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### **Micronuclei in families exposed to air pollution**

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The frequency of micronuclei (MN) in lymphocytes was used to assess the cytogenetic effects of environmental exposure in 24 families, including mothers and two siblings. Teplice, a former mining district, was selected for investigation of the effects in a population exposed to air pollution and compared with a population from rural Prachatice. Significantly increased MN frequency was found in children and mothers from the Teplice area as compared with those from the reference area. Higher MN frequency in families living close to traffic and in families exposed to adverse indoor emissions of PM indicate a potential impact of these sources on the MN frequencies. No significant effect of environmental tobacco smoke was found. The family pilot study indicates that MN is a valuable and sensitive biomarker for early biological effect associated with environmental exposure in children and adults. An increased level of MN is considered predictive of increased cancer risk. MN in mothers as well as children was increased by environmental exposure, while this study could not show age related differences in susceptibility to environmental exposures.

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