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IS10. EFFECTS OF EXPOSURE TO HAZARDOUS SUBSTANCES IN POTTERY AND CERAMIC WORKERS

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During the last decade, the production and hence, the amount and the types of exposure of hazardous chemicals have been increased in the occupationally exposed workers. Most of these chemicals have deterious effects in the living systems. The level of chemical exposure in the occupational settings and the biomonitoring of workers and also establishing the regulatory endpoints are very important. The exposures of chemicals in the workplaces have been associated with the increase in allergy, organ and system disorders and cancer. Therefore, the removal of these hazardous substances or the substitutions of them with non-toxic ones are necessary for the protection of workers' health. In a large variety of occupations such as pottery and ceramic industry, workers may be exposed to the many chemicals mainly to crystalline silica. Occupational exposure to crystalline silica dust is related to an increased risk for pulmonary diseases such as silicosis, tuberculosis, chronic bronchitis and lung cancer. The genotoxic changes as assessed by comet assay in foundry and ceramic workers will be given. In the presentation, the effects of age, smoking, alcohol and protective equipment usage on the genotoxicity parameters will also be discussed.

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