

- **Salt taste after bariatric surgery and weight loss in obese persons**

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Abstract:

Background. Little is known about the perception of salty taste in obese patients, especially after bariatric surgery. Therefore, the aim of this study was to analyse possible differences in salt detection thresholds and preferences for foods differing in salt content in obese persons before and after bariatric surgery with weight loss compared to non obese individuals. Methods. Sodium chloride detection thresholds and liking for cream soups with different salt concentrations were studied with established tests. Moreover, a brief salt food questionnaire was assessed to identify the usage and awareness of salt in food. Results. The results showed similar mean sodium chloride detection thresholds between non-obese and obese participants. After bariatric surgery a non-significant increase in the salt detection threshold was observed in the obese patients (mean +/- SD: 0.44 +/- 0.24 g NaCl/L before OP vs. 0.64 +/- 0.47 g NaCl/L after OP,  $p = 0.069$ ). Cream soup liking between controls and obese patients were not significantly different. However, significant sex specific differences were detected with the tested women not liking the soups ( $p < 0.001$ ). Results from the food questionnaire were similar between the groups. Conclusion. No differences between non-obese persons and obese patients were shown regarding the salt detection threshold. However, due to highly significant differences in soup liking, sex should be taken into consideration when conducting similar sensory studies.

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