

# Biological Relevance and Consequences of Chemical- or Metal-Induced DNA Cross-Linking (43964)

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**Abstract.** A vast number of chemicals are known to induce mutagenesis and/or carcinogenesis in mammals. Although disruption of cellular nuclear material resulting ultimately in mutagenesis/carcinogenesis can be accomplished by various mechanisms, the search for biomarkers of chemical-induced toxicity continues. This review focuses on the ability of certain metals or chemicals to bind to DNA in a cross-link fashion in whole animal as well as under *in vitro* conditions. The methodologies currently used to determine DNA cross-linking are described. The biological relevance of the presence of chemical- or metal-induced DNA cross-linking as a measure of carcinogenesis in humans is still under debate, as there is no clear correlation between the disease and the DNA cross-link reaction. [P.S.E.B.M. 1996, Vol 211]