

# Treatment of obesity: effects of micronutrient supplementations and variations of plasma organochlorine concentration on daily energy expenditure and feeding behaviour in obese individuals

**Submission date**

09/09/2005

**Recruitment status**

No longer recruiting

☐ Prospectively registered

☐ Protocol

**Registration date**

09/09/2005

**Overall study status**

Completed

☐ Statistical analysis plan

☐ Results

**Last Edited**

18/04/2008

**Condition category**

Nutritional, Metabolic, Endocrine

☐ Individual participant data

☐ Record updated in last year

**Plain English summary of protocol**

Not provided at time of registration

## Contact information

**Type(s)**

Scientific

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## Additional identifiers

**Protocol serial number**

MOP-44151

# Study information

## Scientific Title

### Study objectives

Obesity treatment - A multi-vitamin supplement attenuates the reduction in energy metabolism-related variables and attenuates the increase in appetite following an energy deficit and a body weight loss

1. Determine the impact of a weight-reducing program on daily energy needs of obese individuals
2. Evaluate the effects of micronutrient supplementation on changes in energy expenditure and feeding behavior that occur in response to weight loss
3. Investigate the relationship between changes in energy expenditure and those in plasma thyroid hormones and organochlorines

### Ethics approval required

Old ethics approval format

### Ethics approval(s)

Comité d'éthique de la recherche, Université Laval, 21 August 2001

### Study design

Randomised controlled trial

### Primary study design

Interventional

### Study type(s)

Not Specified

### Health condition(s) or problem(s) studied

Overweight and obese individuals.

### Interventions

Experimental group: Energy restriction of approximately -700 kcal/day during 15 weeks. Daily consumption of a multi-vitamin supplement during 15 weeks.

Control group: Energy restriction of approximately -700 kcal/day during 15 weeks plus placebo

### Intervention Type

Drug

### Phase

Not Specified

### Drug/device/biological/vaccine name(s)

Mmicronutrients

### Primary outcome(s)

Accentuated body weight and fat mass loss in multivitamin and mineral supplemented group.

### **Key secondary outcome(s)**

1. Attenuation of the reduction in daily and resting energy expenditure following body weight loss in the multi-vitamin supplemented group
2. Attenuation of the decrease in fat oxidation following body weight loss in the multi-vitamin supplemented group
3. Attenuation of the increase in appetite-related variables and energy intake following energy deficit and body weight loss in the multi-vitamin supplemented group
4. Decrease in energy expenditure following body weight loss, which will be accompanied by an increase in organochlorine plasma concentration

### **Completion date**

31/01/2004

## **Eligibility**

### **Key inclusion criteria**

1. Body Mass Index (BMI) between 30 kg/m<sup>2</sup> and 40 kg/m<sup>2</sup>
2. Aged 23 - 47 years old, non-menopausal women
3. Weight circumference of 90
4. Stable body weight during 6 months prior to study
5. Non-smoking
6. Sedentary (less than 1 hour/week of continuous physical activity)

### **Participant type(s)**

Patient

### **Healthy volunteers allowed**

No

### **Age group**

Adult

### **Sex**

Female

### **Key exclusion criteria**

1. Abnormal blood pressure values
2. Use of medication that could potentially interfere with the study's objectives
3. Consumption of vitamin and mineral supplements 6 months prior the beginning of the study

### **Date of first enrolment**

01/11/2001

### **Date of final enrolment**

31/01/2004

## **Locations**

## **Countries of recruitment**

Canada

## **Study participating centre**

### **Division of Kinesiology**

Ste-Foy

Canada

G1K 7P4

## **Sponsor information**

### **Organisation**

Laval University, Quebec (Canada)

### **ROR**

<https://ror.org/04sjchr03>

## **Funder(s)**

### **Funder type**

Research organisation

### **Funder Name**

Canadian Institutes of Health Research (CIHR) (Canada) - <http://www.cihr-irsc.gc.ca> (ref: MOP-44151)

## **Results and Publications**

### **Individual participant data (IPD) sharing plan**

### **IPD sharing plan summary**

Not provided at time of registration