

# Glutathione: a key player in autoimmunity.

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## Abstract

Increasing attention in the physiopathology of inflammatory/immunomediated diseases has been focused on the role of reactive oxygen species (ROS), oxygen-based molecules possessing high chemical reactivity and produced by activated neutrophils during the inflammatory response. During chronic inflammation, when sustained production of ROS occurs, antioxidant defences can weaken, resulting in a situation termed oxidative stress. Moreover, antioxidant defence systems have been demonstrated to be constitutively lacking in patients affected with chronic degenerative diseases, especially inflammatory/immunomediated. Glutathione, a tripeptide, is the principal component of the antioxidant defence system in the living cells. Glutathione has been demonstrated to have diverse effects on the immune system, either stimulating or inhibiting the immunological response in order to control inflammation. The study of interactions between glutathione and the immune system has attracted many investigators. Altered glutathione concentrations may play an important role in many autoimmune pathological conditions prevalently elicited, detrimed and maintained by inflammatory/immune response mediated by oxidative stress reactions. The role of glutathione in autoimmunity will be reviewed herein.

PMID: 19393193 [PubMed - indexed for MEDLINE]

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- [Antioxidants/metabolism](#)
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- [Complement System Proteins/immunology](#)
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