Diets are everywhere, but could eating “negative calorie” foods, such as celery and grapefruit, help to boost weight loss? A calorie is a unit of energy, usually expressed as kilocalories (kcal) for the energy content in food. The theory behind negative calorie foods is that some foods have lower calorie (energy) content than the amount of energy it takes to digest and absorb the food into the body. This sounds plausible, in theory. But in reality, even the lowest calorie foods, such as celery, contain more calories than it takes to break down and absorb them in the body. Our energy needs are made up of three components: • The energy needed to maintain a body at rest, which is the energy needed for our body to carry out its basic processes so we can live. • The thermic effect of eating, which is the increase in metabolic rate after eating, while food is digested and absorbed. • Additional energy needed for activity and exercise.

Of these, the thermic effect uses the fewest calories—about 10% of the energy we take in. In other words, about a tenth of the calories we eat are used to process our food—this includes chewing our food, moving it through the digestive system, absorbing nutrients, and storing excess energy.

Foods such as celery, grapefruit, broccoli, tomatoes, and cucumber have all been touted as negative calorie foods, but there is no scientific evidence to support this idea. Although they are very low calorie foods, with seven to 30 kcal per 100g, it still takes less energy than this to process them. This is because they contain large amounts of water and fiber, which have a very low energy cost.