Heads Up:
Preventing Concussion

A concussion is a brain injury. Concussions are caused by a bump, blow, or jolt to the head. They can range from mild to severe and can disrupt the way the brain normally works.

Most people will only experience symptoms from a concussion for a short period of time. But sometimes concussion can lead to long-lasting problems. The best way to protect yourself and your family from concussions is to prevent them from happening.

How to Prevent a Concussion

There are many ways to reduce the chances that you or your family members will have a concussion or more serious brain injury:

- Wear a seat belt every time you drive or ride in a motor vehicle.
- Buckle your child in the car using a child safety seat, booster seat, or seat belt (according to the child's height, weight, and age).
    - Children should start using a booster seat when they outgrow their child safety seats (usually when they weigh about 40 pounds). They should continue to ride in a booster seat until the lap/shoulder belts in the car fit properly, typically when they are approximately 4'9" tall.
- Never drive while under the influence of alcohol or drugs.
- Wear a helmet and make sure your children wear helmets that are fitted and maintained properly when:
    - Riding a bike, motorcycle, snowmobile, scooter, or all-terrain vehicle;
    - Playing a contact sport, such as football, ice hockey, lacrosse, or boxing;
    - Using in-line skates or riding a skateboard;
    - Batting and running bases in baseball or softball;
    - Riding a horse; or
    - Skiing, sledding, or snowboarding.
- Ensure that during athletic games and practices, you and/or your children:
    - Use the right protective equipment (should be fitted and maintained properly in order to provide the expected protection);
    - Follow the safety rules and the rules of the sport;
    - Practice good sportsmanship; and
    - Do not return to play with a known or suspected concussion until you have been evaluated and given permission by an appropriate health care professional.
- Make living areas safer for seniors by:
    - Removing tripping hazards such as throw rugs and clutter in walkways;
    - Using nonslip mats in the bathtub and on shower floors;
    - Installing grab bars next to the toilet and in the tub or shower;
    - Installing handrails on both sides of stairways;
    - Improving lighting throughout the home; and
    - Maintaining a regular exercise program to improve lower body strength and balance, if your health care professional agrees.
- Make living areas safer for children by:
    - Installing window guards to keep young children from falling out of open windows;
    - Using safety gates at the top and bottom of stairs when young children are around;
    - Keeping stairs clear of clutter;
    - Securing rugs and using rubber mats in bathtubs; and
    - Not allowing children to play on fire escapes or on other unsafe platforms.
- Make sure the surface on your child's playground is made of shock-absorbing material, such as hardwood mulch or sand, and is maintained to an appropriate depth.

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

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When to Call the Doctor: Signs and Symptoms of Concussion

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Here is a list of common signs and symptoms of a concussion.
If you or a family member has an injury to the head and you notice any of the symptoms on the list, call your doctor right away. Describe the injury and symptoms and ask if you should make an appointment to see your doctor or another specialist.

Signs and Symptoms of Concussion

- Difficulty thinking clearly
- Feeling slowed down
- Difficulty concentrating
- Difficulty remembering
- Difficulty following conversation or directions
- Answers questions more slowly or repeatedly
- Dazed or stunned
- Headache
- Nausea or vomiting
- Clumsiness or balance problems
- Dizziness
- Fuzzy or blurry vision
- Feeling tired all of the time, having no energy
- Sensitivity to light
- Sensitivity to noise
- Numbness/tingling
- Irritability
- Sadness
- More emotional
- Nervousness or anxiety
- Sleeping more than usual
- Sleeping less than usual
- Trouble falling asleep
- Drowsiness

When you visit your doctor, here are some important questions to ask:

- What can I do to help my recovery from this injury?
- When is it safe to get back to my daily routine, such as school, work, or playing sports and doing other physical activities?
- What can I do to keep from injuring myself again?

For more information, contact…

Centers for Disease Control and Prevention (CDC)
CDC's National Center for Injury Prevention and Control works to reduce disability, deaths, and costs associated with injuries. CDC has a wide variety of resources and materials about concussion and other types of injuries. Call CDC toll-free at 1-800-CDC-INFO (1-800-232-4636) or visit CDC's Injury Center on the Web at www.cdc.gov/injury.

Defense and Veterans Brain Injury Center
The Defense and Veterans Brain Injury Center (DVBIC) identifies active duty military and veterans with brain injury and provides resources to ensure they receive the best evaluation, treatment, and follow-up. Call DVBIC toll-free at 1-800-870-9244 or visit DVBIC on the Web at www.dvbic.org.

Brain Injury Association of America
The Brain Injury Association of America (BIAA) focuses on prevention, research, education, and advocacy. BIAA has a national network of more than 40 state affiliates across the country and hundreds of local chapters and support groups. Call BIAA toll-free at 1-800-444-6443 or visit BIAA on the Web at www.biausa.org.

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Acute Concussion Evaluation (ACE)
Care Plan

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Patient Name:_____
DOB: _____ Age:_____
Date:_____ ID/MR#_____
Date of Injury:_____

You have been diagnosed with a concussion (also known as a mild traumatic brain injury). This personal plan is based on your symptoms and is designed to help speed your recovery. Your careful attention to it can also prevent further injury.

Rest is the key. You should not participate in any high risk activities (e.g., sports, physical education (PE), riding a bike, etc.) if you still have any of the symptoms below. It is important to limit activities that require a lot of thinking or concentration (homework, job-related activities), as this can also make your symptoms worse. If you no longer have any symptoms and believe that your concentration and thinking are back to normal, you can slowly and carefully return to your daily activities. Children and teenagers will need help from their parents, teachers, coaches, or athletic trainers to help monitor their recovery and return to activities.

Today the following symptoms are present (circle or check). ____**No reported symptoms**

Physical		Thinking	Emotional	Sleep
Headaches	Sensitivity to light	Feeling mentally foggy	Irritability	Drowsiness
Nausea	Sensitivity to noise	Problems concentrating	Sadness	Sleeping more than usual
Fatigue	Numbness/Tingling	Problems remembering	Feeling more emotional	Sleeping less than usual
Visual problems	Vomiting	Feeling more slowed down	Nervousness	Trouble falling asleep
Balance Problems	Dizziness			

RED FLAGS: Call your doctor or go to your emergency department if you suddenly experience any of the following			
Headaches that worsen	Look very drowsy, can't be awakened	Can't recognize people or places	Unusual behavior change
Seizures	Repeated vomiting	Increasing confusion	Increasing irritability
Neck pain	Slurred speech	Weakness or numbness in arms or legs	Loss of consciousness

— SCHOOL VERSION —

Returning to Daily Activities

1. Get lots of rest. Be sure to get enough sleep at night- no late nights. Keep the same bedtime weekdays and weekends.
2. Take daytime naps or rest breaks when you feel tired or fatigued.
3. **Limit physical activity as well as activities that require a lot of thinking or concentration. These activities can make symptoms worse.**
   - Physical activity includes PE, sports practices, weight-training, running, exercising, heavy lifting, etc.
   - Thinking and concentration activities (e.g., homework, classwork load, job-related activity).
4. Drink lots of fluids and eat carbohydrates or protein to main appropriate blood sugar levels.
5. **As symptoms decrease, you may begin to gradually return to your daily activities. If symptoms worsen or return, lessen your activities, then try again to increase your activities gradually.**
6. During recovery, it is normal to feel frustrated and sad when you do not feel right and you can't be as active as usual.
7. Repeated evaluation of your symptoms is recommended to help guide recovery.

Returning to School

1. If you (or your child) are still having symptoms of concussion you may need extra help to perform school-related activities. As your (or your child's) symptoms decrease during recovery, the extra help or supports can be removed gradually.
2. Inform the teacher(s), school nurse, school psychologist or counselor, and administrator(s) about your (or your child's) injury and symptoms. School personnel should be instructed to watch for:
   - Increased problems paying attention or concentrating
   - Increased problems remembering or learning new information
   - Longer time needed to complete tasks or assignments
   - Greater irritability, less able to cope with stress
   - Symptoms worsen (e.g., headache, tiredness) when doing schoolwork

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This form is part of the "Heads Up: Brain Injury in Your Practice" tool kit developed by the Centers for Disease Control and Prevention (CDC).

Returning to School (Continued)

Until you (or your child) have fully recovered, the following supports are recommended: *(check all that apply)*

__No return to school. Return on (date)_____

__Return to school with following supports. Review on (date)_____

__Shortened day. Recommend ___ hours per day until (date)_____

__Shortened classes (i.e., rest breaks during classes). Maximum class length: _____ minutes.

__Allow extra time to complete coursework/assignments and tests.

__Lessen homework load by _____%. Maximum length of nightly homework: _____ minutes.

__No significant classroom or standardized testing at this time.

__Check for the return of symptoms (use symptom table on front page of this form) when doing activities that require a lot of attention or concentration.

__Take rest breaks during the day as needed.

__Request meeting of 504 or School Management Team to discuss this plan and needed supports.

Returning to Sports

1. **You should NEVER return to play if you still have ANY symptoms** – (Be sure that you do not have any symptoms at rest and while doing any physical activity and/or activities that require a lot of thinking or concentration.)
2. Be sure that the PE teacher, coach, and/or athletic trainer are aware of your injury and symptoms.
3. It is normal to feel frustrated, sad and even angry because you cannot return to sports right away. With any injury, a full recovery will reduce the chances of getting hurt again. It is better to miss one or two games than the whole season.

The following are recommended at the present time:

___ Do not return to PE class at this time

___ Return to PE class

___ Do not return to sports practices/games at this time

___ **Gradual** return to sports practices under the supervision of an appropriate health care provider (e.g., athletic trainer, coach, or physical education teacher).

- Return to play should occur in gradual steps beginning with aerobic exercise only to increase your heart rate (e.g., stationary cycle); moving to increasing your heart rate with movement (e.g., running); then adding controlled contact if appropriate; and finally return to sports competition.
- Pay careful attention to your symptoms and your thinking and concentration skills at each stage of activity. Move to the next level of activity only if you do not experience any symptoms at the each level. If your symptoms return, let your health care provider know, return to the first level, and restart the program gradually.

Gradual Return to Play Plan

1. No physical activity
2. Low levels of physical activity (i.e., *symptoms do not come back during or after the activity*). This includes walking, light jogging, light stationary biking, light weightlifting (lower weight, higher reps, no bench, no squat).
3. Moderate levels of physical activity with body/head movement. This includes moderate jogging, brief running, moderate-intensity stationary biking, moderate-intensity weightlifting (reduced time and/or reduced weight from your typical routine).
4. Heavy non-contact physical activity. This includes sprinting/running, high-intensity stationary biking, regular weightlifting routine, non-contact sport-specific drills (in 3 planes of movement).
5. Full contact in controlled practice.
6. Full contact in game play.

*Neuropsychological testing can provide valuable information to assist physicians with treatment planning, such as return to play decisions.

This referral plan is based on today's evaluation:

___ Return to this office. Date/Time_____

___ Refer to: Neurosurgery____ Neurology____ Sports Medicine____ Physiatrist____ Psychiatrist____ Other____

___ Refer for neuropsychological testing

___ Other_____

ACE Care Plan Completed by:_____