Reactive oxygen species (ROS) can be formed accidentally and on purpose (specially). An accidental method of formation of reactive oxygen species is their formation as by-products of the reaction as a result of the work of enzymes: monoamine oxidases, oxidases of D- and L-amino acids, polyamine oxidases, lysyl oxidases. However, when the ratio of ROS and antioxidants is violated, ROS accumulates, which can lead to the development of diseases: hypertension, atherosclerosis, coronary heart disease, bronchopulmonary diseases, malignant cell growth, rheumatoid arthritis, gastritis, neurodegenerative processes (Parkinsonism, Alzheimer's disease). The factors contributing to the formation of ROS and the occurrence of lipid peroxidation are called prooxidants, these include: pharmacological agents, poisons, toxins, allergens, ionizing, ultraviolet radiation and other types of radiation. Reactive oxygen species are formed as a result of the work of enzymes: NADPH oxidases, myeloperoxidases, NO synthases, lipoxygenases, cyclooxygenases. Spontaneously ROS are formed, for example, in the respiratory chain of mitochondria, during microsomal oxidation, and hemoglobin oxidation in erythrocytes. Participation in the synthesis of biologically active substances (thyroid hormones, eicosanoids); 4. Specially. This leads to cell death.