

# Autoimmunity induced by chemicals

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Affiliations + expand

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## Abstract

Immunotoxicologic studies have demonstrated that autoimmune responses and/or autoimmune diseases are induced in humans and experimental animals by chronic exposure to various chemicals. The present review is focused on seven groups of chemically induced human disorders, i.e. systemic lupus erythematosus, autoimmune hemolytic anemia, myasthenia gravis, pemphigus, glomerulonephritis, thyroiditis and hepatitis. Results obtained from studies of the available experimental counterparts of these diseases, i.e. those models obtained from the exposure of laboratory animals to various chemicals, are then analyzed. Finally, we present the lessons that can be derived from immunotoxicologic investigations regarding mechanisms of induction, heterogeneity of chemicals involved, humoral vs. cellular immune responses and genetic predisposition to chemically induced autoimmunity.