

## Sugar Taste Thresholds in Moroccan population

**Introduction:** As under developing countries, Morocco is also a victim of the nutritional transition characterized by a food imbalance that is based on high sugar consumption (95g/p/d) directly involved in triggering serious health problems. Action plans are then necessary to conduct at the national level as part of the prevention of various diseases. Therefore, the purpose of this study is to define the threshold of perception of sweet taste "sucrose" among the Moroccan population and to evaluate differences according to sex and age groups.

**Methods:** This cross-sectional and simple-blind experimental study was conducted among 199 subjects aged from 15 years and over. For each subject, anthropometric characteristics were measured. Sucrose threshold perception was determinate based on the validated 3-AFC test method for 9 prepared solutions (1000ml) of sucrose at different concentrations ranging from 0 to 243 mmol / l.

**Results:** The results show that 91.96% of the studied population perceives sweetness at a high threshold of 27 mmol / l. A high sweet sensitivity were observed in women (124), but no significant difference ( $P > 0.05$ ), according to sex, was found for perception of sweet taste at all concentrations. Concerning BMI status, the major part of our study population was restricted in normal status for all concentrations and no significant difference was noted.

**Conclusion:** The present study showed that Moroccan population is in risk of different diseases linked to its high sweet perception threshold. Therefore, it is strongly recommended to reduce sugar consumption in order to combat non-communicable disorders, who have become the leading cause of death in the world.

### Institution

Faculty of Sciences-Ibn Tofail University

### Country

Morocco

**Author:** Ms BOUZIANI, Amina (Joint Research Unit in Nutrition and Food, URAC 39 (Ibn Tofail University-C-NESTEN)Regional Designated Center of Nutrition (AFRA/IAEA),Morocco)

**Co-authors:** Prof. KHADMAOUI, Abderrazzak (Joint Research Unit in Nutrition and Food, URAC 39 (Ibn Tofail University-CNESTEN)Regional Designated Center of Nutrition (AFRA/IAEA), Morocco); Ms BAJIT, Habiba (Joint Research Unit in Nutrition and Food, URAC 39 (Ibn Tofail University-CNESTEN)Regional Designated Center of Nutrition (AFRA/IAEA), Morocco); Prof. BENKIRANE, Hasnae (Joint Research Unit in Nutrition and Food, URAC 39 (Ibn Tofail University-CNESTEN)Regional Designated Center of Nutrition (AFRA/IAEA),Morocco); Prof. AGUENAOU, Hassan (Joint Research Unit in Nutrition and Food, URAC 39 (Ibn Tofail University-CNESTEN)Regional Designated Center of Nutrition (AFRA/IAEA), Morocco); Ms BOUHAMIDA, Meryem (Joint Research Unit in Nutrition and Food, URAC 39 (Ibn Tofail University-CNESTEN)Regional Designated Center of Nutrition (AFRA/IAEA), Morocco); Ms GUENNOUN, Yasmine (Joint Research Unit in Nutrition and Food, URAC 39 (Ibn Tofail University-CNESTEN)Regional Designated Center of Nutrition (AFRA/IAEA),Morocco); Prof. TABOZ, Youness (Joint Research Unit in Nutrition and Food, URAC 39 (Ibn Tofail University-CNESTEN)Regional Designated Center of Nutrition (AFRA/IAEA), Morocco)

**Presenter:** Prof. AGUENAOU, Hassan (Joint Research Unit in Nutrition and Food, URAC 39 (Ibn Tofail University-CNESTEN)Regional Designated Center of Nutrition (AFRA/IAEA), Morocco)

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