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**Autor(en) des Beitrags:**

Erdmann, J; Hebeisen, Y; Lippl, F;  
Wagenpfeil, S; Schusdziarra, V

**Titel des Beitrags:**

Food intake and plasma ghrelin response during potato-, rice- and pasta-rich test meals.

**Abstract:**

**OBJECTIVE:** Complex carbohydrates such as potato, rice and pasta are frequently consumed accompaniments of meat meals and have different effects on satiety, food intake, glucose, and insulin concentrations. The orexigenic gastric hormone ghrelin contributes to feeding regulation and as yet it is unknown whether there is any differential ghrelin response to these starchy food items corresponding to their effects on food intake. **METHODS:** In 11 subjects the effect of satiating amounts of potatoes, rice or pasta consumed together with 150 g pork steak was examined on hunger/satiety ratings, food intake, plasma insulin, glucose and ghrelin concentrations. **RESULTS:** All meals led to comparable quantities of food intake while energy intake was significantly lower after potatoes. Satiety/hunger ratings were significantly different from basal for the entire 4 h period after rice and pasta meals, while they had returned to basal during the 4th hour after potatoes. After rice and pasta insulin rose significantly for 4 h. Ghrelin decreased during the 2nd and 3rd hour. In contrast potatoes stimulated insulin for the initial 2 h only while ghrelin rose significantly by 120 pg/ml over the 4 h period. A significant correlation was observed between ghrelin and hunger ratings while subsequent second meal food and energy intake did not differ irrespective of the preceding ghrelin concentration. **CONCLUSION:** Compared to rice and pasta satiating

amounts of potatoes coingested with meat result in lower energy intake and postprandial insulin concentrations, which is not counterbalanced during subsequent food intake despite higher ghrelin concentrations. The present data support the concept that ghrelin can affect hunger sensations but not necessarily food and energy intake.

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