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## **Second-hand smoke exposure boosts miscarriage risk**

NEW YORK (Reuters Health) - Pregnant women who are exposed to second-hand smoke may be at heightened risk for suffering miscarriages, according to research from Sweden.

"Given the high prevalence of exposure to environmental tobacco smoke and the fact that spontaneous abortion is the most common adverse outcome of pregnancy, the public health consequences of passive smoking regarding early fetal loss may be substantial," researchers conclude in a report in the journal *Epidemiology*.

Previous studies of passive smoke exposure in pregnancy have relied on reports from study participants themselves, and have had inconsistent results, Dr. Lena George of the Karolinska Institute in Stockholm and colleagues note.

To evaluate nicotine exposure more precisely, they measured study participants' blood levels of cotinine -- a marker for nicotine exposure.

The researchers matched 463 women who had miscarried at 6 to 12 weeks of pregnancy with 864 women at the same stage of pregnancy who had not miscarried.

Twenty-four percent of the women had cotinine levels indicating passive smoke exposure, compared to 19 percent of the controls.

Women who smoked were more than twice as likely as nonsmokers to miscarry, the researchers found. They also found that those whose cotinine levels indicated they were exposed to second-hand-smoke were 67 percent more likely to miscarry than those who weren't exposed to second-hand smoke.

In an editorial accompanying the study, Dr. Michael B. Bracken calls the increased risk George and her team found for second-hand smoke "surprisingly strong."

SOURCE: *Epidemiology*, September 2006.

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