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## Supplement Your Healing from an Injury

In a perfect world, we would all be able to run and exercise to our heart's content. However, pain and injuries happen to even the most elite athletes. That's when runners may hear the words they never want to hear from their health care professional: I would recommend that you do not run at this time.

Injuries are part of life. And no matter how hard we try to optimize our bodies with stretching, strengthening and joint/muscle optimization, sometimes injuries and pain are unpreventable. Because many athletes want to expedite their healing, they commonly ask if there are dietary recommendations or supplements that might improve the body's healing capacity so they can safely return to exercise as quickly as possible. Here are a few nutrient/vitamin recommendations to help you recover from an injury.

### **Vitamin C**

Collagen is a strong protein that is present in multiple tissues, including tendons, ligaments, bones, muscles and skin, to name a few. It helps provide elasticity. Most sports injuries involve the ligaments, tendons or muscles, so these are vital targets for healing. Vitamin C helps to stimulate the body's production of collagen, which can help rebuild injured muscles, tendons and ligaments. It can also help decrease tissue inflammation. Vitamin C is found in citrus fruits, tomatoes, dark greens and certain berries. Recommended daily dosage after an acute injury is typically 1000 mg.

### **Protein**

Protein is one of the building blocks of muscles and bones. Proteins comprise structures called amino acids and when there is an injury to a muscle, bone, tendon or ligament, the body uses these amino acids to help repair tissue. When an injury occurs, muscles usually aren't used as much and may even be immobilized, which can result in muscle loss. Increasing your protein intake during a time of injury may help curtail the loss of muscle mass and function, according to research. Protein also is an important macronutrient that will promote quicker and improved healing after surgery. Protein is found in meat, poultry, fish, eggs, nuts and beans. The recommended daily protein intake for injury repair is 1.5-2.5 g/kg.

### **Calcium and Vitamin D**

Calcium and Vitamin D are important for strong, healthy bones. So insufficient calcium and Vitamin D can lead to stress reactions or stress fractures, which are among the most common injuries in runners. Vitamin D is important because it helps your body absorb the calcium in foods. So if you do sustain a traumatic fracture, both calcium and Vitamin D can improve healing rates. Calcium is found in dairy products, broccoli, leafy greens and nuts. Vitamin D is found in dairy products, eggs and fish. Your body also can create Vitamin D during exposure to the sun. The daily recommendation for calcium is 1000- 1200 mg per day, but can increase to 2500 mg per day in cases of bone injury. The recommended dosage for Vitamin D is 600-800 international units per day.

### **Zinc**

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Zinc is a mineral that helps the body in many ways. It is vital to your immune system and important in cell function and wound healing. Studies have shown that a deficiency in zinc after an injury or surgery can delay tissue repair. Zinc is found in meat, fish, nuts, cereals and whole grains. The recommended daily dosage is 8 mg per day for females and 11 mg per day for males. Increased dosages of up to 40 mg per day may be safe for short periods of time; however, it is important not to ingest too much zinc as it competes with another mineral, copper, and can lead to copper deficiency. High dosages can also cause nausea and vomiting.

Many other vitamins and nutrients also can play a role in expediting your recovery, including Omega-3 fatty acids, Vitamin A, B vitamins, Vitamin E, iron, creatine and magnesium, to name a few. It is important to maintain a well-balanced diet with many of the vitamins and nutrients mentioned. But if you are recovering from an injury, bumping up your intake may get you back to your normal exercise routine more quickly.

If you have any questions or concerns about an injury or pain that you are experiencing, do not hesitate to reach out to one of our experienced sports medicine physicians at Corewell Health Orthopedics at (616) 267-8860. You can also find more information about our orthopedic program and providers on our [website](#).

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