



## Klinghardt Academy of Neurobiology

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### **KPU Protocol**

#### **Dietrich Klinghardt, MD PhD**

##### **AM before breakfast:**

- Zinc 250 mg/day for 3-4 months (picolinate, gluconate or sulfate). Later in the treatment less zinc may be needed for maintenance
- Manganese 10-30 mg/day

##### **With breakfast**

- Arachidonic acid from Omega-6 oils: evening primrose, ghee, borage oil, black current oi

##### **PM before bedtime:**

- P-5-P 50 mg, B 6 25 mg
- Magnesium 600 mg
- MicroMinerals 1 tbsp (BioPure)

Psychiatric symptoms: Niacinamide 1000 mg tid

Brain: seizures, fog, memory loss: Taurine 500 mg tid.

Skin/hair/nail symptoms: Biotin,

##### **Other considerations:**

- High gamma vitamin E: 400 IU per 40 lbs weight, fish oil 1 tsp/day

- Zinc depletes copper levels. Some patients are or become copper deficient.

There is much misinformation regarding copper in the current nutritional teachings. Beware. Monitor with red cell mineral test and replace if indicated (3-6 mg/day)

Always have metal- detox agents on board (DMSA, Phospholipic Exchange)

To turn on phase-1, 2 and 3 detox:

- sound-wave enhanced chlorella 15 tbl t.i.d. with meals (BioPure)

To mobilize metals from their binding sites, provide glutathion precursors and binding-peptides:

- nanonized chlorella 5-6 sprays b.i.d (Matrix Metals, BioPure)
- energized cilantro tincture 15 drops t.i.d

To shuttle metals from intracellular environment to the liver:

- Phospholipid Exchange – charged EDTA,
- Lipoic acid,
- Phospholipids,
- Magnesium 1 tbsp twice daily (BioPure)

Matrix transport of mobilized metals and facilitated kidney excretion:

- Matrix electrolyte 2 tbsp in daily water (BioPure)
- Substitute KPU related chronic trace mineral losses with mono- atomic elements: MicroMinerals (BioPure): 2 tbsp in daily water