

Nutrition to Support Injury Healing and Recovery

By: Tara Delloiacono Thies, RDN

Physical injury happens, especially in our active and outdoor community of athletes and adventurers. Whether it is an overuse injury or an acute injury, what you eat can make a big impact on your recovery.

After an injury or orthopedic surgery, one of the biggest goals of all active and athletic people is to heal fully and get back to the form of play they love. With the greatest amount of attention given to rest and rehabilitation, nutrition is often an underutilized tool in the comeback journey. Whole foods offer some of the best nutrition and include components that work synergistically to get you back in motion. While you can't out supplement a poor diet, there are supplements that can support a whole foods approach. Read on to learn more about some nutritional considerations for optimal recovery.

Types of injury that benefit from attention to nutrition include:

- Connective tissue (skin, cartilage, tendon, ligaments)
- Muscle strain and tears
- Bone (stress reaction, fracture, breaks)
- Concussions
- Post-Op recovery

Energy and Nutrients to Support Rehabilitation from Injury

Calories

The body needs enough calories to do the work of healing and to meet your modified mobility and physical activity level. This is not an easy thing to decipher as a major injury can result in a fifteen to twenty percent increase in your metabolic rate! A major surgery can increase your needs by almost fifty percent. The increase in energy needs is your body's way of gearing up to repair the damage. Despite being less mobile, it is not the time to severely restrict calories. While determining your exact calories needs can be done by working with a dietitian, a good place to start is by eating less than you would when you are able to be active and exercise, but more than if you were just sitting around all day.

Quality of calories however, matters immensely. Eat more fruit, vegetables, and protein! Reduce carbohydrates but don't cut them out completely. For help determining your needs please schedule a Nutrition Consultation at the Center for Health.

Protein

Injury repair requires the all-powerful macronutrient timing, type, and amount of protein eaten throughout the day can help decrease the extent of muscle loss associated with reduction in mobility after injury. Eating enough protein isn't usually the biggest challenge. It is eating protein consistently distributed over the course of the day that requires the most attention. Instead of "back-loading" your day with a big portion of protein at dinner, aim for three-four ounce portions (about the shape and thickness of the palm of your hand) three to four times per day.

Quality Carbohydrates

Managing inflammation is part of the recovery process. Colorful fruits and starchy colorful vegetables contain antioxidants like beta-carotene, selenium, and nutrients with anti-inflammatory properties known as flavonoids. Garlic, onions, turmeric, blueberries, acorn squash, sweet potatoes, apples, raspberries, and citrus fruits can stack together with high fiber, whole grains to deliver quality energy in addition to powerful antioxidants and anti-inflammatory nutrients.

Nitrate from Whole Foods

Incorporate foods high in nitrate into your daily menu. Nitrate is converted to nitric oxide (NO) in the body. Increasing NO availability in the body helps to increase blood flow and may also stimulate collagen synthesis. Foods high in nitrate include: leafy greens, spinach, beets, celery, and arugula.

Calcium + Vitamin D

When bone injury is involved, eating and drinking enough calcium and vitamin D is an important consideration. A common recommendation is three servings of a dairy food high in these nutrients each day to help maintain the level in the body. Non-dairy sources fortified with calcium and vitamin D are an option for those who do not consume dairy, but be aware that not all non-dairy milks are fortified. Be sure to shake the container of fortified non-dairy milks so the fortified nutrients don't go out in the trash.

Collagen + Vitamin C

Collagen is the most abundant protein in the body and is found in tendons, ligaments, and cartilage. Consuming collagen powder mixed into your pre-workout beverage will help stimulate the repair of these tissues. For optimal results, consume twenty grams of collagen and fifty to one-hundred milligrams of vitamin C sixty minutes before exercise, especially weight-bearing exercises, such as wall-sits. The activity can be as short as ten minutes and body weight alone can be sufficient in making this a great combo before physical therapy. Collagen is easily



dissolvable and is best supplemented in the powder form for correct dosing. Unflavored versions are undetectable when added to most beverages and foods.

Creatine Monohydrate

Creatine is a safe and effective organic compound (kind of like a protein because it is made up of three amino acids). It is found in muscles and can help preserve muscle mass and improve body composition. You can find Creatine in many foods, including: beef, chicken, milk and cheese, but the amount is low and supplementing is helpful. Start with five grams four times per day for five to 7 days. Then, reduce to three to five grams per day to maintain the level. It has a slight bitter taste but can blend well into smoothies, protein shakes, oatmeal, and yogurt.

Injury isn't ideal but it is an opportunity to build strength, learn new exercises, optimize your diet, and come back more knowledgeable and stronger. The Dietitians at Tahoe Forest Center for Health are here to support you return to training and an active lifestyle. In addition, Tahoe Forest Orthopedics has partnered with the Center to bring you Ortho Nutrition Lunch hour every non-holiday Monday at noon via Zoom. The class is offered free of charge. To register, call Tahoe Forest Center for Health at 530-587-3769 or email centerforhealth@tfhd.com to receive the Zoom link.