Case Study

52 year old female patient with chief complaint of MUSCLE ACHES AND CRAMPS, LOW ENERGY AND MENOPAUSAL SYMPTOMS

This breast cancer survivor was primarily diagnosed with Osteopenia, with secondary diagnoses of athralgia and Malaise. Medications she had been taking include Actonel, Arimidex, Calcium, Vitamin D and Vitamin C. SpectraCell's MicroNutrient Testing revealed functional deficiencies of Vitamin B12, Insulin, Selenium, Oleic Acid, Chromium, Vitamin E, Vitamin D and Calcium. **Based upon these deficiencies, she was administered the following daily nutritional supplement protocol:**

1) 1,000 mg IM of Vitamin B12 and 100 mcg of F/B methyl B12
2) 2 tablespoons olive oil
3) 1,000 IU of Vitamin D3
4) 1,200 mg of Calcium citrate
5) 200 mcg of Selenium
6) 400 IU of Vitamin E
7) 100 mcg of Chromium picolate

In addition to the above supplements, diet and exercise programs were implemented. The patient had to perform weight bearing exercises 5 days per week. She also had to have a diet with a low glycemic index, no sugar and no ETOH. Weight loss was recommended through caloric restriction.

Follow up SpectraCell’s MicroNutrient Testing was performed 12 months later.

**Clinical Outcome:**
**Vitamin D and Insulin levels improved. The patient's fasting blood sugar was at 80.** She also experienced relief to her muscle aches and cramps and had increased energy and vigor. The patient was able to resolve her symptoms without prescription medication, have a prevention strategy for potential insulin resistance and utilize a comprehensive regimen for Osteopenia management.