

## S 3

# Oral food processing: a dental perspective

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Oral food processing is essentially associated with complex kinetic actions controlled by specific neuromuscular interactions of the jaw and neck system. In this context, the development of new food types that address general nutrition needs should consider the masticatory ability and performance which does not represent a stable entity.

Chewing function of the human masticatory system is significantly modified by aging, by painful dysfunctions, or by changes in the dentition. Dentists are challenged by several physiological and biomechanical issues, in their effort to rehabilitate an impaired masticatory system under the aspect of effective oral food processing.

Current progress in FE modelling offers a completely new perspective of prosthodontic rehabilitation in relation to biomechanical performance optimization. The presentation will inform about current experimental studies on food processing and recent developments in kinetic FE modelling, which addresses the short-range interaction of the antagonistic teeth, and in particular, the behavior of the masticatory system during the mincing process of various foods.

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