

PRE-/POST-NATAL CARE & SMOKING



Key Messages for Health Care Providers and Policy Makers

Overview

Cigarette smoking during pregnancy and breastfeeding is associated with many negative effects on the mother and on the fetus and infant. A recent survey¹ found the prevalence of Canadian women who smoked during pregnancy was 10.5% and these women consumed an average of 7 cigarettes per day.

The Link between Smoking and Pre-/Post-Natal Care

- A Canadian survey¹ found that smoking during pregnancy was associated with low socio-economic status, not being an immigrant, and being single during the pregnancy. Women who lived with someone who smoked were also more likely to smoke during pregnancy. Not attending prenatal classes and experiencing stressful events before or during pregnancy also increased the mothers' odds of smoking during pregnancy.
- Smoking during pregnancy is associated with low birth weight, which increases the risk of premature delivery and consequences associated with prematurity, and increases the susceptibility to respiratory infections.^{2,3}
- Smoking during pregnancy is associated with premature rupture of membranes, placental abruption, placenta previa, stillbirths, and increased infant mortality.^{2,3,4,5}
- Compared with those who do not smoke, women who smoke during pregnancy have a 54-130% increase in the prevalence of newborns weighing < 2,500 g.²
- A review of studies⁴ showed that compared to those who do not smoke, for women who smoke during pregnancy:
 - The relative risk for ectopic pregnancy is 1.5-2.5.
 - The risk of miscarriage is increased by 20-80%.
 - The relative risk for placental abruption is 1.4-2.4.
 - The relative risk for placenta previa is 1.5-3.0.
 - The birth weight of the newborn is, on average, 200 g lighter.
 - The relative risks for preterm delivery is 1.2-1.6.
 - The relative risk for sudden infant death syndrome (SIDS) is 2.0-3.0
- For women who smoke during lactation:⁴
 - The child is exposed to the many chemicals (some of which are carcinogenic) present in cigarette smoke.
 - Nicotine is a psychoactive substance, which when secreted in the breast milk, can potentially affect the heart rate and respiratory rate of the newborn.
 - Smoking is associated with lower basal prolactin levels, which may decrease milk production.

Impact

- An American study⁶ found that smoking adds over \$700 in neonatal costs.
- Approximately 25-40% of pregnant women who smoke stop smoking during pregnancy. However, at 6 months postpartum smoking relapse rates range from 33-79%.⁷
- Smoking cessation interventions can reduce the number of women smoking during pregnancy, and can save \$3 in health-related costs for every \$1 spent.⁸

Actions

- The CAN-ADAPTT Guideline Development Group⁹ recommends that health care providers should:
 - Ask patients about tobacco use status on a regular basis.
 - Clearly advise patients or clients to quit.
 - Assess the willingness of patients or clients to begin treatment to quit smoking.
 - Offer assistance to every tobacco user who expresses the willingness to begin treatment to quit.
 - Conduct regular follow-up to assess response, provide support and modify treatment as necessary.
 - Refer patients or clients to relevant resources as part of the where appropriate.

Helpful Resources

- Health Canada. Expecting to Quit: A Best Practices Review of Smoking Cessation Interventions for Pregnant and Postpartum Girls and Women. <http://www.hc-sc.gc.ca/hc-ps/pubs/tobac-tabac/expecting-grossesse/intro-eng.php>
- Health Canada. Quit Smoking Telephone Counselling Protocol for Pregnant and Postpartum Women. <http://www.hc-sc.gc.ca/hc-ps/pubs/tobac-tabac/protocol/lit-doc-eng.php>
- CAN-ADAPTT. Pregnant and Breastfeeding Women. <http://www.can-adaptt.net/English/Guideline/Pregnant%20and%20Breastfeeding%20Women/Home.aspx>
- Centers for Disease Control and Prevention. Trends in Smoking Before, During, and After Pregnancy – Pregnancy Risk Assessment Monitoring System (PRAMS), United States, 31 Sites, 2000-2005. *Morbidity and Mortality Weekly Report* 2009;58:SS-4. <http://www.cdc.gov/mmwr/pdf/ss/ss5804.pdf>

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