

**Dietary products and human microbiota: A liaison for disease control and prevention?**Luigi Santacroce<sup>1</sup> and Salvatore Scacco<sup>2</sup><sup>1</sup>Ionian Dept., University of Bari, Italy<sup>2</sup>Dept. of Medical Basic Sciences, Neuroscience and Sensory Organs Policlinico Hospital University of Bari, Italy

Historically, fish sauce has been a standard condiment and ingredient in various Southeast Asian cuisines. Moreover, fish sauce imparts umami taste, which may enhance perceived saltiness in food. This quality suggests that fish sauce may be used as a partial substitute for sodium chloride (NaCl) in food preparation, which may present a valuable option for health-conscious and salt-restricted consumers. However, the degree to which NaCl can be decreased in food products without compromising taste and consumer acceptance has not been determined. We hypothesized that NaCl content in food may be reduced by partial replacement with fish sauce without diminishing palatability and consumer acceptance. Preparations of three types of food were assessed to test this hypothesis: Chicken broth (n=72); tomato sauce (n=73); and coconut curry (n=70). In the first session, the percentage of NaCl that could be replaced with fish sauce without a significant change in overall taste intensity was determined for each type of food using the two-alternative forced choice method. In the second session, subjects rated five samples for each food with varying NaCl and/or fish sauce content on three sensory attributes: Deliciousness; taste intensity; and saltiness. Our results demonstrate that NaCl reduction was possible in chicken broth, tomato sauce, and coconut curry at 25%, 16% and 10%, respectively, without a significant loss ( $p < 0.05$ ) in deliciousness and overall taste intensity. These results suggest that it is possible to replace NaCl in foods with fish sauce without reducing overall taste intensity and consumer acceptance.

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