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## JOURNAL ARTICLE

# Laser light-scattering study of the toxic effects of methylmercury on sperm motility

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An in vitro study was designed using the laser light-scattering technique to obtain further information on the dose-effect relationship of methylmercury on sperm motility. The technique provided a quantitative evaluation of sperm swimming speed. Semen samples were collected from normal male *Macaca fascicularis* monkeys by anal electroejaculation. Methylmercury was added to aliquots of sperm suspensions in BWW medium in doses of 10, 5, 2, and 1 ppm. After 3 hours, the relative speed was 35%, 59%, 69%, and 92% of the corresponding controls at doses of 10, 5, 2, and 1 ppm, respectively. The percentage of motile spermatozoa decreased significantly at 10 ppm. By microscopic observation abnormal motility was detected at 5 and 10 ppm, especially after 20 to 40 minutes. Head movement increased from side to side, and many spermatozoa developed coiled tails. The technique proved useful for defining the dose-effect relationship of methylmercury and sperm swimming speed.

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