, licensed health care professional (physician, athletic trainer, nurse practitioner, etc.).
4) Follow all participation restrictions that are placed on a student-athlete by an appropriate, licensed healthcare professional that has evaluated the student-athlete.
D) A student-athlete must be removed from a practice or competition immediately if struck with an object above the neck region during the practice or competition:

E) A student-athlete must be removed from a practice or competition immediately if one of the following persons believes the student might have sustained a concussion during the practice or competition:
   - coach
   - physician
   - licensed health care professional
   - parent, guardian or another person with legal authority to make medical decisions for the student.

F) If a student-athlete shows any signs, symptoms or behaviors consistent with a concussion:
   1) The student-athlete shall be immediately removed from game/practice.
   2) The student-athlete shall be evaluated by an appropriate, licensed health care professional as soon as it is practical to do so (physician, athletic trainer, nurse practitioner, etc.).
   3) Inform the student-athlete’s parent or guardian about the possible concussion and give them:
      - Educational material on concussions, including instructions for monitoring the student-athlete by someone who is able to stay with them and follow the instructions.
      - Return to Play Guidelines
   4) The student-athlete shall not be allowed to return to participation that day regardless of how quickly the signs or symptoms of the concussion resolve, and shall be kept from activity until a physician indicates they are symptom-free and gives clearance to return to activity as described below.
   5) A coach of an interscholastic athletics team may not authorize a student’s return to play.

EVOLUTION & FUTURE CONSIDERATIONS

This protocol as well as the issue of sports concussion management should be continually updated following established guidelines and new standards of care as they become available.
Parental Information

What is a concussion?
A concussion is an injury to the brain. It is caused by a bump, blow, or jolt to either the head or the body that causes the brain to move rapidly within the skull. The resulting injury to the brain changes how the brain functions in a normal manner. The signs and symptoms of a concussion can show up immediately after the injury or may not appear for hours or days after the injury. Concussions can have serious long-term health effects, and even a seemingly mild injury can be serious. A major concern with any concussion is returning to play too soon. Having a second concussion before healing can take place from the initial or previous concussion can lead to serious and potentially fatal health conditions.

What are the symptoms of a concussion?
Signs and symptoms of a concussion are typically noticed right after the injury, but some might not be recognized until days after the injury. Common symptoms include: headache, dizziness, amnesia, fatigue, confusion, mood changes, depression, poor vision, sensitivity to light or noise, lethargy, poor attention or concentration, sleep disturbances, and aggression. The individual may or may not have lost consciousness.

What should be done if a concussion is suspected?
1. Immediately remove student from practice or game
2. Seek medical attention right away
3. Do not allow the student to return to play until proper medical clearance and return to play guidelines have been followed. The permission for return to play will come from the appropriate health care professional or professionals.

What should the athlete know about playing with a concussion?
Teach athletes it’s not smart to play with a concussion. Rest is the key after a concussion. Sometimes athletes, parents, and other school or league officials wrongly believe that it shows strength and courage to play injured. Discourage others from pressuring injured athletes to play. Don’t let your athlete convince you that they’re “just fine.”

What are the risks of returning to activity too soon after sustaining a concussion?
Prevent long-term problems. If an athlete has a concussion, their brain needs time to heal. Don’t let them return to play the day of the injury and until a health care professional, experienced in evaluating for concussion, says they are symptom-free and it’s OK to return to play. A repeat concussion that occurs before the brain recovers from the first—usually within a short time period (hours, days, weeks)—can slow recovery or increase the chances for long-term problems.
Parental Information

What can happen if my child keeps on playing with a concussion?
Athletes with the signs and symptoms of concussion should be removed from play immediately. Continuing to play with the signs and symptoms of a concussion leaves the young athlete especially vulnerable to greater injury. There is an increased risk of significant damage from a concussion for a period of time after that concussion occurs, particularly if the athlete suffers another concussion before completely recovering from the first one. This can lead to prolonged recovery, or even to severe brain swelling (second impact syndrome) with devastating and even fatal consequences. It is well known that adolescent or teenage athletes will often under report symptoms of injuries. And concussions are no different. As a result, education of administrators, coaches, parents and students is the key for student-athlete’s safety.

Liability Provisions
The student and the student’s parent or guardian or another person with legal authority to make medical decisions for the student understands this policy does not:

1. Waive any immunity from liability of a school district or open-enrollment charter school or of district of charter school officers or employees;
2. Create any liability for a cause of action against a school district or open-enrollment charter school or against district or charter school officers or employees;
3. Waive any immunity from liability under Section 74.151, Civil Practice and Remedies Code;
4. Create any liability for a member of a concussion oversight team arising from the injury or death of a student participating in an interscholastic athletics practice of competition, based only on service on the concussion oversight team.
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Name: ____________________    Date of Injury: ____________________
Sport: ____________________    Date: ____________________
Grade/ Team: ____________________   Time: ____________________

How do you feel? You should score yourself on the following symptoms, based on how you feel now.

None: 0    Mild: 1-2    Moderate: 3-4    Severe: 5-6

1. Headache     0  1  2  3  4  5  6
2. “Pressure in head”     0  1  2  3  4  5  6
3. Neck Pain     0  1  2  3  4  5  6
4. Nausea or vomiting     0  1  2  3  4  5  6
5. Dizziness     0  1  2  3  4  5  6
6. Blurred vision     0  1  2  3  4  5  6
7. Balance problems     0  1  2  3  4  5  6
8. Sensitivity to light     0  1  2  3  4  5  6
9. Sensitivity to noise     0  1  2  3  4  5  6
10. Feeling slowed down     0  1  2  3  4  5  6
11. Feeling like “in a fog”     0  1  2  3  4  5  6
12. “Don’t feel right”     0  1  2  3  4  5  6
13. Difficulty concentrating     0  1  2  3  4  5  6
14. Difficulty remembering     0  1  2  3  4  5  6
15. Fatigue or low energy     0  1  2  3  4  5  6
16. Confusion     0  1  2  3  4  5  6
17. Drowsiness     0  1  2  3  4  5  6
18. Trouble falling asleep     0  1  2  3  4  5  6
19. More emotional     0  1  2  3  4  5  6
20. Irritable     0  1  2  3  4  5  6
21. Sadness     0  1  2  3  4  5  6
22. Nervous or Anxious     0  1  2  3  4  5  6

Do symptoms get worse with physical activity?  Y  N
Do symptoms get worse with mental activity?  Y  N

Total Number of Symptoms: ____________________
Symptom Severity Score: ____________________
IMMEDIATE OR ON-FIELD ASSESSMENT

The following elements should be assessed for all athletes who are suspected of having a concussion prior to proceeding to the neurocognitive assessment and ideally should be done on-field after the first first aid / emergency care priorities are completed.

If any of the “Red Flags” or observable signs are noted after a direct or indirect blow to the head, the athlete should be immediately and safely removed from participation and evaluated by a physician or licensed healthcare professional.

Consideration of transportation to a medical facility should be at the discretion of the physician or licensed healthcare professional.

The GCS is an important as a standard measure for all patients and can be done serially if necessary in the event of deterioration in conscious state. The cervical spine exam is a critical step of the immediate assessment, however, it does not need to be done serially.

STEP 1: RED FLAGS

RED FLAGS:
• Neck pain or tenderness
• Double vision
• Weakness or tingling/burning in arms or legs
• Severe or increasing headache
• Seizure or convulsion
• Loss of consciousness
• Deteriorating conscious state
• Vomiting
• Increasingly restless, agitated or combative

STEP 2: OBSERVABLE SIGNS

Witnessed ☐ Observed on Video ☐
Lying motionless on the playing surface Y N
Balance / gait difficulties / motor incoordination: stumbling, slow / laboured movements Y N
Disorientation or confusion, or an inability to respond appropriately to questions Y N
Blank or vacant look Y N
Facial injury after head trauma Y N

STEP 3: EXAMINATION

GLASGOW COMA SCALE (GCS)²

Time of assessment
Date of assessment

Best eye response (E)
No eye opening 1 1 1
Eye opening in response to pain 2 2 2
Eye opening to speech 3 3 3
Eyes opening spontaneously 4 4 4

Best verbal response (V)
No verbal response 1 1 1

Incomprehensible sounds 2 2 2
Inappropriate words 3 3 3
Confused 4 4 4
Oriented 5 5 5

Best motor response (M)
No motor response 1 1 1
Extension to pain 1 1 1
Abnormal flexion to pain 3 3 3
Flexion / Withdrawal to pain 4 4 4
Localizes to pain 5 5 5
Obeys commands 6 6 6

Glasgow Coma score (E + V + M)

CERVICAL SPINE ASSESSMENT

Does the athlete report that their neck is pain free at rest? Y N
If there is NO neck pain at rest, does the athlete have a full range of ACTIVE pain free movement? Y N

Is the limb strength and sensation normal? Y N

In a patient who is not lucid or fully conscious, a cervical spine injury should be assumed until proven otherwise.

OFFICE OR OFF-FIELD ASSESSMENT

STEP 1: ATHLETE BACKGROUND

Please note that the neurocognitive assessment should be done in a distraction-free environment with the athlete in a resting state.

Sport / team / school: __________________________
Date / time of injury: __________________________
Years of education completed: __________________
Age: __________________
Gender: M / F / Other
Dominant hand: left / neither / right
How many diagnosed concussions has the athlete had in the past?: __________________________
When was the most recent concussion?: __________________________
How long was the recovery (time to being cleared to play) from the most recent concussion?: __________________________ (days)

Has the athlete ever been:
Hospitalized for a head injury? Yes No
Diagnosed / treated for headache disorder or migraines? Yes No
Diagnosed with a learning disability / dyslexia? Yes No
Diagnosed with ADD / ADHD? Yes No
Diagnosed with depression, anxiety or other psychiatric disorder? Yes No

Current medications? If yes, please list: __________________________

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STEP 2: SYMPTOM EVALUATION

The athlete should be given the symptom form and asked to read this instruction paragraph out loud then complete the symptom scale. For the baseline assessment, the athlete should rate his/her symptoms based on how he/she typically feels and for the post-injury assessment the athlete should rate their symptoms at this point in time.

To be done in a resting state
Please Check: □ Baseline □ Post-Injury

Child Report

Name: ____________________________
DOB: ____________________________
Address: _________________________
ID number: _______________________
Examiner: ________________________
Date: ____________________________

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Not at all/ Never</th>
<th>A little/ Rarely</th>
<th>Somewhat/ Sometimes</th>
<th>A lot/ Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have headaches</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I feel dizzy</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I feel like the room is spinning</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I feel I’m going to faint</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Things are blurry when I look at them</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I see double</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I feel sick to my stomach</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>My neck hurts</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I get tired a lot</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I get tired easily</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I have trouble paying attention</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I get distracted easily</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I have a hard time concentrating</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I have problems remembering what people tell me</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I have problems following directions</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I daydream too much</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I get confused</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I forget things</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I have problems finishing things</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I have trouble figuring things out</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>It’s hard for me to learn new things</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Total number of symptoms:</td>
<td></td>
<td></td>
<td>of 21</td>
<td></td>
</tr>
<tr>
<td>Symptom severity score:</td>
<td></td>
<td></td>
<td>of 63</td>
<td></td>
</tr>
<tr>
<td>Do the symptoms get worse with physical activity?</td>
<td>Y</td>
<td>N</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do the symptoms get worse with trying to think?</td>
<td>Y</td>
<td>N</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Overall rating for child to answer: ____________________________

Parent Report

The child:

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Not at all/ Never</th>
<th>A little/ Rarely</th>
<th>Somewhat/ Sometimes</th>
<th>A lot/ Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>has headaches</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>feels dizzy</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>has a feeling that the room is spinning</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>feels faint</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>has blurred vision</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>has double vision</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>experiences nausea</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>has a sore neck</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>gets tired a lot</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>gets tired easily</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>has trouble sustaining attention</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>is easily distracted</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>has difficulty concentrating</td>
<td>0</td>
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<td>2</td>
<td>3</td>
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<td>has problems remembering what he/she is told</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>has difficulty following directions</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>tends to daydream</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>gets confused</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>is forgetful</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>has difficulty completing tasks</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>has poor problem solving skills</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>has problems learning</td>
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<td>Total number of symptoms:</td>
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<tr>
<td>Symptom severity score:</td>
<td></td>
<td></td>
<td>of 63</td>
<td></td>
</tr>
<tr>
<td>Do the symptoms get worse with physical activity?</td>
<td>Y</td>
<td>N</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do the symptoms get worse with mental activity?</td>
<td>Y</td>
<td>N</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Overall rating for parent/teacher/coach/carer to answer:

On a scale of 0 to 100% (where 100% is normal), how would you rate the child now?

If not 100%, in what way does the child seem different?
**STEP 3: COGNITIVE SCREENING**

*Standardized Assessment of Concussion - Child Version (SAC-C)*

### IMMEDIATE MEMORY

The Immediate Memory component can be completed using the traditional 5-word per trial list or optionally using 10-words per trial to minimise any ceiling effect. All 3 trials must be administered irrespective of the number correct on the first trial. Administer at the rate of one word per second.

Please choose EITHER the 5 or 10 word list groups and circle the specific word list chosen for this test.

I am going to test your memory. I will read you a list of words and when I am done, repeat back as many words as you can remember, in any order. For Trials 2 & 3, I am going to repeat the same list again. Repeat back as many words as you can remember in any order, even if you said the word before.

<table>
<thead>
<tr>
<th>List</th>
<th>Alternate 5 word lists</th>
<th>Score (of 5)</th>
<th>Trial 1</th>
<th>Trial 2</th>
<th>Trial 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Finger Penny Blanket Lemon Insect</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Candle Paper Sugar Sandwich Wagon</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Baby Monkey Perfume Sunset Iron</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Elbow Apple Carpet Saddle Bubble</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Jacket Arrow Pepper Cotton Movie</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Dollar Honey Mirror Saddle Anchor</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Immediate Memory Score**: of 15

**Time that last trial was completed**

<table>
<thead>
<tr>
<th>List</th>
<th>Alternate 10 word lists</th>
<th>Score (of 10)</th>
<th>Trial 1</th>
<th>Trial 2</th>
<th>Trial 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>Finger Penny Blanket Lemon Insect</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Candle Paper Sugar Sandwich Wagon</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>Baby Monkey Perfume Sunset Iron</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Elbow Apple Carpet Saddle Bubble</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>Jacket Arrow Pepper Cotton Movie</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dollar Honey Mirror Saddle Anchor</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Immediate Memory Score**: of 30

**Time that last trial was completed**

### CONCENTRATION

#### DIGITS BACKWARDS

Please circle the Digit list chosen (A, B, C, D, E, F). Administer at the rate of one digit per second reading DOWN the selected column.

I am going to read a string of numbers and when I am done, you repeat them back to me in reverse order of how I read them to you. For example, if I say 7-1-9, you would say 9-1-7.

<table>
<thead>
<tr>
<th>Concentration Number Lists (circle one)</th>
<th>List A</th>
<th>List B</th>
<th>List C</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-2</td>
<td>4-1</td>
<td>4-9</td>
<td>Y N 0</td>
</tr>
<tr>
<td>4-1</td>
<td>9-4</td>
<td>6-2</td>
<td>Y N 1</td>
</tr>
<tr>
<td>4-9-3</td>
<td>5-2-6</td>
<td>1-4-2</td>
<td>Y N 0</td>
</tr>
<tr>
<td>6-2-9</td>
<td>4-1-5</td>
<td>6-5-8</td>
<td>Y N 1</td>
</tr>
<tr>
<td>3-8-1-4</td>
<td>1-7-9-5</td>
<td>6-8-3-1</td>
<td>Y N 0</td>
</tr>
<tr>
<td>3-2-7-9</td>
<td>4-9-6-8</td>
<td>3-4-8-1</td>
<td>Y N 1</td>
</tr>
<tr>
<td>6-2-9-7-1</td>
<td>4-8-5-2-7</td>
<td>4-9-1-5-3</td>
<td>Y N 0</td>
</tr>
<tr>
<td>1-5-2-8-6</td>
<td>6-1-8-4-3</td>
<td>6-8-2-5-1</td>
<td>Y N 1</td>
</tr>
<tr>
<td>7-1-8-4-6-2</td>
<td>8-3-1-9-6-4</td>
<td>3-7-6-5-1-9</td>
<td>Y N 0</td>
</tr>
<tr>
<td>5-3-9-1-4-8</td>
<td>7-2-4-8-5-6</td>
<td>9-2-6-5-1-4</td>
<td>Y N 1</td>
</tr>
</tbody>
</table>

### DAYS IN REVERSE ORDER

Now tell me the days of the week in reverse order. Start with the last day and go backward. So you'll say Sunday, Saturday. Go ahead.

Sunday - Saturday - Friday - Thursday - Wednesday - Tuesday - Monday 0 1

**Days Score**: of 1

**Concentration Total Score (Digits + Days)**: of 6

---

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**STEP 4: NEUROLOGICAL SCREEN**

See the instruction sheet (page 7) for details of test administration and scoring of the tests.

<table>
<thead>
<tr>
<th>Question</th>
<th>Y</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can the patient read aloud (e.g. symptom checklist) and follow instructions without difficulty?</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Does the patient have a full range of pain-free PASSIVE cervical spine movement?</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Without moving their head or neck, can the patient look side-to-side and up-and-down without double vision?</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Can the patient perform the finger nose coordination test normally?</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Can the patient perform tandem gait normally?</td>
<td>Y</td>
<td>N</td>
</tr>
</tbody>
</table>

**BALANCE EXAMINATION**

Modified Balance Error Scoring System (BESS) testing

<table>
<thead>
<tr>
<th>Condition</th>
<th>Errors</th>
<th>of 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Double leg stance</td>
<td>□</td>
<td>of 10</td>
</tr>
<tr>
<td>Single leg stance (non-dominant foot, 10-12 y/o only)</td>
<td>□</td>
<td>of 10</td>
</tr>
<tr>
<td>Tandem stance (non-dominant foot at back)</td>
<td>□</td>
<td>of 10</td>
</tr>
<tr>
<td><strong>Total Errors</strong></td>
<td>□</td>
<td>of 20</td>
</tr>
<tr>
<td><strong>5-9 y/o</strong></td>
<td>□</td>
<td>of 30</td>
</tr>
<tr>
<td><strong>10-12 y/o</strong></td>
<td>□</td>
<td>of 30</td>
</tr>
</tbody>
</table>

**STEP 5: DELAYED RECALL:**

The delayed recall should be performed after 5 minutes have elapsed since the end of the Immediate Recall section. Score 1 pt. for each correct response.

Do you remember that list of words I read a few times earlier? Tell me as many words from the list as you can remember in any order.

<table>
<thead>
<tr>
<th>Time Started</th>
<th>□</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total number of words recalled accurately:</strong></td>
<td>of 5</td>
</tr>
</tbody>
</table>

**STEP 6: DECISION**

If the athlete is known to you prior to their injury, are they different from their usual self?

<table>
<thead>
<tr>
<th>Answer</th>
<th>Yes</th>
<th>No</th>
<th>Unsure</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date and time of injury:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Concussion Diagnosed?

<table>
<thead>
<tr>
<th>Answer</th>
<th>Yes</th>
<th>No</th>
<th>Unsure</th>
<th>Not Applicable</th>
</tr>
</thead>
</table>
| If re-testing, has the athlete improved?
| Answer | Yes | No | Unsure | Not Applicable |
| Date and time of injury: |        |     |        |               |

I am a physician or licensed healthcare professional and I have personally administered or supervised the administration of this Child SCAT5.

Signature: ____________________________

Name: _______________________________

Title: ______________________________

Registration number (if applicable): _____________________

Date: _______________________________
Lake Travis ISD has developed a protocol for managing concussions. This policy includes a multidiscipline approach involving athletic trainer clearance, physician referral and clearance, and successful completion of activity progressions related to their sport. The following is an outline of this procedure. The injured athlete must complete and successfully pass all of these tests in order to return to sport activity after having a concussion.

I. All athletes who sustain head injuries are required to be evaluated by their primary care physician. They must have a normal physical and neurological exam prior to being permitted to progress to activity. This includes athletes who were initially referred to an emergency department.

II. The student will be monitored daily at school by the athletic trainer and/or school nurse. His/her teachers will be notified of their injury and what to expect. Accommodations may need to be given according to physician recommendations and observations.

III. The student must be asymptomatic at rest and exertion.

IV. Once cleared to begin activity, the student will start a progressive step-by-step procedure outlined in the Prague statement. The progressions will advance at the rate of one step per day.

V. Upon completion of the return to play protocol, he/she may return to their sport activity with no restrictions, with a DOCTORS CLEARANCE.

ImPACT Baseline on file: Y  N
Successful performance on ImPact Post Injury Test (comparing to the national norms)
Date:______________

Name/Number of Parent Called: _________________________________________________________

Evaluating Athletic Trainer/ Supervising Coach: ____________________________ Date: _____________

Last date with symptoms: _______________ Concussion Checklist Completion Date: _______________

Phase 0 – Asymptomatic for 7 days - Date: ________

Name of Physician _____________________________________ Date of Visit: _______________

Cleared to return to activities: Yes: ☐ No: ☐ Reasons: ______________________________________

Restrictions: __________________________________________________________________________

Phase 1 – Stationary Bike - Date: _______________
Phase 2 – Treadmill/ Training Drills - Date: ___________
Phase 3 – Practice w/ No Contact & Weights _______
  FB – Helmet, Shoulder Pads, Shorts, Girdle
Phase 4 – Full Athletic Practice - Date: ___________
Phase 5 – Return To Play

Parent Signature ________________________________
Doctors Signature_______________________________

By signing this form, I (parent/guardian/ person with legal authority) grant permission and understand the risks and dangers related with returning to play too soon after a concussion. Furthermore, in the event that my son/daughter is diagnosed with a concussion, I give my consent for my son/daughter to participate in and comply with the Lake Travis ISD return to play protocol.

Lake Travis ISD. ● 3324 RR 620 South ● Austin, TX  78738
REFERENCES

3. www.Impacttest.com
4. www.healthsystem.virgina.edu/internet/neurogram
5. www.cdc.org
6. www.brainline.org
7. www.momsteam.com/healthsafety/concussion

UPDATED: 2/10/2021