

Bacterial urinary mutagenicity test for monitoring of exposure to genotoxic compounds: A review

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Summary: Testing human urine for mutagenic activity towards bacteria has proven to be a useful means for identifying genotoxic exposure. The review documents the utilization of the urinary mutagenicity test using *Salmonella typhimurium* indicator strains (Ames test) to monitor populations occupationally or environmentally exposed to genotoxic compounds. Confounding factors, mainly smoking and diet, have to be taken into consideration when interpreting the urinary mutagenicity results. Some methodological improvements in the past few years have increased the sensitivity of the urinary mutagenicity test also for identifying environmental exposure to genotoxins. The test appears to be a valid approach for biological monitoring in the field of preventive medicine.

Key words: urinary mutagenicity, *Salmonella*/microsome mutagenicity assay; biomarker of exposure to genotoxins

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