

NUTRIENTS FOR HEAD INJURY RECOVERY

Injury Description

Brain injuries are caused by an impact such as a bump or blow to the head, which causes the brain to collide with the skull. This disrupts normal function of the brain. One type of brain injury is a concussion, which can range from mild to severe. The abrupt impact can lead to bruising, swelling, and damage of brain tissue. Any type of athlete can experience a sport-related concussion.

Strategies for Optimal Recovery

1. **Consult with a sports medicine team** to develop a comprehensive recovery plan.
2. **Headaches, dizziness, and nausea are common side effects** of a concussion and may alter appetite.
Strategies to ensure adequate energy for healing:
 - ▶ Eat small, frequent meals every 2-3 hours consisting of nutrient-dense foods
 - ▶ Avoid skipping meals
 - ▶ Eat cold foods without strong smells to combat nausea
 - ▶ Identify foods that might trigger headaches and nausea, avoid when possible
3. **Prioritize protein rich foods** to promote brain tissue healing
4. **Drink plenty of fluids** to facilitate nutrient delivery and clearance of toxins to and from the brain.
5. **Increase sleep and rest hours** to help facilitate brain healing.
6. **Seek assistance** with difficult tasks such as food preparation if necessary.

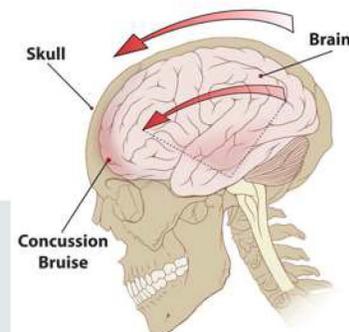


Diagram of an impact leading to a concussion

Common Side Effects of Concussions

- Headache/feeling pressure in the head
- Temporary loss of consciousness
- Confusion/feeling in a fog
- Dizziness
- Ringing in the ears
- Nausea/vomiting
- Slurred speech
- Delayed response
- Memory loss (severe cases)

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Nutrients Important for Healing

Omega 3 fatty acids may help to reduce the inflammation associated with brain injury, in particular DHA.

Creatine plays a role in maintaining cellular energy reserves in the brain, which are required for proper brain function.

Zinc is found in high concentrations within the brain and plays an important role in nerve transmission and neurological function.

Flavonoids exert antioxidant and anti-inflammatory effects, which may decrease brain swelling associated with concussions.

Magnesium levels are decreased in the brain and blood following a concussion. Maintaining magnesium levels is important for cellular function and sleep.

Note: Further research is needed to determine optimal dosages and length of supplementation for brain injury recovery. If considering supplements for treatment, consult with a sport dietitian or medical provider. Keep in mind food sources may be beneficial for healing based on nutrient function.

Food Sources of Key Nutrients

Omega 3 fatty acids - fatty fish (salmon, mackerel, sardines, tuna, trout), flaxseed, walnuts, canola oil

Creatine - wild game, red meat, poultry, fish

Zinc - oysters, beef, fortified cereals, pork, beans, dark meat chicken, yogurt, cashews, and chickpeas

Flavonoids - berries, grapes, citrus fruits, kale, broccoli, apples

Magnesium - pumpkin seeds, almonds, spinach, soy (milk, edamame, tofu), avocado, cashews, legumes

Meals & Snacks that Provide Key Nutrients

- *Yogurt with flaxseed and berries*
- *Fortified cereal with soy milk*
- *Kale salad with chickpeas, pumpkin seeds, cashews, and orange slices*
- *Trail mix with walnuts, cashews, pumpkin seeds, and dried blueberries*
- *Dark meat chicken salad with grapes and cashews*
- *Grilled salmon with broccoli and edamame*
- *Turkey and avocado burger with a fruit salad*
- *Black beans and brown rice*

Athlete Recommendations: