

Surgery Protocol

The core of this protocol comes from Dr. Alan Gaby's excellent new textbook, *Nutritional Medicine*, 2011. In general, nutrients should be taken 30 days before and 30 days after a surgery. It takes time to build nutrient reserves and for healing to take place. The dosages of following nutrients are for a 160 pound person; they can be adjusted accordingly.

ProMulti-Plus® 2 capsules, three times per day. This full spectrum multi-vitamin/mineral will act as a foundational supplement. Many trace minerals and nutrients are needed for tissue repair and wound healing. **ProMulti-Plus®** will provide many of them as well as the co-factors necessary for the higher dose nutrients below to work more efficiently.

Bio-C Plus 1000™ 1 tablet, three times per day. Vitamin C is known for wound healing and healthy scar formation. It is also one of the major antioxidants and is necessary to regenerate other oxidized antioxidants. In general, large doses of vitamin C (over 1,000 mg per day) should not be given 12-24 hours prior to surgery as it may interfere with anesthesia.

Additional Vitamin C Note:

Mixed Ascorbate Powder™ may be used if the number of daily capsules becomes a problem or if additional vitamin C is required. Each rounded teaspoon provides 2,700 mg of vitamin C as well as calcium and magnesium ascorbate. Too much vitamin C will cause diarrhea. Personally if I was going for surgery, I would use the Ascorbate C Calibration Test to determine maximum levels of vitamin C and take those levels 30 days before and 30 days after surgery and abstain from vitamin C 24 hours before the surgery.

Zn-Zyme Forte™ 1 tablet, twice a day. Zinc plays a role in wound healing through its effects on nucleic acid and protein synthesis and also enhances immune function. Zinc deficiency results in impaired wound healing in animals and humans. Because Western diet is borderline low in Zinc, post operative foods are low in zinc and increased zinc is needed for tissue healing. Zinc is one of the critical pre and post nutrients. If possible use the zinc taste test to assess and build compliance.

Bio-FCTS™ 1-2 capsules, three times a day. **Bio-FCTS™** provides bioflavonoids from buckwheat, green tea and citrus as well as quercetin, additional vitamin C, neonatal thymus and spleen issue. Bioflavonoids help build tensile strength and collagen as wounds heal.

Bio-Ae-Mulsion Forte® 2 drops per day. Each drop contains 12,500 IU. In some cases take 4 drops per day for a week and 1-2 weeks after surgery. Pregnant women should limit their vitamin A dosage to 10,000 IU per day.

Optimal EFAs Caps® 2 capsules, three times a day or 1 tablespoon. Dosing can be safely utilized up to 4 tablespoons per day; and in emergencies, 8 tablespoons has been used by the formulator of the oil Dr. Alex Vasquez DC, ND, DO.

Intenzyme Forte™ If gut stitches are not present use Intenzyme forte 10 tablets as soon as possible after the wound occurs and then 5 tablets, 4 times a day on an empty stomach for 3 days. After 3 days continue on 3 tablets three times a day on an empty stomach until the wound is healed.

If gut stitches are present use **Bromelain Plus™** instead of **Intenzyme Forte™** as suggested above. Note: some studies show greater effectiveness if given before injury i.e. boxing, football, to raise tissue levels and promote natural drainage. Since surgery is a predictable injury, I would personally take 5 tablets three times a day between meals 4 days before the surgery.

Liquid Iodine Forte™ apply to the incision with a cotton swab 2 times a day to prevent infection.

Specialty Surgeries

CoQ-Zyme 30™ 1 - 2 tablets, 3 times per day for any heart surgery.

L-Glutamine Powder 1 -2 tsp in a protein drink like **NutriClear®**, 2 Tbsp for abdominal surgery.

Consider asking the physician to administer Thiamine and Magnesium intravenous if postoperative confusion delirium are present in the hospital.

Honey can be applied to wounds that are not healing properly.

Blood test should ideally be done to assess nutrient depletion allowing 4 weeks of supplementation prior to surgery: Red Blood Cell, Magnesium, Iron, Hemoglobin, Homocysteine, CRP, Serum Ferritin, and Anion Gap (sodium and potassium less Carbon Dioxide and Chloride, supplement with **Bio-3B-G®** with levels above 14; 2 tablets every hour for 10 days and 3 tablets, three times a day thereafter).