

# Appendix

## GIRLS, WOMEN, HEALTH AND TOBACCO USE

*Appendix references are located in a separate section of the Baby Steps Help Guide e-resource.*

*Participant handout references are not included, but are available upon request by contacting the [tru@ahs.ca](mailto:tru@ahs.ca).*

### Effects of Tobacco on Girls and Women's Health

The risks that come with using tobacco are greater for women than they are for men, even with lower levels of tobacco or frequency of use.

**Addiction:** Women are at greater risk of becoming addicted to nicotine, and becoming addicted at lower levels of use.<sup>[1]</sup>

**Respiratory illnesses and cancers:** Women are at greater risk of developing respiratory illnesses from tobacco use. Women who use or are exposed to second-hand smoke are more vulnerable to developing chronic obstructive pulmonary disorder (COPD) compared to men, due in part to hormonal differences and women tending to have smaller airways and lung volumes.<sup>[2-4]</sup> Women are also more likely to develop chronic bronchitis rather than the emphysema form of COPD.<sup>[4]</sup> Among COPD patients, women report greater lung-function decline and more severe symptoms compared to men,<sup>[3]</sup> and early onset of severe COPD is more common among women than men.<sup>[5]</sup> Women are also more susceptible to smoking-related lung cancers, including squamous cell, adenocarcinoma and small-cell carcinoma.<sup>[6,7]</sup> Smoking causes about 80% of all lung-cancer deaths in women.<sup>[8]</sup>



**Heart disease:** Women who smoke experience an increased risk of coronary heart disease compared to men.<sup>[9]</sup> There is some evidence that women who smoke may also be more susceptible to developing elevated blood lipids, a precursor to atherosclerosis, compared to men.<sup>[10]</sup> Among women and men who smoke and who have experienced a heart attack, women experience greater reductions in life expectancy.<sup>[11]</sup>

**Breast cancer and other cancers:** Both women who smoke and women who are exposed to second-hand smoke are at an increased risk for breast cancer, compared to women who do not smoke or who are not exposed.<sup>[12-14]</sup> In addition to lung and breast cancer, women who smoke have increased risks of cancers of the mouth and throat, esophagus, larynx (voice box), bladder, pancreas, liver, colon, rectum, cervix and kidneys. Smoking also appears to increase the risk for some types of ovarian tumours.<sup>[15]</sup>



**Reproductive health issues:** Smoking among women is linked to lowered fertility, an increased risk of osteoporosis and a range of other reproductive health issues.<sup>[16,17]</sup> Nicotine replacement therapy (NRT), especially gum and patches, may not be as effective for women, due to hormonal, physiological and pharmacokinetic differences that exist and become more prevalent in pregnancy.<sup>[18]</sup> Tobacco withdrawal symptoms and responses to tobacco cessation pharmacotherapy vary by menstrual cycle phase, and women experience greater withdrawal symptoms during the luteal phase.<sup>[19]</sup>

**Pregnancy:** The effects of tobacco use and exposure for pregnant women include an increased risk of ectopic pregnancy, miscarriage, preterm labour, premature rupture of membranes and placental problems (previa and abruption). Tobacco use during pregnancy not only affects the health of the woman, fetus and newborn, but also continues to affect the health of the child over time.<sup>[20]</sup>

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**Mental-health issues:** There is some evidence that tobacco use is associated with more depressive symptoms in adolescent girls.<sup>[21]</sup> There is also evidence linking smoking, depressive symptoms and menstrual symptoms in girls.<sup>[22]</sup>

**Other health issues:** Compared to men, women who smoke experience higher rates of asthma and higher rates of urinary incontinence.<sup>[23]</sup> Heavy smoking has also been associated with lower bone development among adolescent girls.<sup>[24]</sup>

### Gendered Influences on Tobacco Use and Barriers to Quitting

There are gender-related factors affecting the meanings of and reasons for smoking among women. There is some evidence that nicotine may have a more calming, anti-anxiety effect for women compared to men, and women may be more likely to smoke to manage a negative emotional state.<sup>[25,26]</sup> Women as a group have also been targeted by the tobacco industry, which has portrayed smoking as a means of achieving empowerment and beauty.<sup>[27]</sup> There are numerous studies that indicate women face unique barriers to stopping the use of tobacco.<sup>[23,28,29]</sup> These barriers include:

- Women may be concerned about the potential for weight gain.<sup>[23,30]</sup>
- Women are more likely to experience interpersonal violence and depression.<sup>[31]</sup>
- Women experience greater rewarding effects from nicotine and more intense stress from withdrawal than men.<sup>[26]</sup>
- Male partners have been shown to provide less effective cessation support to women than women give to men.<sup>[32]</sup>
- Women may be more susceptible to environmental cues (e.g., friends and moods) associated with the tobacco-use ritual.<sup>[26]</sup>
- Women have significant non-pharmacologic cues/motives that reinforce tobacco use (e.g., for socialization, as a break from care-giving stress).<sup>[33,34]</sup>
- Some women enjoy the feeling of control associated with tobacco use.<sup>[35]</sup>



### Addressing Sex and Gender Influences on Girls' and Women's Use of Tobacco

Approaches that consciously address sex, gender and equity will improve smoking cessation and reduction outcomes. A woman-centred approach that focuses on the woman's health, strengths, interests, needs and self-efficacy is crucial. In addition, gendered approaches to addressing trauma and harm reduction are recommended. Gender-transformative approaches that aim to reduce tobacco use by examining and challenging stereotypical gender norms and imbalances of power are also an important route to improving equity and health at the same time.<sup>[36]</sup> Further integration of sex and gender analysis in research, policy and program planning is essential to effectively address women's and girls' tobacco use.