A recent study has shown that people eating a larger portion of their calories at breakfast had better weight loss, glucose control, insulin sensitivity and satiety than those who ate more of their calories at dinner.

High-calorie breakfast improves weight loss results in overweight women

Essentials of Health

Very few studies have examined the potential association between timing of food intake and metabolic syndrome. In a new study published in the journal *Obesity*, researchers compared weight loss from two diets of 1,400 calories, one with the majority at breakfast and one with the majority of calories at dinner.

Overweight and obese women with metabolic syndrome were randomly assigned to one of two weight loss groups, a breakfast (BF) (700 calorie breakfast, 500 calorie lunch, 200 calorie dinner) or a dinner (D) group (200 calorie breakfast, 500 calorie lunch, 700 calorie dinner). The diets were conducted for 12 weeks.

The high calorie breakfast resulted in greater weight loss and waist circumference reduction. Fasting glucose, insulin and ghrelin (a hunger hormone) were reduced in both groups, but fasting glucose, insulin, and HOMA-IR (a measurement of insulin resistance) were decreased to a significantly greater extent in the high calorie breakfast group. Average triglyceride levels decreased by 33.6% in the breakfast group, but increased by over 14% in the dinner group. Results from an oral glucose tolerance test, and the overall daily glucose, insulin, ghrelin and hunger scores were significantly better in the breakfast group. The breakfast group also reported a higher average satiety score than the dinner group.

Based on the results of this study, a high-calorie breakfast with reduced intake at dinner may be beneficial for the management of obesity and metabolic syndrome in overweight and obese individuals.

Jakubowicz, D., Barnea, M., Wainstein, J. and Froy, O. High Caloric intake at breakfast vs. dinner differentially influences weight loss of overweight and obese women. Obesity 2013 Mar 20. doi: 10.1002/oby.20460.