

Taste Function in Patients with Relapsing-Remitting Multiple Sclerosis: Preliminary Results.

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Background: Multiple sclerosis (MS) can involve multiple sensory systems, yet taste remains underexplored. Emerging evidence points to central gustatory pathway involvement, with potential consequences for nutrition and quality of life and it could reflect subtle neurological dysfunction.

Aims: Evaluate taste function in RRMS patients and explore potential associations with clinical and demographic variables.

Material and Methods: 78 RRMS patients (F:M 3:1; age 44 ± 10.7 years; EDSS 2.5 ± 1.6 ; disease duration 14.7 ± 15.4 years). Gustation tested with Taste Strips (sweet, salty, sour, bitter; 4 concentrations each). Participants classified as non-tasters / medium-tasters / super-tasters. Statistics: Chi-square (performance across stimuli), one-way ANOVA (sex differences), Pearson's r (EDSS & disease duration vs taste performance; $\alpha=0.05$).

Results: sour was the hardest to detect—requiring higher concentrations than sweet, salty, and bitter. A sex effect emerged only for sweet, identified at lower concentrations by women; no differences for other tastes by sex, age, or DMT category. No correlations were found between gustatory sensitivity and disease duration or EDSS. Taster phenotype: 20.5% non-tasters, 65.5% medium-tasters, 16.4% super-tasters.

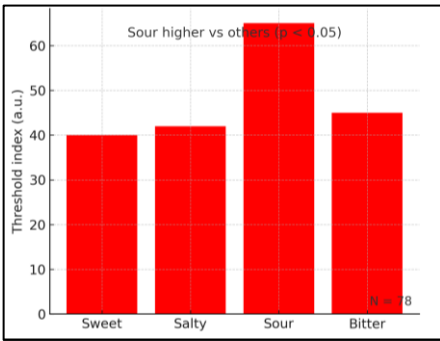


Figure 1. Threshold by taste

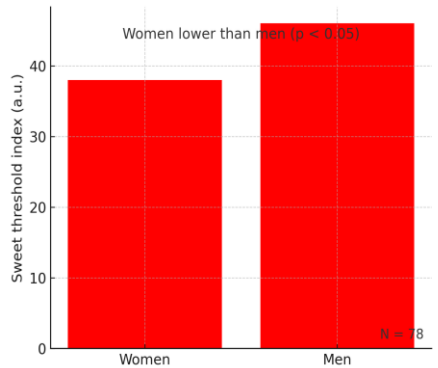


Figure 2. Sweet threshold by sex

Conclusion: RRMS shows selective taste impairment, most evident for sour. A female advantage for sweet suggests possible neurobiological and hormonal modulation. Next steps: include healthy controls and neuroimaging to clarify mechanisms and clinical relevance.

Phenotype	N = 78 RRMS
Non-Tasters	16 (20.5%)
Medium-Tasters	48 (61.5%)
Super-Tasters	14 (17.9%)

Table. Taster Phenotype



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