**Nebulizing ALA, DCA**: Purchase injectable grade 50 mg/mL D-ALA (not DL-ALA, only use pure D-form!), and 250 mg/mL DCA. I sell these through my clinic dispensary. Always keep them out of the light as much as possible. Rent or purchase a nebulizer from a pharmacy. Use a 3 cc syringe to pull out the medicine from the rubber-top multi-dose vial, as described below. Pharmacies can provide syringes without a prescription, but most do not stock 3 cc syringes and will have to special order them for you. Always wipe the top of the vial with alcohol before putting away in the fridge, and keep it shielded from light just as much as you can. Mark the 5 mL fill line with a felt pen so it is visible from the inside, then wrap the outside with tinfoil or masking tape to exclude light. Put 1 mL of each medicine in the medicine cup of the nebulizer, plus sufficient sterile saline to make 5 mL total. Later we may increase the amount of medicines, but always top up to 5 mL with saline. Normal saline is 0.9% salt. Pharmacies sell vials of simple saline for nebulizing.

Turn on the pump and through a face mask or breathing tube breath in the medicine as a mist. Breathe normally. After about 10 to 20 minutes the medicine well will go dry and you’ll hear it sputtering. Turn off the nebulizer pump, and rinse everything off for next time. You can do this once or twice a day at home, it is about as effective as an intravenous drip, and a lot cheaper. In most cases we add DCA (dichloroacetate) 250 mg/mL with the D-ALA. We start with 1 mL of each medicine, plus 3 mL of sterile saline. Do not let stand long, as a precipitate can form.

**TRANSFERING MEDICINE FROM A RUBBER-TOP MULTI-DOSE VIAL TO NEBULIZER**

1. Start by cleaning the surface you will work on, then wash your hands.
2. Check the vial for any sediment or cloudiness by shaking it. Only use the medicine if it is completely clear and transparent.
3. Wipe the top of the vial with alcohol.
4. After removing the syringe from its wrapper, make sure the needle is securely attached to the hub of the syringe barrel. Twist it on firmly until it creaks a bit, otherwise they will often leak.
5. Pull back the plunger of the syringe to the volume you will be injecting – usually this is 1.0 mL to start. The doctor will tell you how much to take.
6. Put the needle gently into the soft central circle in the rubber top.
7. Hold the vial above the needle, and keep the needle tip in the liquid to avoid drawing up air.
8. Draw out a bit more liquid than you need.
9. Tap to bring bubbles to the needle hub area.
10. Push bubbles and excess liquid back into the vial, so the plunger is at the mL mark desired.
11. Pull out of the vial, with sideways pressure on the plunger to keep it locked in the syringe barrel.
12. *Wipe the top of the vial again with alcohol before returning it to the fridge*. Any residue left on the rubber top can grow bacteria and increase risk of contaminating the contents.
13. Check that the plunger is at the correct dose.
14. Put the medicine into the medicine cup/reservoir of the nebulizer.
15. Put the medicines back in the fridge and dark as soon as possible.
16. Put the breathing tube in your mouth or the mask on your face, turn on the nebulizer pump, and breathe normally until the reservoir is empty, usually 10 – 20 minutes.

For background on this metabolic approach to cancer see pages 79-185 of my book.

Synergistic with NFH brand **MITO-SAP** Rx 2-3 capsules twice daily at meals.