

# Environmental Exposure and Systemic Lupus Erythematosus : A Systematic Review

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**Abstract :** Systemic lupus erythematosus (SLE) is an autoimmune connective tissue disease. The etiology of SLE is unknown, however, similar to many autoimmune diseases, it is thought that environmental factors trigger this disease in genetically predisposed individuals. In this study, we conducted a systematic review of cohort studies and case-control studies which evaluated the effect of environmental factors, such as smoking, alcohol drinking and hair dye use, on the incidence of SLE. We searched the 1993–2008 PubMed database for original articles which had been published in English. A total of 32 articles were included in the analysis. The data regarding the relationship between the various environmental factors and the incidence of SLE were conflicting, but suggest that smoking habits, the use of postmenopausal hormones, and a family history of SLE may be associated with an increased risk of SLE. On the other hand, alcohol drinking was reported to be significantly inversely associated with SLE in several papers. Because most of studies were carried out in Western countries, the application of these findings to people in other countries, including Japan, may not be appropriate. Further studies on the incidence of SLE are therefore required to conclude the relationship of environmental factors and SLE.

**Key words :** Environmental factors, Systematic review, Systemic Lupus Erythematosus