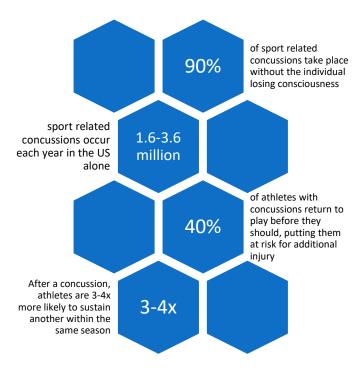
<u>Concussion</u>



A concussion is a type of traumatic brain injury—or TBI—caused by a bump, blow, or jolt to the head or by a hit to the body that causes the head and brain to move rapidly back and forth.

This sudden movement can cause the brain to bounce around or twist in the skull, creating chemical changes in the brain and sometimes stretching and damaging brain cells. These changes in the brain lead to symptoms that may

affect how a child thinks, learns, feels, acts, and sleeps. Symptoms are usually most severe right after the injury.^{1,2}



Signs and Symptoms

- Are different for each person!
- May change during recovery
- Are most severe 1-2 days after the injury
- May take hours or days to appear or be noticed
- Differ depending on your previous history and age of your child, as well as many other factors



What do I do if I suspect my child has sustained a concussion?

- Do not allow them to continue participating in physical activity until they have been evaluated by a qualified health care provider.
- Schedule an appointment to be seen for an evaluation: <u>Book Now!</u> Select "Concussion Initial Assessment". This is a *FREE* service for all UYSA athletes.

What should I expect for my first appointment?

- Discussion of injury and evaluation of current symptoms
- 15-20min iPad-based assessment
 - Reaction time
 - Processing speed
 - o Balance assessment
 - Eye tracking
- Immediate review of iPad-based assessment results and how they compare to your individual baseline (if you have one) or normative data
- Thorough explanation of a safe and gradual return to life, school, and sport plan
- Referral to specialists when needed

When do I schedule a follow up appointment?

- After you have safely progressed from Stage 1 Stage 3 and are no longer having symptoms, schedule your follow up appointment here: <u>Book Now!</u> Select "Concussion Follow up/Return to Play"
- There is a \$25 cash-based charge for your follow-up appointment.

What happens during the follow up appointment?

- Discussion of how things have gone since the initial assessment
- Re-test iPad-based assessment
 - Compare results to baseline/normative and post-injury
- Review what a safe return to soccer practice and competition looks like for you (Stage 4-6)

How do I schedule a baseline concussion assessment?

- You can book a baseline test here: **Book Now!** Select "Concussion Baseline Testing"
- There is a \$30 cash-based charge for this appointment

Do I need a baseline concussion assessment?

- You do not *need* one, but they can be very helpful! Baselines provide a more individualized approach to care.
- We would encourage anyone who has a previous history of concussion, diagnosed learning disabilities or ADD/ADHD, personal or family history of migraines, or motion sickness to consider baseline testing. These conditions can predispose you to increased risk for concussion, prolong recovery timelines and/or show skewed results compared to the normative data.



*Each stage below is <u>at least</u> 24hrs. If symptoms increase and do not resolve within 24hrs after completing the stage, rest until symptoms return to baseline and then repeat the stage you were on.

Stage 1 - Activities of Daily Living

- No physical activity
- Able to attend school and do other typical daily activities without an increase of symptoms more than 1-2 points

Stage 2 - Light Aerobic Activity

- Can start when symptoms have begun to decrease
- <70% of max effort
- 10-30min stationary bike

Stage 3 - Moderate Aerobic Intensity

- Only start when very low to no symptoms
- 70-85% of max effort
- 1-2 hours of total work
- Examples: stationary bike, jogging, 6x40yrd sprints @ 50%/75%/100% (2 each), easy/moderate resistance training, 1:1 technical training with the ball, passing/shooting on targets, easy/moderate core exercises

Stage 4 - Non-Contact Training

- Can start when symptom free and after a follow up assessment
- 100% effort
- Small group training, increase from small field to full field
- No headers, no contact (helps to wear a pinnie)

Stage 5 - Full Contact Training

Practice with no restrictions

Stage 6 - Full Return to Competition

Game with no restrictions

Resources

- 1. Concussion Basics | HEADS UP | CDC
- 2. Concussion Resources & Facts | Concussion.org
- 3. UYSA Concussion Clearance Form

Nutrition for Concussion Recovery: What foods to focus on and what to avoid

| Nutrient | Recommendation | Impact | Sources |
|-----------------|--|--|--|
| Omega-3 | 2-4 g/day | Crucial for decreasing inflammation and improving cognitive function | Food: Salmon, tuna, chia seeds, flax seeds Supplement: Triglyceride based with EPA and DHA |
| Creatine | 4-5 g/day | Supports cognitive health, decreases severity of brain injury, and maintains energy levels | Food: Beef, poultry, pork, fish Supplement: Creatine monhydrate |
| Magnesium | 400 mg/day | Promotes cognitive recovery, improves behavioral deficits and controls brain damage | Food: almonds, seeds, cashews, peanuts, quinoa, bananas Supplement: Magnesium L-Threonate or Glycinate |
| Melatonin | If trouble sleeping take 2 mg at night | Supports sleep quality | Food: Nuts, eggs, fish, tart cherries Supplement: as needed |
| Carbohydrates | 3-5 g/kg body weight per day | Maintains health and body functions, main energy source for the brain | Potatoes, breads, pastas, fruit, beans, etc. |
| Protein | 1.6-2.2 g/kg body weight per day | Maintains health and body functions, supports recovery process | Meat, fish, poultry, nuts, seeds, beans, cheese, etc. |
| Caffeine | AVOID | Can exacerbate injury | Food: Coffee, energy drinks, tea, soda |
| Processed Foods | AVOID | Will increase inflammation, impede healing, and affect blood sugar levels | |



Looking for a more individualized approach for optimal nutritional support during concussion recovery? Contact Intermountain Sports Dietician Brooke Kudelka to schedule an appointment! brooke.kudelka@imail.org

