### **Concussions at Marianapolis**

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# Topics

- What is a concussion?
- What to look for...
- Evaluation
- Recovery and Progressions
- Day in the life of a concussed student
- Prevention

### What is a Concussion

• It is a Traumatic Brain Injury.

### What is a TBI

• A TBI is caused by a biomechanical blow, or jolt to the head or body the causes the head and brain to move rapidly back and forth.

# Causes



- Hit to the head
- Falling on the ground
- Car accident
- Getting elbowed
- Walking into a door
- Falling out of bed
- Getting hit with something
- Walking into a sign
- Athletics

# What to look for:

#### Signs

- Appears dazed or stunned
- Is confused about assignment or position
- Forgets sports plays
- Is unsure of game, score, or opponent
- Moves clumsily
- Answers questions slowly
- Looses consciousness (even briefly)
- Shows behavior or personality changes
- Can't recall events prior to hit or fall
- Can't recall events after hit or fall

#### **Symptoms**

- Headache or "pressure" in head
- Nausea or vomiting
- Balance problems or dizziness
- Double or blurry vision
- Sensitivity to light
- Sensitivity to noise
- Feeling sluggish, hazy, foggy, or groggy
- Concentration or memory problems
- Confusion
- Does not "feel right"

# Red Flags

• What does that mean?



- Pupil issues
- Headache that is unbearable
- Weakness or numbness
- Decrease in coordination
- Vomiting
- Slurred speech
- LOC

### Evaluation

# First Responder

### **Simple Questions**

- Where are you?
- Who am I?
- Where are we?
- Score?
- What happened?
- How do you feel?

### **Simple Observation**

- Disorientation
- Eyes look weird
- Off balance
- Don't look like themselves

# Medical Evaluation Tools

- Memory
- Cognition
- Balance
- SCAT 3
- Cranial nerve assessment
- CCAT (Braincheck)

# CCAT (Braincheck)

What is a baseline?

- A test that is done before an injury occurs that is used as a comparison after recovery from an injury.
   Braincheck
- Similar to a computerized game.
- Computerized test that records concussion symptoms and evaluates reaction time, memory, and recognition.

# This is just one of many tools that are used to evaluate concussions

# **Recovery and Progressions**

### Return to Learn Grid

Academic Concussion Level	Academic Actions	Academic Modifications	What to watch for
5 Out of School	-No school work is to be completed -All communications should be based on recovery opposed to when assignments are due		- Red flags
4       - No assessments are to be completed         Half Days with       - No homework         modifications       - No assessments are to be completed         3       - No assessments are to be completed         Full Days with       - Limited homework		<ul> <li>Frequent rest breaks</li> <li>Reduction of coursework and assignments</li> <li>Note takers or recording of lectures</li> <li>Sunglasses</li> <li>Moving classroom seat</li> <li>No Ipad or computer work</li> <li>Reformat assignments</li> <li>Extra time for assignments</li> <li>Ear plugs</li> <li>Removal from specific classrooms</li> <li>Written instructions for assignments</li> </ul>	<ul> <li>Increase in symptoms with school work</li> <li>Decreased attention span</li> <li>Difficulty remembering or learning new material</li> <li>Inability to cope with stress</li> <li>fatigue</li> <li>Visible pain or discomfort</li> <li>inappropriate behavior</li> <li>Emotional changes</li> <li>repeating themselves</li> </ul>
		<ul> <li>Color coding information</li> <li>Create fact sheets</li> <li>Use a "Reader"</li> </ul>	repeating memory s
2 Return to full academics	- School work should be completed in a timely manner	-Rest breaks as needed - Increased time for assessments - Retake assignments -Create to – do lists	Observer increased symptoms or reoccurrence of symptoms
1 Returning to Athletics	- All course work should continue to - Follow the return to sport progression	- Rest breaks as needed	Observer increased symptoms or reoccurrence of symptoms
0 No restrictions	-Observations of student academically, emotionally, and physical	- None	- Depression, attention changes, increased anxiety

### Return to Extracurriculars



A Day in the Life

# A Day in the of Life a Level 3

Time		Time	
730am	Meet with Mrs. O'Conner for evaluation	1230pm	Meet with Mr. Poirot about missing assignments
800am	Attend morning gathering	210pm	Last class
820am	Too much clapping is causing headache - back to the health office to rest	300pm	Meet with Mr. Drew for additional evaluation – told to sit at practice - no physical activity
850am	Attend first class	530pm	Dinner
945am	Attend second class – wearing sunglasses because of the projector	615pm	Rest time- no tv
1040am	Attend third class – they are taking a test, review an assignment with the teacher from last class	730pm	Study hall – intermittent homework 20 minutes at a time.
1135am	Lunch – sit in side meeting room because of loud noises	930pm	Bed time

### Prevention

This year we will be involved in a neck strengthening program to help reduce the rate of concussions. It will be a few simple exercises done daily.

# Chin Crunch

#### Position

- Flat on back
- Knees bent
- Toes up
- Arms bent
- Back of hand against the ground Motion
- Chin to chest
- Lift head off the ground
- Hold each rep for 3 second Frequency
- Week 1 1 set of 10 reps
- Week 3 2 sets of 10 reps



Please view videos on computer

# Chin Lift

#### Position

- Flat on back
- Knees bent
- Toes up
- Arms bent
- Back of hand against the ground Motion
- Face straight up parallel to the ground
- Hold each rep for 3 second

Frequency

- Week 1 1 set of 10 reps
- Week 3 2 sets of 10 reps



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# Mini-Bridge

#### Position

- Flat on back
- Knees bent
- Toes up
- Arms at sides

#### Motion

- Pull chin down
- Press the back of you head towards the ground
- Hold each rep for 3 second

#### Frequency

- Week 1 1 set of 10 reps
- Week 3 2 sets of 10 reps



#### Please view videos on computer

### "Neckcersizes"

Name	Position	Action
Chin Crunch	<ul> <li>Flat on back</li> <li>Knees bent</li> <li>Toes up</li> <li>Arms bent</li> <li>Back of hand against the ground</li> </ul>	<ul> <li>Chin to chest</li> <li>Lift head off the ground</li> <li>Hold each rep for 3 second</li> </ul>
Chin Lift	<ul> <li>Flat on back</li> <li>Knees bent</li> <li>Toes up</li> <li>Arms bent</li> <li>Back of hand against the ground</li> </ul>	<ul> <li>Face straight up – parallel to the ground</li> <li>Hold each rep for 3 second</li> </ul>
Mini- Bridge	<ul> <li>Flat on back</li> <li>Knees bent</li> <li>Toes up</li> <li>Arms at sides</li> </ul>	<ul> <li>Pull chin down</li> <li>Press the back of your head towards the ground</li> <li>Hold each rep for 3 second</li> </ul>
Neck	<ul> <li>Standing or sitting</li> <li>One arm behind back</li> <li>Opposite hand reaching over the head holding onto the temple</li> </ul>	<ul> <li>With the top hand, pull the head away from the arm behind your back</li> <li>Hold for 30seconds</li> <li>Switch sides</li> </ul>
Chest	<ul> <li>Lying on the ground face down (or facing a wall standing up)</li> <li>One arm behind you with the elbow bent</li> <li>Look away from that arm</li> </ul>	<ul> <li>Twist body entire body away from your arm</li> <li>Hold for 30 seconds</li> <li>Switch sides</li> </ul>