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## NUTRITIONAL SUPPORT USING ULTRAMEAL® MEDICAL FOOD AND DIETARY SUPPLEMENTS IN A PATIENT WITH ALTERED BODY COMPOSITION AND PREMENSTRUAL SYNDROME (PMS)

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### Purpose

To show how targeted nutritional support using UltraMeal medical food in conjunction with dietary supplements may be useful in some cases of altered body composition and premenstrual syndrome.

### Patient's Presentation and History

A 32-year-old Caucasian female presented with PMS symptoms (acne, fatigue, diarrhea, and sweet cravings), as well as complaints of dry hair and skin, cold hands and feet, and low energy in the morning and afternoon. She was diagnosed with hypothyroidism at age 16 and had been on-and-off thyroid medication for several years. Her weight had been an issue since childhood and she had tried a variety of weight loss programs and appetite suppressants with only temporary success. She exercised infrequently, but had adopted a vegetarian diet a year prior to presentation and was avoiding dairy products. Her past high cholesterol (300 mg/dL) had decreased with the vegetarian diet, but she was eating primarily carbohydrates and had some gastrointestinal discomfort with that dietary plan. She was taking flax and borage oil (1,800 mg) daily.

### Patient's Objective Information

- Initial MSQ score was 35
- Height: 66 inches; weight 177 lb.
- BMI<sup>†</sup> 28.6
- Slightly elevated cholesterol (209 mg/dL)

### Plan

The patient was placed on:

- UltraMeal, 1 serving at breakfast
- Low-glycemic-index diet plan
- Chromium picolinate 500 µg bid
- Vitamin/mineral supplement with herbals for PMS symptom relief, 2 bid during second half of cycle

### 8 & 10 Week Results

After 8 weeks, the patient's cholesterol and triglycerides were significantly reduced (Figure 1) and her glucose and insulin parameters showed improvements.

After 10 weeks, she reported improved energy, a significant decrease in sweet cravings, and ameliorated PMS symptoms. Her MSQ score had decreased to 5 (Figure 2), weight to 156, and her BMI to 25.2 (Figure 3).

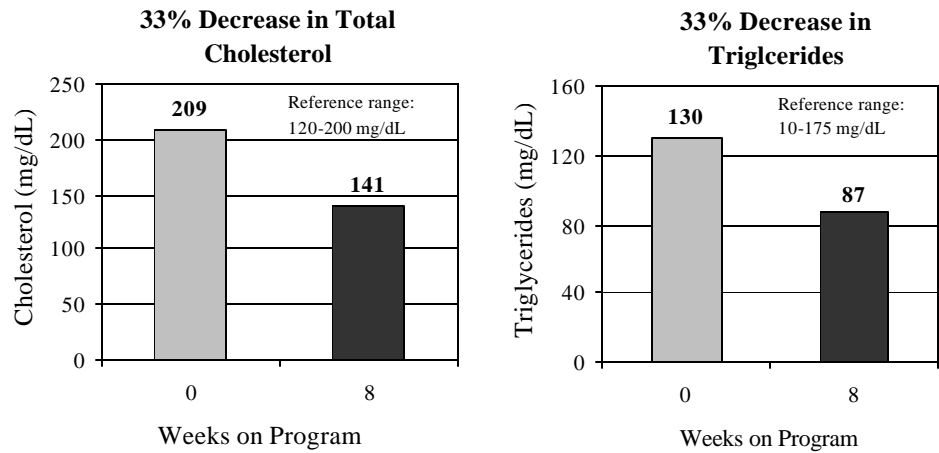
### Conclusion

This case study suggests that UltraMeal with a low-glycemic-index plan can improve body composition and associated dyslipidemia, and may improve estrogen balance; it also supports glucose and insulin metabolism. The addition of a vitamin/mineral supplement with herbals for PMS symptoms may further enhance PMS relief.

**Figure 1**

Dyslipidemia is strongly associated with altered body composition.

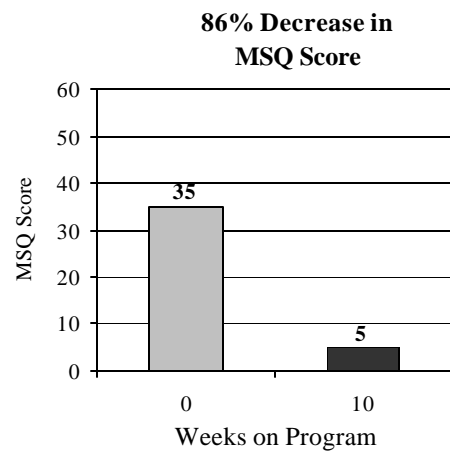
After just 8 weeks on the UltraMeal program, the patients' cholesterol and triglycerides decreased significantly, from 209 mg/dL to 141 mg/dL and 130 mg/dL to 87 mg/dL, respectively.



**Figure 2**

After 10 weeks on the UltraMeal program, the patient's MSQ score dropped from 35 to 5.

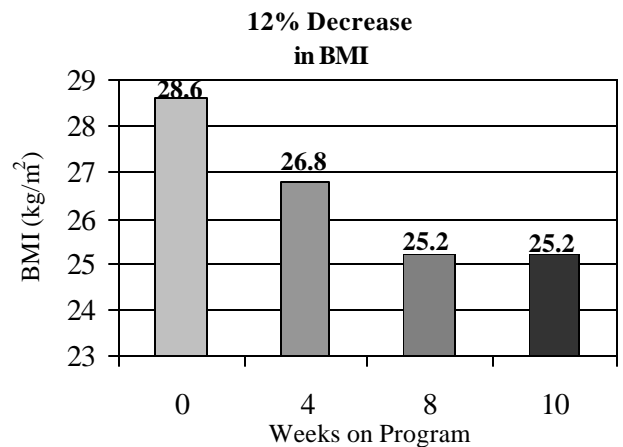
The result shows a very significant positive affect of the program on the patient's physical symptoms.



**Figure 3**

After 8 weeks on the UltraMeal program, the patient's BMI decreased from 28.6 to 25.2, which held into the 10<sup>th</sup> week.

This result suggests improved body composition. A BMI of 25 or less is associated with decreased risk to a number of chronic health conditions.



\*The Medical Symptoms Questionnaire is a clinical tool for the evaluation of general physical symptoms. Total scores above 75 are generally associated with substantial symptomatology and disability; scores below 30 generally indicate few or low intensity symptoms.

<sup>†</sup>BMI is the Body Mass Index and can be computed by the weight (kg) divided by the square of the height (m).

Note: The information provided in this case study describes the results of one patient under the care of a licensed healthcare practitioner and may not be a typical response. UltraMeal Medical Food is to be used under the supervision of a physician or other licensed healthcare practitioner.

Case Study: Nutritional Support using UltraMeal® Medical Food and Dietary Supplements in a Patient with Food Altered Body Composition and Premenstrual Syndrome. Metagenics, Inc.; 007PMS903.