FIBROMYALGIA

Selenium
Deficiency is linked to fibromyalgia; in one trial, symptoms improved in 95% of patients supplemented with selenium for at least 4 weeks.\(^{25,26,27}\)

Magnesium
Involved in pain perception pathways and muscle contraction; treatment with magnesium can improve tenderness and pain.\(^{23,24,25}\)

Zinc
Blood levels of zinc are associated with a number of tender points in fibromyalgia patients.\(^{22}\)

Coenzyme Q10
Clinical trials consistently show that CoQ10 reduces fibromyalgia symptoms such as pain and fatigue.\(^{1,2,3,4}\)

Carnitine
Deficiency causes muscle pain due to inefficient cellular energy metabolism (mitochondrial myopathy) which presents as fibromyalgia.\(^{4,5}\)

Choline & Inositol
Altered levels of both nutrients seen in fibromyalgia; Choline & inositol are involved in pain perception.\(^{6,7,8,9}\)

Serine
Blood levels of this amino acid are much lower in fibromyalgia patients.\(^{10,11}\)

Vitamin B1
Thiamin (B1) deficiency mimics fibromyalgia symptoms including serotonin depletion (decreased pain threshold), a decrease in repair enzymes (muscle soreness) and poor energy production (muscle fatigue).\(^{17,18}\)

Vitamin D
Low levels impair neuromuscular function and cause muscle pain; deficiency is common in fibromyalgia patients.\(^{12,13,14,15,16}\)

Antioxidants
Low antioxidant status increases pain in fibromyalgia, which is often considered an oxidative stress disorder.\(^{19,20,21}\)
REFERENCES


Additional references at http://www.spectracell.com/online-library-mnt-fibromyalgia-abstract/