

Selenium in organism

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Abstract

Selenium is an essential trace element for animals and humans.

Selenium exerts its physiological roles also on local cell level as at systemic level. Selenium is important for glutathione peroxidases activity, for maintenance of cell membrane integrity and for normal growth and cell differentiation. Selenium and vitamin E are important protective mediators for protection against oxidative stress.

At a systemic level, selenium exerts multiple effects on the aging process, cancer chemoprevention, antitoxic immune responses, blood fluidity, functions of the endocrine system (thyroid, adrenals, pancreas, testes, ovary) carbohydrates and lipids metabolism, bone metabolism, muscle function, biliary secretion, learning.

Keywords: selenium, selenoproteins, glutathione peroxidases, oxidative stress, antioxidant capacity, endocrine systems.