

## **Enamel hypoplasia and health condition through social status in the Roman Imperial Age**

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Dental enamel hypoplasia is a deficit in enamel matrix formation occurring in childhood and resulting from nutritional deficiency or diseases. Examination of hypoplastic lesions in ancient skeletal remains provides an excellent index of developmental stress levels in the past. In this research, the incidence and distribution of Linear Enamel Hypoplasia (LEH) were detected to investigate whether the social status had affected the health and nutritional conditions of the Romans during the Imperial Age.

Dental enamel hypoplasia was observed in the teeth of 200 human skeletal remains found in two large necropolises from the Imperial Age in Rome (Italy). Both necropolises, dated back to (1<sup>st</sup>-2<sup>nd</sup> centuries A.D.), are located near the ancient centre of Rome and the presence of different typologies of graves, with monumental mausoleums and simple tombs, testifies that the cemeteries were used by diversified social classes.

The availability of two sub-samples with different subsistence patterns in the same population permitted to evaluate the distribution of the dental stress markers evidencing the differences between the social classes.

Enamel hypoplasia was collected in the whole dentition and differences were found between anterior and posterior teeth, male and female samples, upper and lower social classes. The results will be discussed taking into account other skeletal and dental indicators of health and life condition collected in the sample, and in relation to the economic and social life in Rome during the Imperial Age.