

## Nicotine patches may not help during pregnancy

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Most women stopped using them early, making it harder to draw conclusions, study says.

(HealthDay) -- Nicotine patches don't seem to be of much use in helping pregnant women quit smoking, a new study finds.

Dr. Tim Coleman, of the Centre for [Tobacco Control](#) Studies at the University of Nottingham in England, and colleagues assigned 1,050 women who were 12 to 24 weeks pregnant to one of two groups. Members of one group received behavioral smoking cessation support and wore a [nicotine patch](#), while the other group received the counseling but wore a patch that looked like the real thing but did not contain [nicotine](#).

Women given the active nicotine patch had higher quit rates (about 21

percent) during the first month of the study than women in the [placebo group](#) (nearly 12 percent). But by delivery, both groups' quit rates were about the same -- 9.4 percent for those wearing the real patch and 7.6 percent for those wearing the look-alike, not a statistically significant difference.

One possible reason: Many of the women discontinued wearing the patch. Only a little more than 7 percent of women assigned to the [nicotine-replacement therapy](#) and fewer than 3 percent given the placebo used the patch for more than a month, the study authors noted.

[Nicotine replacement](#) therapy -- which can include patches, gum or [nasal sprays](#) -- has been shown to help people who aren't pregnant quit smoking, according to background information in the article. But the same doesn't appear to be true in [pregnant women](#), experts said.

"The nicotine patch improved short-term but not long-term quit rates," said Dr. Cheryl Oncken, a professor of medicine, [obstetrics and gynecology](#) at the University of Connecticut School of Medicine in Farmington, Conn., who wrote an accompanying editorial. "The other significant finding is that there was low compliance. Women didn't really take the patch for any period of time. So you really can't tell from this data whether it's safe or effective for use in pregnancy."

The study is published in the March 1 issue of the *New England Journal of Medicine*.

The U.S. Centers for Disease Control and Prevention does not recommend nicotine replacement in pregnant women, and ob-gyns typically use it as a last resort -- only when women are unable to quit on their own or with counseling, said Dan Jacobsen, a nurse practitioner at the Center for Tobacco Control at the North Shore-LIJ Health System in Great Neck, N.Y.

Safety concerns are one reason nicotine replacement isn't used all that often, Jacobsen said.

Smoking during pregnancy is associated with low birth weight babies, which can impact their growth and development throughout life. Smoking has also been associated with miscarriage, stillbirth and sudden infant death syndrome.

But the nicotine itself may affect the fetus. A study in the March issue of *Pediatrics* by researchers in the Netherlands found that exposure to nicotine -- either from cigarettes or nicotine replacement therapy -- was associated with a significantly increased risk of colic.

Colic, which usually starts when a baby is a few weeks old, is when an infant cries excessively and inconsolably for at least three hours a day, more than three days a week, for more than three weeks.

Experts believe nicotine may alter serotonin receptors in the gut.

Other research suggests that pregnant women clear nicotine from their bodies more rapidly, Jacobsen said. That may make the normal dosing in a nicotine patch (15 milligrams daily) insufficient to quell cravings, he suggested.

Higher levels of nicotine than the standard dose might be the answer for pregnant women, but such a study would raise safety concerns, Jacobsen noted.

For her part, Oncken said, it would be useful to know whether women in the study started smoking again, and then quit using the patch; or if they quit using the patch and then started smoking again. Knowing which came first would help determine whether future [smoking-cessation](#) efforts should focus on encouraging women to continue to use nicotine

replacement therapy, or that the medication itself (the nicotine) just doesn't help pregnant women alleviate the urge to smoke.

Either way, Jacobsen said, "nicotine replacement doesn't seem to be the answer for pregnant women. In certain patients, maybe. But we need to work with them individually to try to help them quit."

He also noted that the women in the study appeared to be very addicted smokers -- more than half had their first cigarette within 15 minutes of waking, an indication of how nicotine dependent people are, and about 92 percent had their first cigarette within an hour of waking, Jacobsen said.

The women smoked an average of a pack a day; three-quarters had a partner who smoked; and the average age of having left school was 16.

"The demographics tend to suggest this is a more addicted group," Jacobsen said.

**More information:** [Full Text \(subscription or payment may be required\)](#)  
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The [March of Dimes](#) has more on the dangers of smoking during pregnancy.

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