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## Dąbrowska Z., Bijowski K. EFFECT OF OXIDANTS AND ANTIOXIDANTS ON ORAL HEALTH

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**Introduction.** Oxidation-reduction processes are an element of the majority of biological processes. An excess of free radicals (FR) and reactive oxygen species (ROS) leading to the development of oxidative stress are the cause of many general and local diseases, such as: diabetes, rheumatiod arthritis, atherosclerosis, periodontal diseases and diseases of other elements of the masticatory organ. The sources of free radical to which the oral cavity is exposed are the air, water, food, stimulants, drugs, and other xenobiotics. Constant exposure to FR has led to the development in the oral cavity of antioxidative defence mechanisms. Simultaneously, the provision to the oral cavity environment of anti-oxidants, such as: vitamins C and E, carotenoids, flavonoids, reduces oxidative stress in the oral cavity environment.

**Aim:** the aim of the study is presentation of the current state of knowledge concerning the effect of oxidants and anti-oxidants on the oral cavity environment.

**Materials and methods.** Based on scientific literature in the past few years, the results of studies concerning oxidationreduction processes in the oral cavity environment were analyzed, and endogenous and exogenous factors for oxidation, as well as anti-oxidation discussed. Etiologic factors of the pathogenic processes were indicated in the course of oxidative stress, and the possibilities of its reduction due to antioxidants.

**Conclucions.** Oxidative stress as an etiologic factor of pathological processes in the oral cavity may be balanced or weakened as a result of the action of antioxidation mechanisms of endogenous origin (salivary protective components), and exogenous contained in food and medicinal products. This creates the possibility for development of prophylactic programmes in oral diseases.