# Patients of the URMC Sports Concussion Program Benefit from:

The most prompt and effective care and customized treatment plan to accelerate return-to-play.

Nearly 40 subspecialists with expertise spanning every area of orthopaedics and neurosurgery.

High-quality care provided by the largest, most comprehensive medical practice dedicated to sports medicine in the Rochester, New York nine-county region.

Physician assistants, physical therapists and athletic trainers who have completed extensive training in the management of the full array of orthopaedic conditions, as well as the treatment of concussions. All critical resources for treatment and aftercare of sports injuries are available at three convenient locations in Brighton and Greece.

Sports medicine providers who also treat athletes from many area high schools, local colleges and professional teams.

Special services that allow for consultation with our physicians any day at any hour — and our treatment schedules are designed to accommodate in-season competitive athletes on an urgent basis. (During normal office hours, we can arrange for a same-day appointment.)

Remember, the effects of a concussion can be subtle and may only be detected by someone experienced in recognizing the signs and symptoms of mild concussion.

For more information, to schedule an appointment, or to set up an educational seminar, please call us at (585) 275-0299 or visit concussion.urmc.edu.

Patients are seen at the following locations:

## URMC Orthopaedics and Rehabilitation Brighton

4901 Lac de Ville Blvd., Bldg. D | Rochester, NY 14618

#### Greece

10 South Pointe Landing | Rochester, NY 14606

#### Rochester Neurosurgery Partners 2180 S. Clinton Ave. | Rochester, NY 14618

WE ACCEPT MOST MAJOR INSURANCES.

Some insurance carriers require a referral from a primary care physician.





MEDICINE of THE HIGHEST ORDER

## URMC Sports Concussion Program

A collaboration between URMC Orthopaedics and Rehabilitation and the Department of Neurosurgery



Providing evaluation, treatment and rehabilitation for sports-related head injuries.



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## Facts About Sports-Related Concussions

According to a 2010 study, the number of Emergency Department visits due to concussions in children between 8 and 13 years of age more than doubled in the previous 10 years. Approximately half of these concussions were related to organized sports. Some experts believe this increase in injuries may be due to more competitiveness in youth sports and intensity in practice.

URMC Orthopaedics and Rehabilitation and the Department of Neurosurgery have joined together to deliver the latest in medical care to prevent, evaluate and monitor sports-related concussions. Our Sports Concussion Program physicians provide care for both recreational and competitive athletes of all ages, as well as for individuals with active jobs who may also suffer athletic-like injuries.

### Our Physicians:

Jeffrey J. Bazarian, MD, MPH Mark H. Mirabelli, MD E. James Swenson, Jr., MD

## Consulting Neurosurgeon:

Jason H. Huang, MD

1 August 2010, CNN Health and Pediatrics Magazine

Concussions can occur in any sport but most result from ice hockey and football. Equestrian sports, soccer, bicycling, martial arts, wrestling and lacrosse also have a high concussion rate.

### What Is a Concussion?

A concussion occurs when a sudden force to the body interrupts brain function. Although it is commonly believed that a head injury is involved, this is not always the case. Not every head injury results in a concussion — and other serious brain, head and neck injuries could coincide with a concussion.

## What Are the Symptoms?

A concussion involves changes in the chemistry of the brain; however, an athlete does not need to lose consciousness to have a concussion.

#### The most common symptoms are:

- Headache
- Dizziness
- Confusion
- Ringing in the ears
- Blurred vision
- Sensitivity to light or noise
- Upset stomach and/or vomiting
- Difficulty sleeping
- Cognitive disturbances such as memory lapses
- Difficulty retaining new information

Some of the above symptoms will only last an hour or two and others may last up to one week. In rare cases, symptoms may persist for three or more weeks. This is called "post-concussion syndrome." If symptoms continue, an individual may require more in-depth neurological care. Our team can perform an examination and

facilitate further evaluation if needed.

How Can the URMC Sports Concussion Program Help?

If an athlete is suspected to have suffered a concussion, he or she may be referred to one of the URMC Sports Concussion Program physicians. After we review all symptoms and perform an examination, we'll determine if any further tests, such as a CT scan, are necessary. Because sports-related concussions may be treated in a variety of ways — our physicians will also develop the

most appropriate care plan.

Suffering a second head injury while recovering from an initial concussion can have catastrophic consequences, including death. Knowing when it is safe to return to play in order to avoid serious brain injury is crucial.

The URMC Sports Concussion Program physicians have a long history of clinical and translational research with concussion patients and continue to actively research better ways to diagnose and treat the condition.

#### Examples of tests that may be performed include:

Evaluation of balance using the Balance Error Scoring System and Nintendo® Wii<sup>™</sup> Balance Board.

Advanced brain imaging with MRI, susceptibility weighted imaging (SWI) and diffusion tensor imaging (DTI).

## When Can an Athlete Return to Play?

Most athletes recover completely and can return to play within a few weeks. Typically, athletes are removed from sports until all symptoms have resolved and, if they have taken a neuropsychological test, their scores have normalized. Athletes must pass a supervised graduated return-to-play protocol before being allowed unrestricted sports participation.