

PRE-OP PREPARATION

(Excerpted, added to, and edited from Neil McKinney's Naturopathic Oncology textbook)

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Flaxseed 25-30 grams daily for one month pre-op reduces tumour aggressiveness and Ki67 activator protein. Grind fresh at least every 2 weeks and store flaxseed meal in the fridge. Green tea extract will also reduce Ki67.

Reduce metastasis risk with **PectaSol-C brand standardized modified citrus pectin** MCP 1.5 scoops or 9 capsules twice daily. The lime version is easiest to mix in water. The plain version can be mixed into a strong herbal tea like Good Earth Sweet and Spicy. Either way, add to liquid and let sit for 10 minutes before whisking. When near the bottom of the glass, whisk again to get the rest of the MCP from the bottom.

Modified or fractionated citrus pectin, and larch arabinoglycans, work like putting flour on Scotch tape - mets can't stick to other cells, and if they cannot attach to the vasculature walls they cannot invade and if they cannot anchor the mitotic spindle for cell division, they cannot grow. ***Start the day before your surgery or biopsy procedure, and continue for up to 6 months, then review.*** MCP is good long-term for reducing risk of metastases.

EGCG (green tea extract) also helps reduce risk of metastases from surgery. ***Take a 500-700 mg capsule 3 times daily for about 2 weeks if possible, but stop at least 3 days pre-op.*** Both MCP and EGCG help to regulate the natural tissue repair systems, which unfortunately can stimulate growth in occult micro-metastases or any residual tumour. These cell growth factors include vascular endothelial growth factor VEGF and matrix metalloproteinase MMP-9.

Avoid for a week all herbs and supplements which interact with sedatives and anaesthetics: St. John's Wort *Hypericum perforatum*; valerian root *Valeriana officinalis*; kava kava *Piper methysticum*, ginseng *Panax ginseng* and *Panax cinquefolium*, skullcap, passion flower, hops, melatonin, inositol, GABA and 5-hydroxy-typtophan 5-HTP. Avoid ephedra herb as it increases sympathetic nerve tone. Avoid citrus, licorice root and lindera as they increase blood pressure. Avoid peony root, milletia, *Gingko biloba* - ginkgo leaf, and high-dose niacin or niacinamide as they dilate peripheral blood vessels.

Avoid for a minimum of 3 days pre-op natural medicines which can cause bleeding or clotting issues: garlic *Allium sativa*; ginseng root *Panax ginseng* or *Panax cinquefolium*; bromelain; vitamin K, salvia, rehmannia, ligusticum, ginger, curcumin, atracylodes, carthamus, reishi, cordyceps, Co-enzyme Q-10, resveratrol, green tea EGCG extract. Vitamin E can be a risk to about 10% of the population, if taken in high doses ie over 800 IU daily. Vitamin C intake should not exceed 3 grams or ½ tsp daily.

Homeopathic surgery mix - 6C potency homeopathics *Hypericum*, *Staphysagria* and *Arnica* – this formula was created by Dr. Andre Saine, ND, naturopathic homeopath. Being a classical homeopath, he dispensed them separately, but Dr. McKinney suggests mixing them in one bottle. *Hypericum* treats nerve injury and pain, *Arnica* helps relieve trauma, edema, inflammation, and *Staphysagria* deals with the injury at an emotional and mental level. ***Start this the day before your procedure.***

Wound healing support: **vitamin C** - 2,000 mg, **zinc citrate** - 60 mg; **vitamin A** 10,000 + IU daily; high protein - which might include a whey protein or pea protein powder - 1 ounce (30 grams) twice daily. It is mandatory in cases with recent poor nutrition due to poor appetite, or mechanical issues such as oral or gastro-intestinal tumours. Start these supplements 2 weeks pre-op if you have been nutritionally compromised.

If the patient has a low immune status, post-shower skin application of chlorhexidine for a few days lowers risk of surgical infection. Reduction of the skin biofilm reduces risk of skin *Pseudomonas* growing in a wound.

Mind-Body. Visualize success and *feel* the benefits you are going to receive. If you can worry about side effects and problems, you can visualize something better happening. Let it be like sunshine chasing away all your shadows. A positive attitude appears to make a real difference in outcome - less pain, less complications, faster healing, etc. Use the pharmacy in your head to create healing conditions. Guided meditations are available online and can be found easily with Google search. One popular meditation is by Belleruth Napparstek.

POST-OP PROTOCOL

Take **PectaSol-C modified citrus pectin** - 9 capsules or 1.5 scoops twice daily 30 minutes before meals to control inflammation and cancerized stem cell formation. Green tea catechins (EGCG) also reduce adhesion and scars. Support green tea extract with γ **Vitamin E** as mixed tocopherols 400 IU daily to protect kidneys and liver. (*Note: do not take vitamin E with chemotherapy or natural oxidative therapies like vitamin C IV and ozone.*)

Surgery is very immunosuppressive. This is the time for homeopathic, nutritional and herbal support for the immune system - *Engystol*, *Thymuline*, *Graphites*, *Thuja*, **vitamin A**, **vitamin C**, **zinc citrate**, cat's claw, Reishi mushroom (make sure mushrooms are log grown not grown on grain media). A great supplement if you can access it is Natura Health Products Immucare. Support wound healing with **zinc citrate** - 30 mg twice daily with food; **vitamin A** - 3,000 I.U. daily; and **vitamin C** - 1000 mg. 3 times daily, or get these nutrients by sufficient intake of fresh and raw fruits and vegetables. Deep wounds such as from punch biopsies can be filled with a sugar paste, which sterilizes while it promotes granulation tissue. Vulneraries /wound healers: calendula - marigold flower, chickweed, comfrey leaf.

Ferdinand Sauerbrach, a thoracic surgeon, has demonstrated improved surgical wound healing and increased resistance to infection with a **salt-restricted diet**. Again, continue this until all wounds are completely healed.

Reduce pain, edema and blood clot risk with **bromelain** - 100 mg. 2 to 3 times daily, away from protein foods, plus **curcumin (C3 formula)** and **Quercetin** 2 -3 times daily. Ramp up physical activity as soon as possible. For problems with anaesthesia give *Phosphorus* 30C.

Prevent adhesions and excessive scarring with **serratiopeptidase** between meals, **catechins** 500 mg. 3 times daily, **gotu kola** - *Centella asiatica* - yielding 50 to 100 mg of triterpenic acids. Once the incision has closed, use topical **Rosa mosqueta** (Rosehip) cream to reduce scars and keloids. **Aloe vera** leaf gel increases wound strength, flexibility on healing, decreases scars and reduces risk of metastasis. Consider also **silicone gel**, emu oil and injection therapy for scars. 50

Probiotics are good bowel bacteria, essential to good health, and often diminished by stress and antibiotics. If you have a bout of diarrhea after surgery, take a capsule of enteric coated mixed bowel bacteria 2 to 3 times daily, away from food, for up to 2 months. Also include a capsule of *Saccharomyces Boulardii*. Bismuthiols and silver help restore gut biofilms, which supports immune competence. Probiotics synergize.

Prebiotics help grow good bacteria in the gut. And one scoop of prebiotic fiber such as modified guar gum or Acacia root to smoothies daily.

N-acetyl-cysteine can help clear anaesthesia drugs to restore normal brain function.