**The Lentil/Chickpea Study**

**Main Study Questions**

The objectives of this study were: 1) to measure the usable energy content of lentils and chickpeas for accurate food labelling, and 2) to investigate the effect of consuming lentils and chickpeas on gut microbiota and microbial end-products.

**Motivation for Research**

Our recent studies measuring the usable energy from nuts have demonstrated that the measured energy value of almonds, pistachios, cashews, and walnuts is lower than that predicted using the Atwater standard calculation method. Pulses (the edible portion of legume plants), while like nuts in composition, have not been studied for their energy value. Energy (calories) is important information to consumers, yet the Atwater standard calculation method is over 100 years old and in some cases produces very inaccurate values. This research will provide a better estimate of the energy value than simply calculating energy value based on Atwater factors. Since pulses may not be completely digested, they may affect gut microbiota. Thus, a secondary outcome was to evaluate gut microbiota.

This study was conducted from early November 2019 to mid-March 2020.

A bowl of food on a wooden table

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