

**Excerpt from book by Dennis N Crouse** “Increasing IQ, Cognition and COVID-19

Cure Rate with Essential Nutrients: Targeted Detox Improves Children's IQ, ADHD

Behavior, and Adult Cognition” available on Amazon.

<https://www.amazon.com/stores/author/B01LFW4782/allbooks?ingress=0&visitId=1926>

[b091-9a40-4e40-ad1d-da4e7c5a7c9c&store\\_ref=ap\\_rdr&ref\\_=ap\\_rdr](https://www.amazon.com/stores/author/B01LFW4782/allbooks?ingress=0&visitId=1926b091-9a40-4e40-ad1d-da4e7c5a7c9c&store_ref=ap_rdr&ref_=ap_rdr)

**Table 31. Brain Savers. Nootropics, and Vitamin D3 in the Crouse Protocol**

Name	Amount per Day	Packing Company
OSA in Drinking Water	3 – 4 cups of 50ppm or more	See Appendix I
<del>L-selenomethionine</del>	100 – 200mcg	Pharma Nord, <del>Vitacost</del>
Vitamin B50 or B100 Complex	50 – 100mg B1, B3, B6	21 <sup>st</sup> Century, CVS
with Cyano-B12 Timed Rel.	+ 100mcg B12+400mcg folate	
Vitamin <del>Methylcobalamin</del>	500mcg – 1mg Methyl-B12	<del>Vitacost</del> , Thorne Research
Zinc	25 – 30mg	<del>NutraBio</del> , Nature Made
5-MTHF (Methyl Folate)	400mcg	<del>Jarrow</del> , KAL
TMG	500mg	<del>Swansons</del> , <del>Jarrow</del>
PQQ	20mg	<del>Bestvite</del> , <del>Nutricost</del>
CoQ10	400mg ubiquinone or	Nature's Bounty, <del>Solgar</del>
	200mg ubiquinol	<del>Qunol</del> , Now, Puritan Pride
Vitamin K <sub>2</sub> -MK-4 & K <sub>2</sub> -MK-7	5 – 15mg K <sub>2</sub> -MK-4 plus	Relentless Improvement, Carlson,
	60 - 90mcg K <sub>2</sub> -MK-7	<del>Jarrow</del>
Taurine	1.5gr (caps or powder)	Now Caps, Life Extension Powder
Lutein and Zeaxanthin	10 – 40mg Lutein	Carlyle, Now, Piping Rock
	1 - 5mg Zeaxanthin	
Vitamin D <sub>3</sub>	50mcg - 2,000 IU	Now

## **Augmenting with 5 Brain Savers**

With the help of numerous researchers having published clinical studies on humans, I had the data I needed to develop a protocol for my mother that reversed her declining MCI. The protocol includes augmenting her diet with brain savers to eliminate brain drainers and nootropics to enhance the vascular system, hippocampal neurogenesis, and mitochondrial biogenesis.

**Orthosilicic acid (OSA)** is the most important part of the protocol. It is recommended to daily drink 3 to 4 cups of greater than 49ppm OSA rich water for targeted aluminum detox (see appendices I, II, and III for sources of OSA). My mother has been supplied with Fiji water delivered to her door as her source of OSA and encouraged not to drink tap water. Fiji water contains less than 0.2ppm of fluoride<sup>820</sup> while in 2012 mother's tap water contained 1.0ppm.

**L-selenomethionine** augmentation is also important part of the protocol. My mother has amalgam fillings and is being constantly exposed to mercury. In addition, the elderly can boost their immunological system by augmenting with selenium for improved immunity to viral infection. It is recommended to augment daily with 100 to 200mcg of L-selenomethionine.

**Vitamin B1 (a.k.a. thiamine)** augmentation is important for enhancing lead elimination (see Targeted Detox of Lead in chapter 4). It is recommended to augment with vitamin B1 50 - 100mg for adults twice a day (morning and evening) or a prolonged or time-released B50 or B100 complex once a day.

**Vitamin B3 (i.e., niacin or nicotinamide)** augmentation is important for enhancing PCB elimination (see Targeted Detox of PCBs in chapter 4). It is recommended to augment with vitamin B3 as niacin or niacinamide 50 - 100mg/day prolonged or timed release as part of a B50 or B100 complex once a day.

**Zinc** augmentation is important for enhancing lead elimination with vitamin B1 see Target Detox of Lead in chapter 4). It is recommended to augment with 25 - 30mg/day as a chelate (see Section on Zinc Augmentation in Chapter 7). Note that zinc is also a nootropic as it is required

for enzymes that metabolize homocysteine to methionine for vascular health. Zinc augmentation can also protect the blood-brain barrier from aluminum toxicity<sup>818</sup>.

### **Augmenting with 9 Nootropics**

As pointed out in chapter 2 both vascular (i.e., white matter intensities) and AD (i.e., accelerated hippocampal atrophy) pathologies are most commonly linked to MCI. A healthy vascular system and hippocampus are both required for short-term memory. White matter lesions in the vascular system of the brain caused by high plasma homocysteine levels may be a causal factor of my mother's rapid loss of short-term memory at age 86. The following nootropic vitamins and essential nutrients for vascular health protect my mother from further cognitive decline and possibly enhance her cognition (see chapter 10 on nootropics):

- **Vitamin B6** (a.k.a. P-5-P Pyridoxal-5-Phosphate) – 50 - 100mg/day prolonged or time released (B50 or B100 complex)
- **Vitamin B12** - 500mcg - 1mg/day as methylcobalamin capsules, tablets, or sublingual lozenges (in addition to 50 - 100mcg of cyanocobalamin in a B50 or B100 complex)
- **5-MTHF** (a.k.a. Methyl Folate) - 400mcg/day, if taking a B50 or B100 complex with 400mcg of folic acid, otherwise take 400mcg to 1mg/day of 5-MTHF
- **TMG** (a.k.a. Trimethylglycine) – 500mg/day (not recommended for diabetics)

The protocol included additional nootropics that enhance cognition by increasing neurogenesis and mitochondrial biogenesis. They include the following (see chapter 10 on nootropics):

- **PQQ** for NGF production, neurite growth, and mitochondrial biogenesis – 20 - 25mg/day
- **CoQ10** for increased mitochondrial energy production - 400mg of CoQ10 per day as ubiquinone or 200mg of CoQ10 as ubiquinol the reduced form of CoQ10
- **Vitamin K<sub>2</sub>-MK-4** for increased neurogenesis and xenoprotection - 5mg - 15mg of vitamin K<sub>2</sub>-MK-4 and 60mcg - 90mcg of vitamin K<sub>2</sub>-MK-7 (not recommended for those on anticoagulants)
- **Taurine and aerobic exercise** for BDNF production and increased neurogenesis - 1.5gr./day of taurine as powder or capsules and 40 to 50 minutes of aerobic exercise three times a week

- **Lutein** for stimulated BDNF production and increased neurogenesis - 10-40mg/day of lutein and 1-5mg/day of zeaxanthin