



CU SPORTS MEDICINE  
**Nutrition for Healing**

You've been injured or will be having surgery. Now you must prepare your body for the healing process ahead. Your body needs carbohydrates, protein, fat, vitamins, minerals, and water (called "nutrients") to support the repair process. Here are a few tips to speed your recovery and make things a little easier to handle.



**How many calories should I be consuming since I will be inactive?**

Now is NOT the time for weight loss! When people are immobilized, they worry about gaining weight. However, you should NOT decrease your calorie intake because you will be inactive. In fact, your calorie needs are now *greater* than usual. Your body requires energy from nutritious foods to fuel the healing process. You will need to consume about 15 to 20 calories per pound (using your current body weight). If your overall energy and protein needs are not met, body tissues such as muscles and ligaments will begin to break down. This slows healing and may prolong your recovery period.

**How much water should I be drinking?**

Normally, it is important to drink at least 8 cups of water or non-caffeinated, non-alcoholic beverages every day. If you do not drink this much fluid each day, *now* is the time to get into the habit. Drinking enough fluid is essential for maintaining adequate hydration and allowing your body to heal. You may need more fluid depending on the type of medication you are taking or the extent of your injury. Don't wait until you're thirsty. By then, you're already dehydrated! Have a water bottle handy and plan for plenty of refreshing beverages throughout the day to keep your body in fluid balance.

**What types of food should I be eating?**

Eat well-balanced meals and a wide variety of foods to obtain all the nutrients your body needs for tissue repair. Your body requires more protein and calcium during this time. Take careful note of the daily recommendations and food sources listed below. Compare your diet with the food pyramid to see if you're meeting your daily nutrient requirements. (Ask for a handout on the food pyramid if you are not familiar with it.) Consider taking a multi-vitamin and mineral supplement if you do not get the recommended balance of foods each day. Cut back on junk food! You want most calories to be packed with nutrition value!

Here are a few essential nutrients that your body will need before and after surgery or injury:

Nutrients	How It Helps Your Body	Found in these Common Foods
Protein	Healing, tissue repair, and re-growth	Meat, poultry, fish, eggs, milk, cheese, legumes (dried beans such as kidney beans, lentils, chick peas), soy products, nuts, and seeds

<b>Nutrients</b>	<b>How It Helps Your Body</b>	<b>Found in these Common Foods</b>
Carbohydrates	Energy for healing and preventing protein and muscle breakdown	Fruits, vegetables, legumes (beans), breads, cereals, rice, pasta, grains
Lipids (Fats)	Absorption of fat-soluble vitamins, immune response, energy	Oils (e.g. olive, canola, sunflower), nuts, seeds, avocado, salad dressings, margarine, butter

<b>Vitamin or Mineral</b>	<b>How It Helps Your Body</b>	<b>Found in these Common Foods</b>	<b>How Much Needed per Day</b>
Calcium	Builds and maintains bones and muscle contraction.	Milk, cheese, yogurt, soy products, turnip and mustard greens, collards, kale, broccoli, almonds	1,500 mg
Iron	Needed to form hemoglobin and carrying oxygen	Liver, lean red meat, poultry, fish, iron - fortified cereals, legumes, dark leafy greens, dried fruits <b>**best when eaten with vitamin C rich foods</b>	18mg men 15mg women
Zinc	Helps in wound healing, component of enzymes	Meat, liver, eggs, oysters and other seafood	15 mg
Vitamin A	Helps in wound healing and growth, maintenance of skin	Carrots, sweet potatoes, dark yellow or green leafy vegetables (i.e. spinach and broccoli), milk, cheese, liver, egg yolk	5,000 IU
Vitamin D	Helps in bone healing and calcium absorption	Fortified milk, butter, margarine, fortified cereals, liver, fatty fish (salmon), egg yolk	400-800 IU
Vitamin E	Antioxidant and disease-fighting properties ( <b>Do NOT take supplements before surgery</b> )	Vegetable oils (e.g. corn or sunflower), beef liver, milk, eggs, butter, green leafy vegetables, fortified cereals	30 IU
Vitamin K	Helps wound healing response and blood clotting	Green leafy vegetables, fatty fish, liver, vegetable oils	80 microgram men 65 microgram women
Vitamin C	Builds connective tissue, essential nutrient for healing	Citrus fruits, strawberries, tomatoes, peppers, greens. raw cabbage, melon	60 mg

**Are there special recommendations for patients having surgery?**

- Increase your calcium intake to 1,500 mg/day, especially if your surgery or injury involves bone.
- Do NOT take *vitamin E supplements* 7 to 10 days before your surgery.

- Be sure to meet your daily protein needs (about 6 to 12 ounces per day). Several factors such as weight, activity level, and type of injury affect your individual protein requirements. You may want to consult a dietitian for more information.
- Avoid weight loss or crash dieting before and after surgery to ensure adequate nutrients and energy for recovery.
- Eat well-balanced meals to lower the risk of infection after your surgery. Vitamin C, zinc, and vitamin A are especially important in preventing infections.
- If you lose your appetite for a day or two after surgery, nutrient-rich drinks or shakes can help you get enough nutrients and calories. Carnation Instant Breakfast™, Ensure™, Boost™, and Sustacal™ are good choices.

**Now that I have limited mobility, what can I do to make life a little easier?**

If you have been injured ask for help with these suggestions, or plan ahead if you know you are going to have surgery.

- Make sure you have plenty of water, juice, milk, or other drinks available.
- Prepare food ahead of time and place in the freezer to be reheated later.
- Consider stocking up on healthy low preparation foods such as fruit, pudding, yogurt, low-fat frozen dinners, canned or instant soups, instant cereals, shredded cheese, pull-top tuna, or other canned foods.
- Make sure you have a variety of take-out menus if you plan to have food delivered to your home.
- If you're on crutches, realize that carrying food will be hard for you. Small milk cartons, juice boxes, or water bottles may be helpful instead of having to carry a glass.
- If your arm is or will be in a sling consider buying precut food or individual servings of food. You may also want to practice before surgery doing daily tasks with your opposite hand.