



# Baseline Concussion Testing

Presented to:

**CHS** CATHOLIC HIGH SCHOOL

Dear Parents,

As a continued benefit to Catholic High School Sports Medicine Program, Moreau Physical Therapy is proud to offer Pre-participation baseline concussion testing for the upcoming school year.

There is growing concern regarding safe return to play, proper diagnosis, and appropriate management of concussions. Baseline concussion testing can help ensure that concussion symptoms are recognized early and that athletes are not allowed to return to play before they are fully ready. By having baseline values, we can provide team physicians with objective data to allow athletes to return to play when they are truly symptom free. This reduces the risk of further injury due to a concussion. In the event of a concussion, the pre and post concussion data can be used in the rehabilitation process of young athletes to enhance recovery.

Our usual price for baseline Neuro-Cognitive Testing is \$50 and Balance Testing is \$25. We are offering a baseline screen for both of these tests to Catholic High School Athletes for \$30.

For further questions please contact us at [info@moreaupt.com](mailto:info@moreaupt.com) or 225-275-3177.

Sincerely,

Al C. Moreau, III, PT, MPT

Moreau Physical Therapy

[www.moreauPT.com](http://www.moreauPT.com)

# CONCUSSION MANAGEMENT

## Objective

- To provide pre-participation baseline concussion testing for impact sports utilizing the Impact Neuro-Cognitive testing system and Biodex Balance System Concussion screening programs.
- Perform Post-Concussion testing and compare to Baseline norms to assist physicians in determining safe and appropriate return to play.
- Moreau Physical Therapy utilizes Baseline values for players to perform appropriate rehabilitation and safe return to sport after a concussion occurs.

According to the CDC (Centers For Disease Control and Prevention) baseline testing should take place pre-season and consist of balance and cognitive testing (see FAQ's from the CDC attached on page 5).





## ImPACT Information for Parents

### What is ImPACT?

ImPACT (Immediate Post-Concussion Assessment and Cognitive Testing) is the first, most-widely used, and most scientifically validated computerized concussion evaluation system. ImPACT was developed IN THE 1990s to provide useful information to assist qualified practitioners in making sound return to play decisions following concussions.

### Why use ImPACT?

Given the inherent complexities of concussion management, it is important to manage concussions on an individualized basis and to implement baseline testing and/or post-injury neurocognitive testing whenever possible. Neurocognitive assessment can help to objectively evaluate the concussed athlete's post-injury condition and track recovery for safe return to play, thus preventing the cumulative effects of concussion. In fact, neurocognitive testing has been called the "cornerstone" of proper concussion management by an international panel of sports medicine experts.

### Who is currently using ImPACT?

Some of the individuals using ImPACT include all of MLB, NHL, NFL and WWE. Over 7400 high schools, 1,300 colleges and universities, 1,200 clinical centers, 225 professional teams, select military units, Cirque du Soleil, New Zealand and South African rugby teams also use ImPACT.

### What does the ImPACT test look like?

To view a demo of the ImPACT test please visit their website at,  
<http://www.impacttestonline.com/impacttestdemo/>

### ImPACT is NOT

ImPACT is not: A diagnostic test, ImPACT is one tool that can be used by medical professionals to help measure an individual's recovery from a concussion

ImPACT is not: A one step solution to concussions

ImPACT is not: A preventative tool, nothing can prevent concussions

ImPACT is not: A substitute for medical treatment or management

ImPACT is not: A replacement for a cat scan, MRI or other medical technology

ImPACT is not: A home-based test, ImPACT should always be administered in the presences of a trained supervisor

### Where can I go to learn more about the ImPACT Test?

Please visit ImPACT's website, [www.impacttest.com](http://www.impacttest.com).

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[www.impacttest.com](http://www.impacttest.com)

2000 Technology Drive, #150 • Pittsburgh, PA 15219 • (877) 646-799





## FAQs about Baseline Testing among Young Athletes

To help answer some common questions about baseline testing among young athletes, CDC has compiled a list of frequently asked questions to help you, your school, or your league prepare for concussions both pre- and post-season.

### **What is baseline testing?**

Baseline testing is a pre-season exam conducted by a trained health care professional. Baseline tests are used to help assess an athlete's balance and brain function (including learning and memory skills, ability to pay attention or concentrate, and how quickly he or she thinks and solve problems), as well for the presence of any concussion symptoms. Results from baseline tests (or pre-injury tests) can be used and compared to a similar exam conducted by a health care professional during the season if an athlete has a suspected concussion.

Baseline testing should take place during the pre-season—ideally prior to the first practice. It is important to note that some baseline and concussion assessment tools are only suggested for use among athletes ages 10 years and older.

### **How is baseline testing information used if an athlete has a suspected concussion?**

Results from baseline testing can be used if an athlete has a suspected concussion. Comparing post-injury test results to baseline test results can assist health care professionals in identifying the effects of the injury and making more informed return to school and play decisions.

Education should always be provided to athletes and parents if an athlete has a suspected concussion. This should include information on safely returning to school and play, tips to aid in recovery (such as rest), dangers signs and when to seek immediate care, and how to help reduce an athlete's risk for a future concussion.

### **What should be included as part of baseline testing?**

Baseline testing should include a check for concussion symptoms, as well as balance and cognitive (such as concentration and memory) assessments. Computerized or paper-pencil neuropsychological tests may be included as a piece of an overall baseline test to assess an athlete's concentration, memory, and reaction time.

During the baseline pre-season test, health care professionals should also assess for a prior history of concussion (including symptoms experienced and length of recovery from the injury). It is also important to record other medical conditions that could impact recovery after concussion, such as a history of migraines, depression, mood disorders, or anxiety, as well as learning disabilities and Attention Deficit/Hyperactivity Disorder. Baseline testing also provides an important opportunity to educate athletes and others about concussion and return to school and play protocols.

### **Who should interpret baseline tests?**

Only a trained health care professional with experience in concussion management should interpret the results of baseline exam. When possible, ideally a neuropsychologist should interpret the computerized or paper-pencil neuropsychological test components of a baseline exam. Results of neuropsychological tests should not be used as a stand-alone diagnostic tool, but should serve as one component used to make return to school and play decisions.

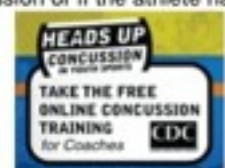
### **How often should an athlete undergo baseline testing?**

It is recommended that most components of baseline testing be repeated annually to establish a valid test result for comparison. Baseline computerized or paper-pencil neuropsychological tests may be repeated every 2 years. However, more frequent neuropsychological testing may be needed if an athlete has sustained a concussion or if the athlete has a medical condition that could affect results of the the test.

### **Who should administer baseline tests?**

Baseline tests should only be conducted by a trained health care professional.

Resources for coaches and parents: visit [www.cdc.gov/concussion](http://www.cdc.gov/concussion)





# Heads Up to Schools: KNOW YOUR CONCUSSION ABCs

- Assess the situation
- Be alert for signs and symptoms
- Contact a health care professional

## A Fact Sheet for Parents

### What is a concussion?

A concussion is a type of brain injury that changes the way the brain normally works. A concussion is caused by a bump, blow, or jolt to the head. Concussions can also occur from a blow to the body that causes the head and brain to move rapidly back and forth. Even what seems to be a mild bump to the head can be serious.

Concussions can have a more serious effect on a young, developing brain and need to be addressed correctly.

### What are the signs and symptoms of a concussion?

You can't see a concussion. Signs and symptoms of concussion can show up right after an injury or may not appear or be noticed until hours or days after the injury. It is important to watch for changes in how your child or teen is acting or feeling, if symptoms are getting worse, or if s/he just "doesn't feel right." Most concussions occur without loss of consciousness.

If your child or teen reports *one or more* of the symptoms of concussion listed below, or if you notice the symptoms yourself, seek medical attention right away. Children and teens are among those at greatest risk for concussion.

### SIGNS AND SYMPTOMS OF A CONCUSSION

#### SIGNS OBSERVED BY PARENTS OR GUARDIANS

- Appears dazed or stunned
- Is confused about events
- Answers questions slowly
- Repeats questions
- Can't recall events prior to the hit, bump, or fall
- Can't recall events after the hit, bump, or fall
- Loses consciousness (even briefly)
- Shows behavior or personality changes
- Forgets class schedule or assignments

#### SYMPTOMS REPORTED BY YOUR CHILD OR TEEN

##### Thinking/Remembering:

- Difficulty thinking clearly
- Difficulty concentrating or remembering
- Feeling more slowed down
- Feeling sluggish, hazy, foggy, or groggy

##### Physical:

- Headache or "pressure" in head
- Nausea or vomiting
- Balance problems or dizziness
- Fatigue or feeling tired
- Blurry or double vision
- Sensitivity to light or noise
- Numbness or tingling
- Does not "feel right"

##### Emotional:

- Irritable
- Sad
- More emotional than usual
- Nervous

##### Sleep\*:

- Drowsy
- Sleeps less than usual
- Sleeps more than usual
- Has trouble falling asleep

*\*Only ask about sleep symptoms if the injury occurred on a prior day.*

To download this fact sheet in Spanish, please visit: [www.cdc.gov/Concussion](http://www.cdc.gov/Concussion). Para obtener una copia electrónica de esta hoja de información en español, por favor visite: [www.cdc.gov/Concussion](http://www.cdc.gov/Concussion).

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
CENTERS FOR DISEASE CONTROL AND PREVENTION





## DANGER SIGNS

Be alert for symptoms that worsen over time. Your child or teen should be seen in an emergency department right away if s/he has:

- One pupil (the black part in the middle of the eye) larger than the other
- Drowsiness or cannot be awakened
- A headache that gets worse and does not go away
- Weakness, numbness, or decreased coordination
- Repeated vomiting or nausea
- Slurred speech
- Convulsions or seizures
- Difficulty recognizing people or places
- Increasing confusion, restlessness, or agitation
- Unusual behavior
- Loss of consciousness (even a brief loss of consciousness should be taken seriously)

Children and teens with a concussion should **NEVER** return to sports or recreation activities on the same day the injury occurred. They should delay returning to their activities until a health care professional experienced in evaluating for concussion says they are symptom-free and it's OK to return to play. This means, until permitted, not returning to:

- Physical Education (PE) class,
- Sports practices or games, or
- Physical activity at recess.

## What should I do if my child or teen has a concussion?

1. **Seek medical attention right away.** A health care professional experienced in evaluating for concussion can determine how serious the concussion is and when it is safe for your child or teen to return to normal activities, including physical activity and school (concentration and learning activities).
2. **Help them take time to get better.** If your child or teen has a concussion, her or his brain needs time to heal. Your child or teen may need to limit activities while s/he is recovering from a concussion. 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. After a concussion, physical and cognitive activities—such as concentration and learning—should be carefully managed and monitored by a health care professional.
3. **Together with your child or teen, learn more about concussions.** Talk about the potential long-term effects of concussion and the dangers of returning too soon to normal activities (especially physical activity and learning/concentration). For more information about concussion and free resources, visit: [www.cdc.gov/Concussion](http://www.cdc.gov/Concussion).

## How can I help my child return to school safely after a concussion?

Help your child or teen get needed support when returning to school after a concussion. Talk with your child's teachers, school nurse, coach, speech-language pathologist, or counselor about your child's concussion and symptoms. Your child may feel frustrated, sad, and even angry because s/he cannot return to recreation and sports right away, or cannot keep up with schoolwork. Your child may also feel isolated from peers and social networks. Talk often with your child about these issues and offer your support and encouragement. As your child's symptoms decrease, the extra help or support can be removed gradually. Children and teens who return to school after a concussion may need to:

- Take rest breaks as needed,
- Spend fewer hours at school,
- Be given more time to take tests or complete assignments,
- Receive help with schoolwork, and/or
- Reduce time spent reading, writing, or on the computer.



\*To learn more about concussion and to order materials **FREE-OF-CHARGE**, go to: [www.cdc.gov/Concussion](http://www.cdc.gov/Concussion) or call 1.800.CDC.INFO.



**CONSENT FOR COGNITIVE TESTING and RELEASE OF INFORMATION**

I give my permission for (name of child) \_\_\_\_\_

(child's date of birth) \_\_\_\_\_

to have a post-concussion ImPACT® (Immediate Post-concussion Assessment and Cognitive Testing) administered at **Catholic High School/Moreau Physical Therapy**. I understand that my child may need to be tested more than once, depending upon the results of the test, as compared to my child's baseline test, which is on file at **Catholic High School/Moreau Physical Therapy**.

**Catholic High School/Moreau Physical Therapy** may release the ImPACT (Immediate Post-concussion Assessment and Cognitive Testing) results to my child's primary care physician, neurologist, school physician or other treating physician, as indicated below.

I understand that general information about the test data may be provided to my child's guidance counselor and teachers, for the purposes of providing temporary academic modifications, if necessary.

Print Name of parent or guardian: \_\_\_\_\_

Signature of parent or guardian: \_\_\_\_\_

Date: \_\_\_\_\_

PLEASE PRINT THE FOLLOWING INFORMATION:

Name of doctor: \_\_\_\_\_

Name of practice or group: \_\_\_\_\_

Phone number: \_\_\_\_\_

Student's home address: \_\_\_\_\_

Parent or guardian phone numbers (please indicate preferred contact number & time if necessary):

\_\_\_\_\_ (H) \_\_\_\_\_ (W)

\_\_\_\_\_ (cell)

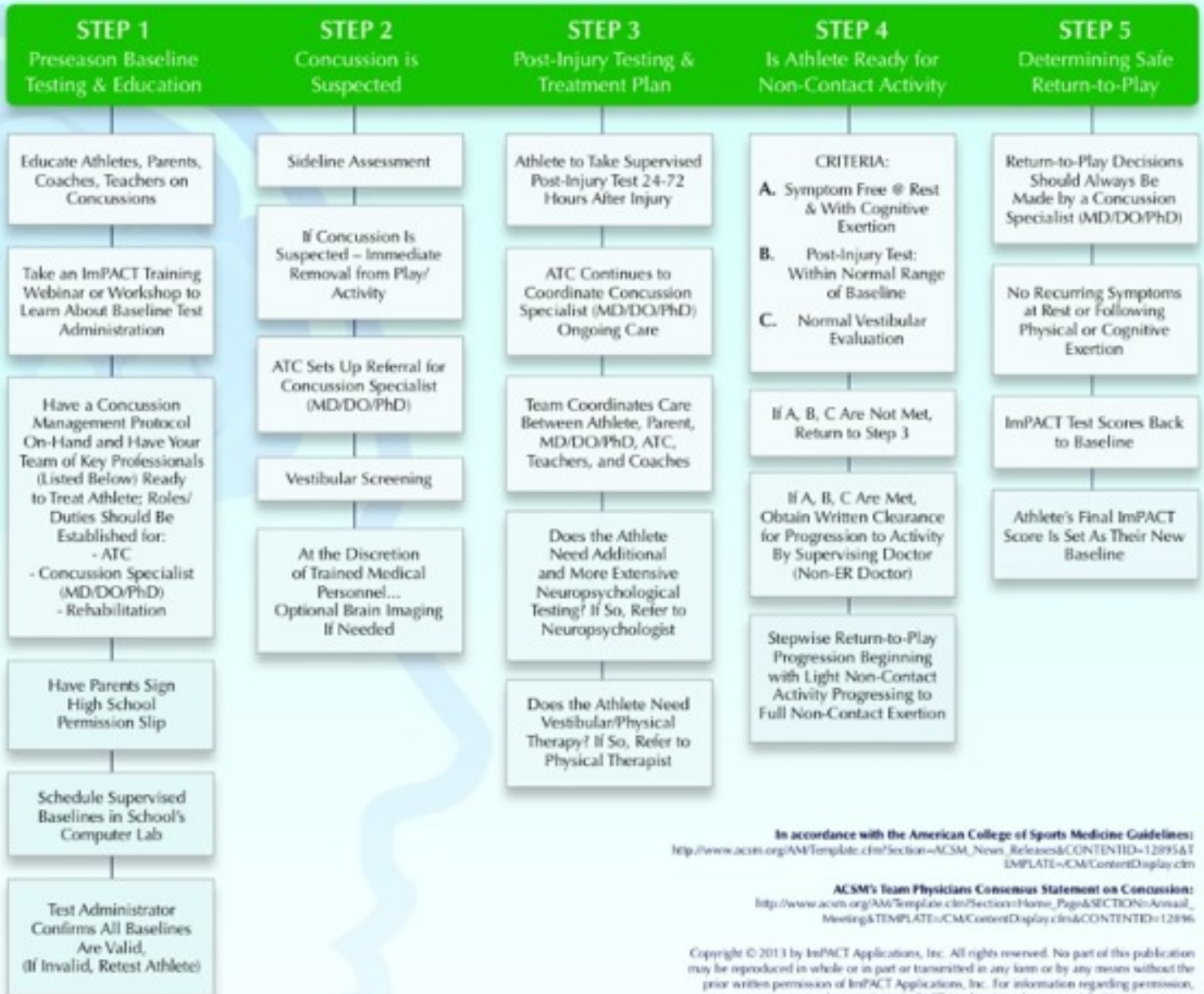
2/2013



# BEST PRACTICES



## Concussion Management Model for Schools and Teams



In accordance with the American College of Sports Medicine Guidelines:  
[http://www.acsm.org/AM/Template.cfm?Section=ACSM\\_News\\_Releases&CONTENTID=12895&TEMPLATE=/CM/ContentDisplay.cfm](http://www.acsm.org/AM/Template.cfm?Section=ACSM_News_Releases&CONTENTID=12895&TEMPLATE=/CM/ContentDisplay.cfm)

ACSM's Team Physicians Consensus Statement on Concussion:  
[http://www.acsm.org/AM/Template.cfm?Section=Home\\_Page&SECTION=Annual\\_Meeting&TEMPLATE=/CM/ContentDisplay.cfm&CONTENTID=12896](http://www.acsm.org/AM/Template.cfm?Section=Home_Page&SECTION=Annual_Meeting&TEMPLATE=/CM/ContentDisplay.cfm&CONTENTID=12896)

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