

## SUPPLEMENTS FOR YOUR NERVOUS SYSTEM

**Disclaimer:** Dietary supplementation should NOT be initiated without the supervision of a qualified physician. Check with your doctor before you begin. Several of these supplements may have adverse effects.

### VITAMIN E

- Powerful antioxidant that reduces levels of free radicals and oxidative stress
- Protects against side effects: numbness, tingling, burning and pain

**B COMPLEX:** B1 (thiamine), B2 (riboflavin), B3 (niacin), B5 (pantothenic acid), B6 (pyridoxine), B7 (biotin), B9 (folic acid), B12 (cobalamins)

- B12 deficiency results in damage to protective covering of nerves
- Decrease in pain (B1/B6/B12)
- Folic acid (B9): maintenance of nerve cells

### ACETYL-L-CARNITINE

- 2 small studies - limit chemotherapy induced neuropathy
- Neuroprotective properties
- More studies needed, effectiveness not established

### ALPHA-LIPOIC ACID

- Benefit in diabetic neuropathy (less pain, burning and numbness)
- Further studies needed for safety/efficacy of ALA in prevention/treatment of chemotherapy induced neuropathy

### GLUTAMINE

- A neutral nonessential amino acid thought to have neuroprotective effects (particularly with Paclitaxel)
- More research needed to assess efficacy of glutamine

### GLUTATHIONE

- Tripeptide thought to prevent neurotoxicity
- Efficacy seen in 50 advanced gastric cancer undergoing cisplatin-based chemotherapy

### MAGNESIUM/CALCIUM

- Improvements in neurotoxicity following infusion; helps with cramping
- Caution: may cause diarrhea in large doses
- Need more research to evaluate use as prevention/treatment of chemotherapy induced neuropathy

### N-ACETYLCYSTEINE (AMINO ACID)

- Powerful antioxidant: Animal studies have shown inhibition of diabetic neuropathy and protection against neuropathies caused by chemotherapy drugs

### OMEGA-3 FATTY ACIDS

- High quantities in cold-water fish (salmon) and widely consumed for anti-inflammatory powers
- Essential fatty acids and important component of cell membranes, myelin sheath that protects nerves
- Studies show ability to reduce demyelination of nerves and neuropathic pain

*\*\*Cancer Wellness Center - May 13, 2010 - Anne Leavell, MS, RD, LDN, CDE - Department of Neurology, Northwestern Medical Faculty Foundation*