



WELLNESS RECOMMENDATIONS

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FOR: MELISSA DESA

SUMMARY OF CONCERNS

Your primary concern is a diagnosis from your physician(s) of apparent metastatic sarcoma/small round cell tumor of unknown type. Your main goal is to maintain best possible health through a challenging treatment and dealing with the cancer. I am also hoping to be able to provide support for any side effects that you experience during whatever treatments you pursue.

SUMMARY OF RECOMMENDATIONS

You have a very healthy diet and lifestyle and a very good health baseline. You have good practices in place for dealing with stress. These are very positive factors when faced with a cancer diagnosis. The herbalist's main contributions during cancer chemotherapy treatment can be to protect your healthy cells, help prevent inflammation, soothe side effects, and provide support for a healthy recovery.

- Support general nutrition and assimilation of nutrients (foods and food-based supplements)
- Help with adaptation to extreme stress (adaptogens, nervines)
- Prevent general cell damage (antioxidants, esp during chemo)
- Prevent inflammation (anti-inflammatories, esp during chemo)
- Protect/preserve healthy bone marrow and blood cells (blood- and marrow-building strategies, esp during chemo)
- Provide support for side effects (ongoing, must communicate when side effects happen)

These recommendations are in order of importance, so start at the top and work down the list to incorporate the changes into your life. I have tried to select reasonably priced products that should be available at local health food stores or easily ordered from iHerb, Vitacost, or local stores. I don't want you to be overwhelmed, but do want you to pursue protective measures ASAP. We can talk in the next week to make sure everything is going well, and then have ongoing follow-up as needed, especially if/as you need support for side effects.

BASIC SMOOTHIE RECIPES

You can adapt these two basic recipes as needed or desired. The key elements are the whey protein (this is assuming that you are OK with dairy foods) and the coconut oil and/or nut butters (for their fat content).

1 cup berries
1/2 cup coconut milk or milk
1/4 cup kefir or yoghurt
1-2 Tbsp tahini or other nut butter
1 scoop Natural Factors (or other brand) plain whey protein
1 to 2 Tbsp coconut oil
1/2 to 1 teaspoon L-glutamine powder

1/2 to 1 cup coconut milk or milk
1 to 2 Tbsp coconut oil
1 Tbsp cod liver oil
1/2 to 1 banana
1/2 cup berries (or 2 apricots or 1/2 cup mango chunks)
1 scoop plain whey protein
1 to 2 cups spinach, kale, other greens (optional, cooked better)
1/2 cup nuts or 1/4 cup nut butter (optional)
1/2 avocado (optional)
1/2 to 1 teaspoon L-glutamine powder

WELLNESS RECOMMENDATIONS for Melissa DeSa: Please talk to me about any questions you have or suggestions for alternatives or adjustments. None of these nutrients or herbs will interfere with chemotherapy drugs.

Recommendation	Dosage	Duration	Reasoning
General nutrition and assimilation of nutrients, support for healthy gut	Bone broths cooked ala Sally Fallon's "Nourishing Traditions" cookbook, ¼ to ½ cup per day; May substitute miso soup once or twice a week; Add seaweeds to broth if possible.	Ongoing, esp during chemo	Bone broths have all of the nutrients needed to build healthy blood and bone marrow. Bones should be cracked open when making broth so that marrow is incorporated. Make a large batch and freeze to store. This is something that your support network can help with.
General nutrition and assimilation of nutrients	Smoothie w/ whey protein, fat (coconut oil and milk), and L-glutamine (to aid digestion)	During chemo or when not feeling well enough to eat	Daily smoothies are easier to take when you are not feeling well. Including a good dose of protein and fat will help your overall nutrition during chemotherapy. (See basic recipes next page.)
Prevent general cell damage with antioxidants	Daily green drink with freeze-dried "green" powder and/or nettles. And brand. Use as directed. Good mixed with citrus juice. You may also enjoy green tea as much as you like and you could even add "Matcha" green tea powder to the drink if you like.	During chemo or when not feeling well enough to eat	Green drinks are easier to take when you are not feeling well. You can dissolve the green powder in any vegetable or fruit juice that appeals. I don't have a particular product to recommend. Find one that is organic, with nettles if possible. Freeze dried is better than "raw."
Basic antioxidant supplementation: ZACES	Z for Zinc: Take a handful of green pumpkin seeds daily (can add to smoothies) or supplement 25mg-50mg/day A for Vit A: 10,000IU/day, preferably from cod liver oil C for Vit C: Take 1,000-2,000mg/day in divided doses (to bowel tolerance=back off if causing loose stools) E for Vit E: 800IU/day, product with "mixed tocopherols" S for Selenium: Eat 10 Brazil nuts per day (can add to smoothies) or supplement 200mcg complex/day	Ongoing	ZACES are the basic antioxidant nutrients. Many people are deficient in Zinc and Selenium (especially since Florida soils are deficient). The Vitamins are essential for preventing chemotherapy damage. I like the Nature's Answer Cod Liver Oil: http://www.vitacost.com/natures-answer-liquid-norwegian-cod-liver-oil (may be available locally). Cod liver oil will also supply very good support for your Vit D levels, which is also an important anti-cancer vitamin. For Vitamin C, I like a food-based supplement, such as Rainbow Light. If you can't keep up with the seeds/nuts, here are affordable zinc and selenium supplements: http://www.vitacost.com/natural-factors-zinc-chelate and http://www.iherb.com/Life-Extension-Super-Selenium-Complex-100-Veggie-Caps/46682
Prevent inflammation	Gaia Brand "Turmeric Supreme" You can take any other brand of turmeric as long as it has some black pepper in the mix, which increases absorption by 400%. Take with a meal that includes some healthy fats to further promote absorption.	During and after chemotherapy	Simple turmeric is one of the best anti-inflammatories. You can take this supplement any time, but it will be especially helpful after chemotherapy when it feels like your blood is "on fire." http://www.vitacost.com/gaia-herbs-systemsupport-turmeric-supreme (available locally)
Help with adaptation to extreme stress and support immune system health	Adaptogenic and immune-supportive formula. Take as directed on bottle. This is called "Fu Zheng" therapy because it is modeled on Chinese therapies to support chemotherapy.	Throughout treatment	You should be able to order directly from H&A. Let me know if any problem and I can order for you (price is same either way). http://www.herbalist-chemist.com/item/David-Winston39s-Immune-Adapt-Caps-a-Fu-Zheng-Formula-1213
Support for nervousness, anxiety, and restful sleep	Gaia Herbs "Serenity" formula can be used during the day if nervousness or anxiety become an issue and also can be used before bed to promote restful sleep. Use as directed on bottle.	As needed	http://www.vitacost.com/gaia-herbs-systemsupport-serenity-with-passionflower (available locally)

Protect/preserve healthy bone marrow and blood cells	Dong quai (Dan gui) root herb. You can take capsules or tincture. Take as directed on bottle.	During and after chemotherapy with hemolytic agents	Dong quai (and Astragalus, which is already included in the adaptogen formula) are the best herbs for building blood. Here is one example of the tincture: http://www.gaiaherbs.com/products/detail/179/Dong-Quai-Root Foods that build blood and bone marrow include beets, liver, red meats, and bone broths.
Protect against cardiomyopathy	If cardiomyopathic chemotherapy agent is used, add cardio-protective antioxidants and nutrients: Alpha Lipoic Acid, CoQ10, Hawthorn herb. Take as directed on bottle(s).	During and after chemotherapy with cardiomyopathic agents	Preventing damage to the heart is important for long-term wellness. Add this formula if cardiomyopathic agents are being used: Foods that support the heart and circulation include all colorful foods (especially berries), beef heart (nice in a stew or pate), and the blood-building foods listed above.
Support for side effects	As needed, must communicate as side effects occur; Neuropathy and diarrhea are likely side effects of chemotherapeutic agents that were first prescribed. . .	As needed	Ginger root (candied or slices of fresh or even the dried spice) is an excellent anti-nausea agent. Strong black tea or raspberry leaf tea are helpful for diarrhea.
Support immune system health	Medicinal mushroom blend can be taken daily to support healthy and balanced immune response.	Ongoing	Any brand is fine. I like the Mushroom Harvest "14 Mushroom Blend" (capsules or powder): It's affordable and the powder doesn't taste too bad. . . just swallow a small spoonful before a meal or mix into soup or smoothie. http://www.mushroomharvest.com/ Gaia Herbs "Maitake Defense" is locally available.
Energetic, spiritual, and social support	You already know all of this, but just want to affirm that these things are helpful in living with cancer. Engage your social support network and ask for help when you need it. Incorporate visualizations into your yoga/meditation practice. For example, visualize your immune system attacking and clearing the cancer cells. More →	Ongoing	Engage in deep breathing a few times every day. Breathe into and expand the abdomen, hold for a count of 3, then expel the breath through the mouth (yoga breathing!). This oxygenates the blood and supports healthy lungs and immune response. If you want CDs to listen to during chemotherapy, check out Bellaruth Naparstak or Louise Hay for healing visualizations and use recordings of your favorite music.

ADDENDUM 1:

NOTES FROM CONSULTATION WITH JONATHAN TREASURE (HERBALIST) FOR MELISSA DESA

PREFERRED ALTERNATIVE APPROACH TO SARCOMA

- Tumor cell testing to explore drug sensitivity.
- Tumor cell testing for targeted therapies: Sarcoma often has an overexpression of Kinase enzymes (PDGF and VEGF as well as KIT). If present, Sunitinib/Sutent (dual kinase inhibitor) can be very helpful (oral drug, low side effects, can be taken long-term).
- Possible treatment via a restricted calorie diet (fasting or very-low-calorie for limited time) with DCA to elicit the Warburg effect, which changes the body environment and interrupts tumor cell glycolysis (glucose production) inducing apoptosis (cancer cell death)

CONSERVATIVE APPROACH TO CHEMOTHERAPY

- Give cytotoxins (chemotherapy drugs) empirically, that is, without knowing tumor cell sensitivity in advance.
- Ask doctors: What exactly is the protocol for monitoring success??? [Conventional approach often goes 3-4 cycles (3-4 months) without rescan. Radiological literature questions this approach, suggests looking at scans after 1 round of chemotherapy to assess response (compared to baseline). JT recommends having a very good (i.e., sensitive to detail) baseline scan, followed by a scan after 1 or 2 rounds to determine level of tumor inhibition. Tumor inhibition can certainly be seen after 2 cycles with a sensitive scan.
- Must insist on detailed scan before chemo, detailed scan after 1 or 2 rounds of chemo.
- Note that this chemotherapy regime is so toxic, that if there is no benefit, it will be intolerable to continue (intolerable = reduced quality of life).
- Caution against doing extra cycles if response is diminishing. Doctors tend to do this in the hopes of getting “just a little more” response, but performing extra cycles (after no response) just insures that the tumor cells will become resistant to the chemo drugs.

OVERALL STRATEGY RECOMMENDATIONS

- Chemotherapy is a tactic, but JT wants you to think about overall strategy.
- Overall strategy recommended: Use chemo poisons to get a window of reduction in tumors, then investigate (with cells studies) how to further reduce or eliminate this cancer with targeted therapies
- Note that if the big failsafe 5-drug chemo approach does not work, doctors become much more open to working with alternative strategies.

HERBAL/SUPPLEMENTAL SUPPORT TARGETS

During chemotherapy, the herbalist's main contribution is to protect your healthy cells, especially in the bone marrow, and also to help prevent inflammation and side effects through:

- Bone marrow protection/preservation
- Antioxidants to prevent cell damage
- Anti-inflammatories to prevent inflammation
- Adaptogens to help patient deal with extreme stress
- Support for side effects (ongoing, must communicate)

ADDENDUM 2:

JONATHAN'S NOTES FOR FURTHER CELL TESTING

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They may be doing some marker tests. They are unlikely to do chemo-sensitivity tests because they are not generally in the standard practice repertoire.

The independent labs for markers are Caris who analyze about 80 targets on preserved tumor material called Target Now.

#### Details:

Target Now is the commercial basic molecular profiling panel performed by Caris Life Sciences on tumor samples. The tumor tissue samples are best sent as fresh frozen material, but they can also use pre-existing preserved paraffin cell blocks. (These are normally stored at the institution which performed the original tumor surgery).

Target Now uses three different techniques (FISH, PCR for mRNA, and IHC) to evaluate about 80 different markers. Many of these relate directly or indirectly to drug sensitivity and resistance both for traditional DNA poisons as well as for targeted modern agents (Kinase inhibitors, MoAbs, etc).

Caris has a very helpful financial department who will determine if your insurance carrier will pre-approve their test procedure. Since the Target Now panel runs up to several thousand dollars, this is an important consideration.

Caris Target Now is at 1.888.979.8669 (TNOW) and their web site is <http://www.carislifesciences.com/contact-us>

In her case it might be possible to have "in house" analysis of the key markers for Sutent which are PDGF and VEGF as well as KIT.

Jonathan