

# Studies on Single Meal Eating Behaviour

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## Abstract

Eating behaviour can be described on a macro- or micro-structure level. The "macrostructure" of eating behaviour mainly describes *when* and *what* subjects eat. The "microstructure" of eating behaviour on the other hand, describes *how* subjects eat, within a single meal. The aim of this thesis was to objectively analyse the microstructure of single meal eating behaviour. Thus, a universal eating monitor "VIKTOR" was developed. The VIKTOR-equipment was used in this thesis to study:

- if eating behaviour is related to relative body weight and/or gender in adults and to test the stability of this eating behaviour (study I).
- if the eating behaviour differs between obese and normal weight 11-year-old children (Study II) and if this eating behaviour is affected four years later (Study III).
- the eating behaviour of a group of chronically ill patients (uremia used as a model) in comparison with age-matched healthy controls (Study IV) and to determine whether the dialysate in the abdomen of patients on continuous peritoneal dialysis affects the eating behaviour (Study IV).
- the effects of different meals on satiety. Equicaloric meals with different protein and carbohydrate content (Study V) and carbohydrate meals made of the same components but with different structures and thus different glycaemic responses (Study VI) were compared.

It was concluded that the VIKTOR-equipment is a useful tool for identifying differences in single meal eating behaviour between clinical groups. It was also concluded that the VIKTOR-equipment may well be used in studies with within-subjects design to test the effects of manipulations on satiety.

Keywords: children, carbohydrate, eating behaviour, hunger, obesity, protein, satiety, universal eating monitor, uremia

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