Styrene and ischemic heart disease mortality among synthetic rubber industry workers.

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Abstract

OBJECTIVE: We examined the relation between styrene and ischemic heart disease (IHD) mortality among 16,579 men in the synthetic rubber industry.

METHODS: Associations were measured using stratified and multivariable analysis.

RESULTS: Compared with workers with no exposure to styrene, men in the highest quintile of average intensity of exposure (5.50+ parts per million [ppm]) and in the highest quintile of cumulative exposure (60.67+ ppm-years) had IHD rate ratios of 1.14 (95% confidence interval [CI]=0.96-1.35) and 1.07 (95% CI=0.90-1.27), respectively. Acute IHD was not associated with average intensity of exposure within the most recent 2 years or with other indices of exposure. Chronic IHD rates were elevated in subjects with the highest exposure; these associations were weak and imprecise, and evidence of a positive exposure-response relation was limited.

CONCLUSION: This study does not indicate that exposure to styrene causes fatal IHD.