

# Eating a big breakfast fights obesity and disease

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Whether you hope to lose weight or just stay healthy, what you eat is a crucial factor. The right nutrients can not only trim your waistline, but also provide energy, improve your mood, and stave off disease. Now a Tel Aviv University researcher has found that it's not just what you eat—but when.

Metabolism is impacted by the body's circadian rhythm – the biological process that the body follows over a 24 hour cycle. So the time of day we eat can have a big impact on the way our bodies process food, says Prof. Daniela Jakubowicz of TAU's Sackler Faculty of Medicine and the Diabetes Unit at Wolfson Medical Center. In a recent study, she discovered that those who eat their largest daily meal at [breakfast](#) are far more likely to lose weight and waist line circumference than those who eat a large dinner.

And the benefits went far beyond pounds and inches. Participants who ate a larger breakfast – which included a dessert item such as a piece of chocolate cake or a cookie – also had significantly lower levels of insulin, glucose, and triglycerides throughout the day, translating into a lower risk of cardiovascular disease, diabetes, hypertension, and [high cholesterol](#). These results, published recently in the journal *Obesity*, indicate that proper meal timing can make an important contribution towards managing obesity and promoting an overall healthy lifestyle.

The study was done in collaboration with Dr. Julio Wainstein of TAU and the Wolfson Medical Center and Dr. Maayan Barnea and Prof. Oren

Froy at the Hebrew University of Jerusalem.

## **A dramatic difference**

To determine the impact of meal timing on [weight loss](#) and health, Prof. Jakubowicz and her fellow researchers conducted a study in which 93 obese women were randomly assigned to one of two isocaloric groups. Each consumed a moderate-carbohydrate, moderate-fat diet totalling 1,400 calories daily for a period of 12 weeks. The first group consumed 700 calories at breakfast, 500 at lunch, and 200 at dinner. The second group ate a 200 calorie breakfast, 500 calorie lunch, and 700 calorie dinner. The 700 calorie breakfast and dinner included the same foods.

By the end of the study, participants in the "big breakfast" group had lost an average of 17.8 pounds each and three inches off their waist line, compared to a 7.3 pound and 1.4 inch loss for participants in the "big dinner" group. According to Prof. Jakubowicz, those in the big breakfast group were found to have significantly lower levels of the hunger-regulating hormone ghrelin, an indication that they were more satiated and had less desire for snacking later in the day than their counterparts in the big dinner group.

The big breakfast group also showed a more significant decrease in insulin, glucose, and triglyceride levels than those in the big dinner group. More important, they did not experience the high spikes in blood glucose levels that typically occur after a meal. Peaks in blood sugar levels are considered even more harmful than sustained high blood glucose levels, leading to high blood pressure and greater strain on the heart.

## **Eliminating late night snacking**

These findings suggest that people should adopt a well thought-out meal schedule, in addition to proper nutrition and exercise, to optimize weight loss and general health. Eating the right foods at the wrong times can not only slow down weight loss, it can also be harmful. In their study, the researchers found that those in the big dinner group actually increased their levels of triglycerides—a type of fat found in the body—despite their weight loss, reports Prof. Jakubowicz.

Prof. Jakubowicz suggests an end to late night snacking. Mindless eating in front of the computer or television, especially in the late evening hours, is a huge contributor to the obesity epidemic, she believes. It increases not only poundage, but the risk of cardiovascular disease—making that midnight sugar rush more costly than it appears.

Provided by Tel Aviv University

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