

# Surgery Recovery

***This resource is for education and informative use only.*** The resources listed in this guide are not intended to be fully systematic or complete, nor does inclusion here imply any endorsement or recommendation by Goodyear Chiropractic Health Center, S.C. GCHC makes no warranties, express or implied, about the value or utility for any purpose of the information and resources contained herein. It is not intended to treat any medical conditions or give specific condition recommendations. If you have specific questions of ***which supplements*** would benefit you and ***/or dosage most appropriate for results*** to your goals, please consult a health care provider well trained in functional medicine and experienced in supplemental therapies. Products classified as dietary supplements are not required to meet any Food and Drug Administration (FDA) standards. There are no regulations that guarantee the safety or purity of something sold as a supplement. Therefore, supplements are not: Required to meet the same safety requirements as over-the-counter or prescription drugs or food ingredients, Held to specific manufacturing standards, Guaranteed to meet product potency or purity ratings. Because of this we highly recommend you do your research on the product company's standards and quality of their products before purchasing. Remember, generally, with supplements you get what you pay for... cheaper isn't better. For more information see our nutrition and supplement counseling services available and experienced providers certified in functional medicine.

Undergoing surgery generally places large amounts of stress on the body, especially on the immune system. Surgery unavoidably causes inflammation and edema (fluid retention) at the site of the surgery.

***The following therapies may accelerate recovery from surgery:***

## **Arginine:**

High-dose arginine used during the period immediately after surgery helps to reduce hospital infections and accelerates the healing of surgical wounds.

In patients recovering from surgery, arginine (12.5 grams per day) improved immune function in hospitalized patients. Benefits include improved T-cell counts, lower infection rates, and shortened hospital stays.

Dosage: 12,500 mg per day.

## **RNA: (Ribonucleic Acid)**

Supplemental RNA may be useful for persons who undergo surgery. Several studies have shown that RNA (administered during the early postoperative time period) improves post-operative immunologic responses and accelerates the recovery from the suppression of the immune system that occurs after surgery.

Dosage: 500 – 2,000 mg per day.

## **Grape Seed Extract:**

Grape seed extract reduces the edema (fluid retention) that occurs after surgery. This effect occurs from the OPCs content of grape seeds improving the structural integrity of blood vessels.

In a clinical study, OPCs from grape seeds reduced the time taken for post-surgery edema to disappear by an average of 4.5 days.

Dosage: 150 – 300 mg per day.

## **Vitamin A:**

A clinical study found that high-dose vitamin A supplementation for seven days prior to surgery prevents post-surgery suppression of the immune system (such as decreased white blood cells count). In the study, T-cell counts increased in vitamin A-treated patients but fell in patients not receiving vitamin A.

Dosage: 25,000 IU per day.

## **Vitamin C:**

The healing process following surgery causes significant depletion of the body's vitamin C reserves, to the extent that many persons are deficient in vitamin C after surgery.

Vitamin C helps to accelerate the wound healing process following surgery and helps the body to withstand the stress associated with surgery.

A clinical study found that vitamin C helps to prevent excessive bleeding after surgery.

Dosage: 1,000 – 3,000 mg per day.

## **Vitamin E:**

Surgery generally initiates the production of large amounts of dangerous free radicals. Vitamin E's role as an antioxidant helps to "quench" these surgery-induced free radicals. Surgery increases the likelihood of vitamin E depletion.

Dosage: 400 - 800 IU per day.

## **Vitamin B1:**

In a clinical study, vitamin B1 injections commencing prior to surgery were found to reduce the stress associated with surgery (measured in terms of levels of the stress hormone, cortisol).

Dosage: 50 – 500 mg per day.

### **Ginger:**

Several clinical studies have shown that ginger, taken immediately prior to surgery, reduces the nausea and vomiting that often occurs after surgery, by more than 50%.

Dosage:

500 - 3,000 mg per day (using ginger capsules or tablets).

0.5 - 3 ml per day (using ginger 1:1 fluid extract).

1 - 6 ml per day (using ginger 1:2 fluid extract/tincture).

2.5 - 15 ml per day (using ginger 1:5 fluid extract/tincture).

### **Curcumin:**

A clinical study found that curcumin (the active principle in turmeric) reduced the inflammation that occurs following surgery. Curcumin also facilitates wound healing following surgery.

Dosage: 900 – 1,800 mg per day.

### **Vitamin B5:**

Vitamin B5 facilitates the healing of wounds following surgery and counteracts the stress and fatigue that occur following surgery.

Dosage: 250 - 2,000 mg per day (using the pantothenic acid (calcium pantothenate) form of vitamin B5).

### **Serrapeptase:**

In a clinical study, serrapeptase reduced post-operative swelling and inflammation by 50% in patients who had undergone ankle surgery. Serrapeptase treatment caused patients to become pain-free more rapidly.

Dosage: 30 mg per day.

### **Bromelain:**

Bromelain has been shown in a clinical study to reduce post-operative swelling, edema (water retention) and inflammation in surgery patients. It also reduces pain following surgery and reduces the need for painkillers following surgery.

Dosage: 500 – 2,000 mg per day.

Bromelain treatment for surgery patients may be more effective when bromelain is used in conjunction with the enzyme trypsin.

### **Fish Oils:**

Consuming fish oil prior to surgery helps to minimize the inflammation that occurs during and after surgery, reduces the risk of infection after surgery and shortens the duration of hospital stays after surgery.

These effects are attributable to the omega-3 fatty acids content of fish oils.

Dosage: 10,000 mg (10 grams) per day for fish oils products containing 18% EPA and 12% DHA. This dosage level would provide 1,800 mg of EPA and 1,200 mg of DHA per day.

### **OKG: (Ornithine Alpha-Ketoglutarate)**

In a clinical study, elderly patients who received OKG while they recovered from surgery experienced improved appetite, weight gain, muscle growth, reduced need for medical care, and improved quality of life. OKG also facilitates the healing of wounds.

Dosage: 10 grams per day.

### **Germanium:**

A study conducted on dogs found that germanium (administered on the day prior to surgery) helped to prevent the suppression of the immune system that occurs following surgery.

Dosage: 150 - 450 mg taken on the day prior to surgery or for several days prior to surgery.

### **Zinc:**

Most patients are found to have low blood zinc levels following surgery. This depletion of zinc increases the risk of post-surgery complications. Zinc facilitates the healing of wounds following surgery.

Dosage: 15 – 50 mg per day, prior to and after surgery.

## **Product Recommendations**

At Goodyear Chiropractic Health Center, we offer only the highest quality nutritional supplements. The brands we offer are formulated with the highest regard for safety and efficacy with the highest quality ingredients and standardized extracts for best absorption and consistent results. Some of the brand names we offer are ***Advocare, Metagenics, Nutrition Dynamics, Optimum Nutrition, Standard Process, and Nutrina.***

**Be sure to discuss nutritional supplementation with your health care provider, especially if you have a health condition or are currently taking medication.**

***Maintain a healthy Lifestyle***

Make sure that you're eating a sensible diet, training regularly and intensely, staying well hydrated, and getting at least 7 hours of sleep every night. Protein provides the building blocks, but even the best sources won't build new muscle without the proper stimulus and **consistency!**

**For more on why nutritional supplements are an important part of healthy eating, schedule your nutrition consult.**