

# 商業減重代餐之蛋白質效率評估

## Evaluations of Protein Efficiency Ratio of Weight-Loss

### Meal Replacement

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#### 摘要

肥胖之盛行率在全世界各國都有增加的現象，根據我國所做的第三次全國營養調查中，發現台灣有四分之一的成年人體重過重或肥胖，且肥胖與許多疾病有密切的關係，減重已成為目前非常重要的課題。商業配方減重代餐的使用亦是減重的方法之一。本研究利用蛋白質效率比(protein efficiency ratio, 簡稱 PER)的方法，來進行商業配方減重代餐之評估。本實驗使用雄性大白鼠，餵食兩種不同口味之商業配方減重代餐，每日餵食 15 克(蛋白質約佔 35%)，觀察其飼料攝取量，並每週測量體重以觀察其生長狀況，實驗期為四週。實驗結果發現，餵食減重代餐的大白鼠體重增加量較對照組緩慢，但大鼠的生長情形並未完全停頓。另外，經由體重變化和蛋白質攝取量計算蛋白質效率得到，香草口味減重代餐之蛋白質效率為 0.51，蔬菜口味減重代餐之蛋白質效率為 0.72。

#### Abstract

Being overweight and obese presents an increasingly prevalent threat to public health. Compelling evidence links being overweight and obese with serious disorders such as cardiovascular disease and diabetes. Increasing energy expenditure and decreasing energy input are the two strategies to reduce body weight. Commercial weight-loss meal replacement is a dietary plan to reduce weight. We evaluated the protein efficiency ratio (PER) of commercial weight-loss meal replacements. Sprague-Dawley (SD) rats were used as experimental animals and daily fed 15 g (35% protein) of different-flavored weight-loss meal replacements for 4 weeks. Food intake was recorded daily, and weight was measured twice a week. Rats fed commercial weight-loss meal replacements gained less weight than those fed casein, but they did not stop growing. The protein efficiency ratio for the vanilla-flavored weight-loss meal replacement was 0.51 and for the vegetable-flavored one was 0.72.