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## DNA Damage and Repair Studies in Individuals Working with Photocopying Machines

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**KEY WORDS** Comet assay; SCGE; photocopiers; photocopying toners.

**ABSTRACT** Photocopiers are one of the most common machines in the market today. They are a source of employment for a large number of people. The personnel working with photocopiers are commonly exposed to toners and their byproducts during reloading and running of the machines. The main components of these toners are carbon black, styrene, resins, formaldehyde and polycyclic aromatic hydrocarbons (PAHs) and they are known to be genotoxic. The present investigation was undertaken to screen 29 individuals working with photocopying machines, for possible genotoxic effects, using comet assay, on their peripheral blood leukocytes. For comparison 26 controls were included. DNA repair studies were also undertaken on 10 exposed and 10 control subjects. 50 cells per treatment were scored for comet tail length, which is an estimate of DNA damage. A significant increase in basal DNA damage and a decrease in the repair efficiency were observed in the exposed group compared to the controls.

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