

## Correlations between olfactory and gustatory function and cognitive abilities in the elderly: a preliminary study

*Saturday, September 13, 2025 2:10 PM (20 minutes)*

**Introduction:** Aging is a process characterized by a progressive physiological degeneration in global functioning, including the decline of cognitive functions and sensory processes. Previous studies from our Labs report that deficits in chemical senses such as smell and taste can predict the onset of cognitive and neurodegenerative diseases, highlighting a link between olfactory, gustatory and cognitive deficits. The present study aimed to investigate possible correlations between chemosensory and cognitive functions and variables related to well-being and mood in a group of elderly subjects. **Method:** Forty-seven subjects were recruited (age range: 57-88 years). Chemosensory function was assessed by the Sniffin'Stick test and the Taste Strips test, while evaluation of several psychological domains was performed by using validated tools, among them the MMSE, FAB, Digit span, Trail Making test, DASS-21, CRI, PWB, etc. **Results:** Several correlations between chemosensory, in particular olfactory, and cognitive functions and general well-being have been found. Specifically, significant correlations were detected between the olfactory discrimination, phonemic fluency, performance in visual-motor tracking tasks and general well-being. On the contrary, no significant correlations were observed between taste, cognitive functions and variables related to psychological well-being and mood. **Conclusions:** This is a preliminary cross-sectional study on a small sample of subjects, almost all female, which encourages more in-depth longitudinal studies with larger numbers of participants and improved gender balance. Nevertheless, our results highlight the importance of using chemosensory assessments for the early diagnosis of cognitive decline and for the development of appropriate personalized risk prevention strategies.

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