

UCLA SPORTS NUTRITION

Healing Champions!

IN SUMMARY

- Protein at Every Meal
- Stay Hydrated
- Antioxidants + Anti-Inflammatories
- Reference Your Injury Adjusted Athlete's Plate
- Follow Supplementation Protocols
- Get Better ☺

INJURY NUTRITION

Key nutrients are used daily to assist muscle growth, recovery, and repair. However, during a period of injury, nutrition becomes an even more vital component of the post-injury and rehabilitation period.

Having the proper nutritional components, in conjunction with proper therapy and re-training, can get you back in the game stronger and faster!

“Nutrition becomes an even more vital component of the post-injury and rehabilitation period.”

THE HEALING PROCESS

Phase I: Inflammation

Occurs for up to the first 5 days after injury

Phase II: Proliferation

5 days – 3 weeks post-injury. Tissue rebuilding and repair.

Phase III: Maturation

3 weeks – 2 years post-injury (depending on severity). Remodeling.

ENERGY NEEDS

Although it may seem common practice to believe that your energy needs will decrease during injury as result to decreased activity, that is actually not the case. Energy needs are slightly higher during injury to assist with the healing process. Depending on severity, resting energy expenditure (calories burned) can increase by 20%. Furthermore, immobilization of lower extremities and use of crutches can increase expenditure 2-3 fold. It is more important to achieve energy balance during the time of injury healing to ensure your body has sufficient calories and nutrients to attenuate muscle loss.



KEY NUTRIENTS TO HIGHLIGHT

I. Protein

- a. During the immobilization phase, muscle loss is greater, which can in turn lead to decreased strength. Athletes already have an increased protein need without injury. Therefore, the importance of protein during injury is even more vital. Although protein needs are highly individualized, a good rule of thumb

during injury is 1.7 – 2.0 g/kg daily. Protein should be included at every meal and snack, and spread out evenly throughout the day to ensure maximum absorption. Once the rehabilitation phase begins, protein should also be included following rehabilitation sessions.

II. **Anti-Inflammatories**

a. *Role: reduce inflammation, speed recovery time, support lean body mass*

b. **Omega 3 Fatty Acids**

i. **Sources:** Salmon, Tuna, Mackerel, Nuts/Seeds, Whole Eggs

ii. **Tip:** Choose Salmon over Chicken for your protein source at meals

c. **Flavanoids**

i. **Sources:** Berries, Cocoa, Onions, Kale, Broccoli, Citrus Fruits & Juices, Soybeans, Legumes

ii. Multiple times/day

d. **Proteases**

i. **Sources:** Pineapple, Papaya, Cheese, Whole Grains

ii. At least once daily

e. **Spices**

i. **Sources:** Turmeric/Curcumin, Parsley, Thyme, Garlic

ii. **Tip:** Use these spices when cooking meats and starches

III. **Antioxidants**

a. *Role: wound and bone healing, synthesizing new collagen, tissue repair*

b. **Vitamin C**

i. **Sources:** Bell Peppers, Citrus Fruits, Leafy Greens, Broccoli, Strawberries, Asparagus

ii. Vitamin C + Collagen before pre-loading activities to increase collagen

c. **Zinc**

i. **Sources:** Grass-fed Beef, Hummus, Yogurt, Cashews, Pumpkin Seeds, Mushrooms

d. **Calcium**

i. **Sources:** Dairy Products, Kale, Canned Salmon/Sardines (w/bones), Okra, Almonds

ITEMS TO LIMIT

I. **Alcohol**

a. Can negatively impact cell signaling and protein synthesis (important for recovery and maintaining lean body mass)

II. **Processed/Refined Foods**

a. Can increase body's inflammation levels and provide nutrient-poor sources of calories

b. Ex: packaged foods, refined oils, sugar

YOUR SAMPLE MEAL PLAN

- I. **Athlete's Plate:**
 - a. 1/3 lean protein
 - b. 1/2 vegetables
 - c. Remainder: whole grains & fruit, healthy fats

Daily

- II. **Pre-Rehab**
 - a. Fueling Station- Injury Shot
- III. **Post-Rehab**
 - a. Fueling Station- 1/2 cup Oatmeal with protein & injury smoothie
- IV. **Lunch**
 - a. Salad with 4.5 oz lean protein + 1/3 cup brown rice
- V. **Snack**
 - a. Vegetables with Hummus
 - b. Apple with Almonds
- VI. **Dinner**
 - a. Reference Athlete's Plate
- VII. **Pre-Bed Snack**
 - a. Protein Smoothie: 1 scoop Whey Protein + 1/2 cup Frozen Mixed Berries + 1 tbsp Chia Seeds + 1 tsp Honey + Almond Milk & blend



YOUR NUTRITIONAL SUPPLEMENTATION

- I. **Antioxidant**
 - a. 3/day
 - b. With food
- II. **Calcium**
 - a. 3/day
 - b. With food
 - c. Avoid iron-rich foods
- III. **Vitamin D**
 - a. 2/day
 - b. With food
 - c. Take with calcium, eat with dairy products to increase absorption
- IV. **Collagen + Vitamin C**
 - a. 15 mg Collagen + 50 mg Vitamin C
 - b. 20-30 min prior to rehab