PERI-OPERATIVE OPTIMAL SURGICAL CONSIDERATIONS

READERS SUMMARY:

What might you consider pre and post op before your surgery?

These all need to be cleared with your surgeon before starting!

In an ideal situation, patients undergoing surgery will have adequate time before the operation to prepare themselves emotionally and physically. This preparation will likely include dietary supplementation, as well as mental and emotional preparation. The healthier patients are when they go into surgery, the healthier they are likely to be during the postoperative phase. If they are a progressive patient suggest some brain training pre-op with biofeedback or transcendental meditation. It has an amazing effect of decreasing the need for post-op narcotic pain meds for pain control. The fewer pain meds one takes, the fewer complications one will face too. It also will not induce post op hormone changes.

I also recommend that patients with poor glucose control discuss intensive insulin therapy with the surgeon before surgery. Specifically adding 500 mgs of reservatrol for 2 weeks prior to and after the surgery can cut insulin needs as well. Studies indicate that surgery-induced insulin resistance, leading to elevated glucose levels during surgery, raises the risk of complications and death. Intensive insulin therapy, a procedure in which glucose levels are closely monitored during surgery, can help reduce complications and lower the risk of death (van den Berghe et al 2001). The recommended glucose range is between 80 mg/dL and 120 mg/dL.

However, this practice is not standard in hospitals and requires intensive administration from nurses and other members of the surgical team. Nevertheless, because of the benefits, patients may want to discuss intensive insulin therapy with their surgical team to see if it is warranted. Ironically, my own hospital won't follow through with my recommendations via the pharmacy so I have to do this for each one of my patients individually as we talk about perioperative care. I handle this best by trying to solve their diabetes before I operate on them if they are willing to do the things needed for success.

I also advocate bagging the body part that is going to be physically cut by the surgeon with ice packs for 45 min to an hour a day two weeks prior to surgery. If this is a fusion operation the cold also induced BMP-7 and BMP-2 to form bone more easily. Cold thermogenesis actually is a great treatment for osteoporosis. It is hard to do this on frank osteopenic because they have high omega six tissue levels, and most cannot handle the cold acutely unless they listen to me pre-op. Sadly, few do in my experience.

If the sun is out, try to get that body part being cut on in the sun to raise the tissues melatonin level to improve mitochondrial biology for recovery. I give my own patients specifics based upon their work up with me.

I also think you need to turn off all lights in your environment as soon as the sun sets two weeks prior to surgery and not use LED or artificial light products at all. I asked them to consider using eye masks when they sleep. Extra steps are to consider cooling mattress pads to sleep on pre and post op are great ideas. I also advocate using sleep domes that produce calming sounds to bring upon the onset of sleep faster. I also want them to bring it to the hospital if they buy it to use. I tell them all that I want them out of the

hospital fast because it is among the worst environments to sleep in because of the artificial lights, noises, and constant waking up from the staff to do vitals and other things that the hospital makes the nurses perform upon patients.

I also asked them to double their use of Vitamin D3 and DHEA two weeks prior to surgery, if they are on these meds. The same is true for progesterone or pregnenolone. If they are going to be an inpatient in the hospital more than one night, I want them to bring their DHEA, Vitamin D3, pregnenolone, progesterone and estrogen with them in case I decide to dose it post op. We do not need testosterone because we can dose that IM for men. For women with patches, we ask them to bring them to the hospital. IF there are other regimens they are on, I tell them to bring their supplements to the hospital. I also tell the family to bring good food from home and avoid the hospital food like the plague! If you eat it you will have more pain postoperatively and you will be more likely to come back to the hospital for some other neolithic disease in the future.

Patients may also want to discuss aspirin therapy before surgery. Aspirin is a well-known antiplatelet that is used for prevention of heart attack and to mitigate the damage of ongoing heart attacks. Me, I like the combo of fish oils and reservatol better because most of the surgeries I do use bone and grafts and aspirin inhibits the formation of bone post op. So I don’t recommend any NSAIDs or aspirin for that reason. If however, I am not doing bone grafting or brain surgery I am OK with aspirin. Some studies have suggested that aspirin therapy may benefit certain patients before surgery, especially heart patients and those undergoing carotid endarterectomy (Mangano DT 2002). However, because aspirin affects the blood’s ability

to clot, no surgery patients should begin aspirin therapy unless under the direct supervision of their surgical team.

Other nutrients might also be helpful before and after surgery that I use often depending upon the case:

EPA/DHA (1400 milligrams (mg) EPA and 1000 mg DHA daily (for DDD/DJD I add 500 mgs of Krill oil too for some based upon context)

Arginine (3000 to 12,000 mg daily (in three divided doses for one-month post-op)

Glutamine (1000 to 3000 mg daily depending upon the surgical wound

Vitamin C (2000 to 3000 mg daily (start before surgery 7 days and end 14 days later)

Vitamin E (400 international units (IU) daily (with at least 200 mg gamma tocopherol)

Vitamin A (25,000 IU daily (7 days post only) (I like the use of liver more)

Alpha-Lipoic acid (150 to 300 mg daily (start 2 weeks prior to surgery and go one month after)

CoQ10 (300 mg daily (older patients and bigger cases I use a higher dose)

Zinc (30 mg daily

Melatonin (300 mcg to 10 mg, usually taken before bedtime; begin with the smallest possible dose (only meant for 7 days post op)

Curcumin (800 to 1600 mg daily, 500 mgs of trans-resveratrol a day for one-month post surgery

Fat/Protein (derived from unprocessed grass fed whey) (up to 60 grams (g) daily

Importantly, the surgeon should be aware of any dietary supplements that are consumed. **Some supplements, such as vitamin E, Krill and Fish oil, Ginkgo biloba, increase the risk of bleeding during surgery. Many physicians will recommend that patients discontinue these supplements up to 14 days before surgery**. Some surgeons ***will not recommend this*** because of their experience with the supplements is deep in surgical patients. I have this experience so I look at this a lot differently than most surgeons.

If you are having any back surgery you need to make sure two weeks pre-op you drink 1-1.5 gallons of non fluoridated polar water daily. I would also make sure your vitamin D level is stout at 70-100 ng/dl and you should consider getting your skin into the sun if you’re in the summer or spring months pre-op. When I get to EMF-7 you’ll see why the photoelectric effect is important for surgical healing.