

Treatments for
mitochondrial
dysfunction
associated with
Neurodevelopmental
Delays

Table 2
Recommend doses of vitamin supplements

Vitamin	Dose
<i>Electron Transport Chain Support</i>	
Co-enzyme Q10: Ubiquinol	5–30 mg/kg/day divided in 2 doses per day
Co-enzyme Q10: Ubiquinone	10–30 mg/kg/day divided in 2 doses per day
<i>Energy Storage and Transportation</i>	
Creatine monohydrate	0.1 g/kg/day divided in 1–2 doses per day
<i>Fatty Acid Oxidation Support</i>	
L-carnitine	30–100 mg/kg/day divided in 2–3 doses per day
Acetyl-L-carnitine	250–1000 mg/day divided in 2 doses per day
Biotin (B7)	5–10 mg/day given once per day
<i>B-Vitamins</i>	
Thiamine (B1)	50–100 mg/day given once per day
Riboflavin (B2)	100–400 mg/day given once per day
Niacin (B3)	50–100 mg/day given once per day
Pyridoxine (B6)	200 mg/day given once per day
<i>Antioxidants</i>	
Acetyl-L-carnitine	250–1000 mg/day divided in 2 doses per day
Vitamin E	200–400 IU/day given once per day
Vitamin C	100–500 mg/day given once per day
alpha-lipoic acid	50–200 mg/day given once per day
<i>Oxidative Stress Support</i>	
Methylcobalamin (B12)	5–1000 mcg/day given once per day
Folinic Acid / leucovorin (B9)	400–800 ug/day given once per day
5-methyltetrahydrofolate (B9)	400–800 ug/day given once per day
N-acetyl-L-cysteine (NAC)	10–70 mg/kg/day divided in 1–3 doses

Frye and Rossignol, 2012 J Ped Biochem 2(4): 241-249