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## OUTLINE

### Aids to Quit During Pregnancy and Breastfeeding

*Knowledge Topic 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).*

<b>Goal</b>	To increase participants' knowledge of the effects and safety of medications and alternate therapies to help with quitting tobacco during pregnancy and while breastfeeding.
<b>Objectives</b>	<p>By the end of the learning session, participants will</p> <ol style="list-style-type: none"> <li>1. be able to identify medications and alternate therapies for quitting tobacco, as well as their relative safety for pregnant women and developing babies</li> <li>2. be able to identify medications to help with quitting and their relative safety when used during breastfeeding</li> <li>3. understand how tobacco smoke interacts with several common medications and foods</li> <li>4. be able to identify medications they may be taking that interact with tobacco smoke or their foods</li> </ol>
<b>Presentation approach</b>	<p>As a one-to-one service provider or group facilitator, decide how you will share information with, and support reflection by, participants. You may wish to:</p> <ul style="list-style-type: none"> <li>• print and hand out the participant resources</li> <li>• share the participant resources using a laptop, tablet or cell phone</li> <li>• visit the websites and links with participants, in order to point out where they can find additional information</li> <li>• engage with participants in one large or several small discussion groups (if in a group setting)</li> <li>• have participants write down what they have learned on the handout sheets provided, or share their learning verbally</li> </ul>
<b>Facilitator/ service provider backgrounders</b>	<p>There are five facilitator background documents and three participant resources for you to review to prepare for this topic:</p> <ol style="list-style-type: none"> <li>1. <i>The Addictive Nature of Tobacco</i></li> <li>2. <i>Tobacco Cessation Medications</i></li> <li>3. <a href="#">Tobacco Cessation Toolkit: Summary of Cessation Pharmacology</a></li> <li>4. <a href="#">Tobacco Cessation Toolkit: Drug Interactions with Tobacco Smoke</a></li> <li>5. <a href="#">Healthy Parents Healthy Children: Caffeine Guidelines for Pregnant Woman</a></li> </ol> <p>The appendices on "Girls, Women, Health and Tobacco Use" and "Using a Principle-Based Approach" may also be helpful to review.</p>
<b>Participant Resources</b>	<ol style="list-style-type: none"> <li>1. Understanding Alternative and Complementary Therapies</li> <li>2. Cessation Aids While Pregnant and Breastfeeding</li> <li>3. Cessation Aids While Pregnant and Breastfeeding (worksheet)</li> </ol>
<b>Additional resources and Information</b>	<p>Individual medication sheets can be found in patient care handouts on <a href="http://myhealth.alberta.ca">myhealth.alberta.ca</a> and printed for client use</p> <p>Please note that over-the-counter NRTs are indicated as "off-label" use for pregnant and postpartum women. Always refer participants to their doctor/pharmacist before they use this medication.</p>

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## FACILITATOR BACKGROUNDER

### The Addictive Nature of Tobacco

Tobacco use is more than just a bad habit. The nicotine in tobacco products like cigarettes, e-cigarettes and smokeless tobacco causes a physical and psychological addiction. Studies have shown that a greater percentage of those who use tobacco become addicted than those who use drugs like cocaine.<sup>[1]</sup>

#### Why Nicotine Is Physiologically Addictive

- Nicotine acts on the brain and alters a person's brain chemistry. It is a stimulant, and affects concentration.
- People use it compulsively. Few people who use tobacco are able to use it only "now and then."
- The amount of nicotine someone who uses tobacco takes in each day tends to increase over time.
- One of the ways a drug is determined to be addictive is if it reinforces a cycle of drug-taking behaviour. Nicotine is a reinforcing drug because it causes many users to continue using tobacco to avoid expected unpleasant withdrawal symptoms even if their health is in danger.



#### Why Nicotine Is Physiologically Addictive

There is pleasure associated with using tobacco: the pleasure of handling a cigarette, the oral satisfaction and the comfort of a quick fix in times of boredom, frustration, anger or stress. Nicotine receptors in the brain release the same chemicals in the brain as having sex and eating good food. If the pleasures of using tobacco outweigh the perceived pain or negative aspects, then the person will be unmotivated to quit.

#### Effects of Nicotine on Pregnant Women

- Pregnant women appear to metabolize and clear nicotine from their bodies faster than non-pregnant women do. This makes quitting more difficult.<sup>[2]</sup>
- The physiological adaptations in pregnancy that accelerate nicotine metabolism may also cause more negative feelings of so-called "nicotine hunger" and other unpleasant symptoms associated with nicotine withdrawal.<sup>[3,4]</sup>
- As a result, some pregnant women who use nicotine replacement therapy find they need a higher dosage to help them manage withdrawal symptoms.

#### Drugs that Interact with Tobacco Smoke

Tobacco smoke interferes with the effectiveness of many commonly used drugs. Quitting smoked tobacco (i.e., not smokeless) can reduce the speed at which the body metabolizes, or uses, drugs that have been consumed. This is true for caffeine, which is found in many foods (e.g., cola drinks, coffee, tea, chocolate, power drinks). It is also true for the following types of medications:<sup>[5,6]</sup>

- those taken for mental health concerns (e.g., clozapine, fluvoxamine, olanzapine)
- those taken for diabetes (e.g., insulin)
- those taken for asthma (e.g., theophylline, inhaled corticosteroids)

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## FACILITATOR BACKGROUNDER The Addictive Nature of Tobacco

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- those taken for diabetes (e.g., insulin)
- those taken for asthma (e.g., theophylline, inhaled corticosteroids)



Prior to a quit attempt, clients should be advised to decrease their consumption of caffeine by about 50%.<sup>[7]</sup> It is also recommended they consult with their prescribing health professional or pharmacist to prepare for any potential changes in medication they may need to watch out for as they stop using smoked tobacco, or if they live with a person who has decided to stop smoking or make their home or vehicle tobacco-free.

### *Principles*

1. *Woman-centred*
2. *Trauma-informed*
3. *Harm-reducing*
4. *Equity-informed*

For more information, see chapter 3 of this guide, the backgrounder on medications listed below, and the AHS Tobacco Free Futures pharmacology handouts.

Please note that when presenting any information about tobacco with pregnant women, it is important to do so in a way that is collaborative, empathetic and empowering. Be sure to ask about what she already knows, invite curiosity for learning more, check in about how the information shared is fitting for her, invite her to ask questions and go at a pace that she finds comfortable.

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## FACILITATOR BACKGROUNDER

### Tobacco Cessation Medications

#### Why Consider Nicotine Replacement Therapy (NRT)?

Because many people have a strong physical addiction to nicotine, they may fear the symptoms of withdrawal and consider them a strong deterrent to making an attempt to quit. Women experience greater rewarding effects from nicotine and more intense stress produced by withdrawal than men do.<sup>[8]</sup> Some individuals may have attempted quitting without any aids in the past without long-term success. NRTs reduce the physical craving for nicotine and may help give people the confidence they need to try again.

NRTs can provide short-term reductions in the physical symptoms of withdrawal,<sup>[9]</sup> and may improve the chances of long-term success by up to two times. They are less addictive than commercial tobacco products. Another important feature of NRTs is that they provide a cleaner source of nicotine—that is, a regulated dose of nicotine without all of the additional chemicals and chemical compounds found in commercial forms of tobacco. NRTs can help to break the cycle of addiction for many people who use tobacco products.

There are three main drawbacks for women using NRTs:

1. Some people, especially pregnant women, will still experience some withdrawal symptoms because NRTs offer lower and slower doses of nicotine.<sup>[10,11]</sup>
2. NRTs work differently for women. The monthly cycles and changes to a woman's body during pregnancy may make NRTs less effective.<sup>[12]</sup>
3. NRTs alone are not as effective as when they are used in combination with therapy to change behaviour.<sup>[9,12,13]</sup> (Remember that for pregnant and postpartum women, NRTs should only be used when counselling alone is ineffective.)

#### NRT Use Among Pregnant Women

The Canadian Guideline for Pregnancy and Breastfeeding says that NRTs can be considered a [second-line option for pregnant and breastfeeding women](#) who have been unable to quit using counseling interventions.

- There is a lack of consistency among clinical-guideline recommendations on the use of NRTs as a second-line intervention, due to limited evidence on the effectiveness and safety of NRT during pregnancy.<sup>[13]</sup> The point at which counselling can be determined to be ineffective is subject to the professional medical opinion of the provider and the personal motivation of the woman. This must be assessed on an individual basis in consultation with a prescribing authority, such as a physician, pharmacist or nurse practitioner.
- Some evidence from randomized controlled trials indicates that NRT may be effective in pregnancy for decreasing tobacco use and improving pregnancy outcomes.<sup>[13]</sup> However, NRT is generally less effective for pregnant women than for the general population, likely due to the pharmacokinetic and physiological changes that occur during pregnancy, which may necessitate higher doses.<sup>[12]</sup>
- In terms of safety, the benefits of NRT seem to outweigh the potential risks of using tobacco products equivalent to 10 cigarettes or more per day. While nicotine exposure through NRT likely has adverse effects on a fetus during pregnancy, tobacco use exposes the fetus to more toxic chemicals than nicotine alone.<sup>[9]</sup>



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## FACILITATOR BACKGROUNDER Tobacco Cessation Medications

- NRT also typically provides less nicotine than tobacco smoke.<sup>[14]</sup> However, the available data cannot support or exclude an association between first-trimester NRT use and an increased risk of congenital defects.<sup>[13]</sup>
- When NRT is recommended to a pregnant woman, low-dose, intermittent-delivery NRTs (e.g., lozenges, gum, buccal inhalers, mouth spray) are preferred over continuous dosing from the patch.<sup>[13,15,16]</sup>
- If the patch is used, the woman should remove it at night.<sup>[17]</sup>
- NRT should be discontinued if the woman continues to use tobacco at the same rate, and in that case alternative treatment should be considered.<sup>[18]</sup>
- As with all medications prescribed during pregnancy, close monitoring is required throughout the woman's use of NRT.



### Breastfeeding and NRT Use

- The importance of continuing to breastfeed, regardless of a woman's tobacco-use status, should also be stressed. The benefits of breastfeeding to both mother and child outweigh the risks associated with nicotine exposure through tobacco use or NRT.<sup>[19]</sup>
- Nicotine freely passes in and out of breast milk. Factors that influence the amount of nicotine ingested by the infant include the concentration of nicotine in the maternal blood (which is affected by the type of tobacco product consumed), frequency of breastfeeding and the time between tobacco use and breastfeeding.<sup>[20]</sup>
- Breastfeeding women, like pregnant women, should use intermittent rather than continuous-dosage NRTs, and at the lowest recommended dosage.
- Nicotine is not a harmless drug. Nicotine has effects on the developing brain of a fetus, young children and teens.<sup>[9]</sup> It should be used with caution, and under the supervision of a qualified medical professional. NRT use while breastfeeding is considered safer than continuing to use tobacco products. It is recommended to help women remain tobacco-free after their baby is born and to help with cessation.<sup>[20]</sup>



### Bupropion and Varenicline

- There is limited evidence for the safety and effectiveness of both bupropion and varenicline for tobacco cessation during pregnancy and while breastfeeding. For more information, see the "Reproductive Years" chapter in the Tobacco Free Futures Guidelines.
- Based on this evidence, it is recommended that bupropion and varenicline only be considered for pregnant and breastfeeding women after behavioural interventions and NRT have failed.<sup>[12]</sup> Prior to initiating either treatment, advise women that current research does not conclusively demonstrate the efficacy and safety of either of these medications in pregnancy and breastfeeding. Discuss the risks and benefits of using them versus using tobacco.<sup>[13]</sup>

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## FACILITATOR BACKGROUNDER Tobacco Cessation Medications

### In summary

According to the [CAN-ADAPTT Pregnancy and Breastfeeding guidelines](#) <sup>[21]</sup>, if behavioural and cognitive therapies are ineffective, then intermittent-dosing NRTs (e.g., lozenges, gum, spray) are preferred over the continuous dosing from the patch. For more information, visit: [www.can-adaptt.net](http://www.can-adaptt.net).

### A Word of Caution

Nicotine is not a harmless drug. It has effects on the developing brain of a fetus, young child or teenager.<sup>[9]</sup> It should be used with caution, and under the supervision of a qualified medical professional. NRT use while breastfeeding is considered safer than continuing to use tobacco products and is recommended to help women remain tobacco-free after their baby is born to help with cessation.<sup>[20]</sup>

Using NRTs during pregnancy should be managed with assistance from the woman's physician. Refer clients interested in cessation medication to their doctor or pharmacist for consultation.

### Health Provider Resources

- Summary of Cessation Pharmacology form in the [Tobacco Cessation Toolkit](#), with administration points and common side effects.
- For more information on prescriber training for pregnant and postpartum women, the free [AlbertaQuits Learning Series, Tobacco Cessation Pharmacology Workshop](#) and other e-learning unit. Visit the "Learning" section for information on how to register and access trainings.



### Participant Resources

The following print resource can be [ordered](#) for participants:

Let's Talk NRT and Quitting Aides pamphlet

[Alberta Drug Benefit Medication Coverage](#) - clients may be interested to know what medications are covered under current drug plans, for how long or for how much.



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## PARTICIPANT HANDOUT

### Cessation Aids During Pregnancy and Breastfeeding

Alternative therapies are those that were not originally intended to help people stop using tobacco. They have very little or no scientific evidence to support their effectiveness.

Complementary therapies are those that can be used alongside approved treatments. They may or may not have scientific evidence to support their effectiveness to help you become tobacco-free.

#### Cytisine, Clonidine and Nortriptyline

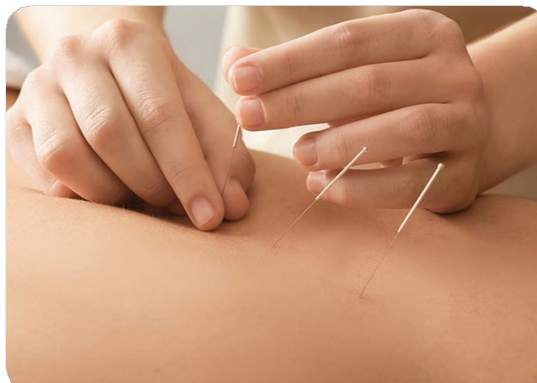
Cytisine has been used as a medication to help people quit tobacco in Europe since the 1960s. One of its benefits is that it is very inexpensive, but it is a common cause of upset stomach. There is limited evidence for its effectiveness. It shows promise, but more trials are needed.

Clonidine has been found to be effective for some people, but its usefulness is limited by many reported side effects.

Nortriptyline shows some evidence for being effective, but because of its many potential side effects, it should only be considered as a second-line therapy after trying Zyban or NRT. People are likely to find NRT or non-nicotine medications more effective and easier to tolerate.

#### Acupuncture, Acupressure, Laser Therapy and Electrical Stimulation

There is no consistent evidence that acupuncture or the related techniques of acupressure, laser therapy and electrical stimulation increase the number of people who successfully quit smoking. However, some techniques may be better than doing nothing, at least in the short term. While they are likely to be less effective than evidence-based interventions, they are safe when correctly applied, and might be helpful for some as a complementary therapy.



For more information, visit:

[http://summaries.cochrane.org/CD000009/TOBACCO\\_do-acupuncture-and-related-therapies-help-smokers-who-aretrying-to-quit#sthash.AsGlm2IJ.dpuf](http://summaries.cochrane.org/CD000009/TOBACCO_do-acupuncture-and-related-therapies-help-smokers-who-aretrying-to-quit#sthash.AsGlm2IJ.dpuf).

#### Hypnosis

There has not been enough research to support hypnosis alone as an effective treatment for quitting tobacco, or to decide whether it is as effective as counselling.

#### Herbal Therapies and Supplements

Scientific testing has found that using St. John's Wort did not increase tobacco abstinence rates.

#### Transcranial Direct Current Stimulation (TDCS)

TDCS is a non-invasive brain stimulation technique intended to decrease cravings for nicotine. While some preliminary research has shown promise, further research is necessary to prove that it is effective as a therapy for quitting tobacco.

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## PARTICIPANT HANDOUT

### Cessation Aids During Pregnancy and Breastfeeding



#### Electronic Cigarettes

Electronic smoking devices (including vaping pens) mimic the look, feeling, handling and sometimes taste of cigarettes. They do not contain tobacco, but often contain nicotine, even when labeled as nicotine-free. While these products are marketed as safe to use anywhere and as effective in helping people quit tobacco, it is too soon to recommend them as safe and effective aids to quitting. Health Canada advises Canadians not to purchase or use e-cigarettes, because these products may pose health risks and have not been fully evaluated for safety, quality and effectiveness.

The liquid used in these devices (also known as “e-juice”) has been shown to contain many of the same harmful chemicals found in tobacco products, including irritants, toxins that damage a person’s DNA, and carcinogens.

Early studies show that using e-cigarettes may help some people quit smoking. We still don’t know how helpful they are and more research is needed. We do know that the health risks are lower when you completely switch from smoking cigarettes to using e-cigarettes. Health Canada does not recommend e-cigarette use for young people, pregnant women and those that don’t use cigarettes. The Tobacco and Vaping Products Act (TVPA) that became law in Canada in May 2018 provides a framework for the manufacture, sale, labelling, and promotion of tobacco and vaping products.

For more information visit Health Canada’s [Vaping Page](#).

For more information, see:

- Getting the Facts about Tobacco (topic #1 in the Baby Steps Help Guide)
- Electronic Cigarettes and Vaping Products [myhealthab.ca](http://myhealthab.ca)



#### 1. Nicotine Replacement Therapy (NRT)

NRTs, including gum, patches, lozenges, inhalers and mouth spray, are usually considered for people whose use tobacco heavily (i.e., more than 10 cigarettes per day). If you aren’t able to quit using counselling and willpower alone, you may consider whether NRTs might help you succeed. These products help reduce tobacco cravings by replacing the nicotine from your cigarette or other tobacco product. Although doctors are unsure whether NRTs are safe to use while you are pregnant or breastfeeding, low and intermittent NRTs may be considered by your health professional as a way to reduce harm from tobacco use and difficult withdrawal symptoms. Always ask your doctor if you should take this medicine while you are pregnant or breastfeeding. Keep these and all medicines out of the reach of children.

Reasons NRTs are considered Relatively Safer to Use While Pregnant

- Can have benefits during pregnancy if your doctor agrees with you using them
- Generally considered safer to use than cigarettes and other tobacco products
- Will reduce the baby’s exposure to other harmful chemicals found in cigarette smoke and other forms of tobacco
- Especially useful for people who use tobacco heavily
- Should only be used with the advice and assistance of a doctor



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## PARTICIPANT HANDOUT

### Cessation Aids During Pregnancy and Breastfeeding

#### Reasons NRTS are considered Relatively Safer to Use While Breastfeeding

- Nicotine in these products are passed on to the baby through breast milk—however, when NRTs are used as directed, the baby will be exposed to less nicotine exposure than they would from the woman's regular tobacco use
- Considered a safer alternative to cigarettes and other forms of tobacco that contain a lot of chemicals and cancer-causing agents, especially for people who use tobacco heavily

#### 2. Nicotine-Free Medications

Nicotine-free medications help reduce the cravings for tobacco. They must be prescribed by your doctor. Examples of nicotine-free medications include bupropion SR and varenicline (Champix).

##### Safe to Use While Pregnant?

- It is not known if these drugs are safe to use while you are pregnant
- Your doctor may not want to prescribe these drugs

##### Safe to Use While Breastfeeding?

- These drugs are passed on to the baby through breast milk
- They should not be used during breastfeeding

#### 3. Acupuncture and Laser Therapy

This method is based on the Chinese theory of energy pathways. Needles or lasers are poked into the skin at special points to reduce the taste for tobacco or the craving for nicotine. Some reports suggest acupuncture may help people who really want to reduce or quit tobacco completely, and the effect may last for up to five years. Both therapies are offered in private clinics. A fee for the service is charged. However, there is little scientific evidence to support the long-term success or effectiveness of this type of therapy.



#### 4. Hypnosis

This method puts a person into a relaxed state where they are given suggestions to change their attitudes toward tobacco use. This therapy is offered in private clinics for a fee. There is some scientific evidence to support the success or effectiveness of this type of therapy.

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## PARTICIPANT HANDOUT

### Cessation Aids During Pregnancy and Breastfeeding

#### 5. Self Help

[AlbertaQuits](http://albertaquits.ca) is a free website that provides information, resources and activities to help you prepare to quit smoking for good. Complete a personalized change plan, do a practice quit or learn more about supports like apps and texting programs.

#### 6. Group Support

QuitCore is a free group support program that provides Albertans (18+) with the tools and skills needed to quit using tobacco for good. The program consists of six 90-minute sessions over a period of up to nine weeks at various locations around the province. For information on how to register, visit: [www.albertaquits.ca](http://www.albertaquits.ca).



#### 7. Helpline Support

The AlbertaQuits Helpline is a free tobacco-cessation service for all Albertans, open 8 a.m. to 8 p.m., seven days per week. Call 1-866-710-QUIT (7848) to receive confidential, nonjudgmental support. Trained cessation counsellors will help you develop a change plan, deal with cravings and provide ongoing support to keep you motivated. Translation services are available in 180 languages through an interpreter.

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## PARTICIPANT WORKSHEET

### Cessation Aids During Pregnancy and Breastfeeding

**Topic:** Tobacco cessation aids during pregnancy and breastfeeding

**Task:** After reviewing the participant handout information sheets:

1. Review each question on this activity sheet.
2. Talk about the answers with your group.
3. Use your handouts to help you find the answers.
4. Write your answers in the space provided.

#### Questions:

1. If stopping tobacco with counselling alone does not work, what are some medications you can try that are relatively safe to use during pregnancy?

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2. If stopping tobacco with counselling alone does not work, what are some benefits of using medication to quit while you're pregnant?

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3. Are there any risks that come with using medications or alternative therapies?

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## PARTICIPANT WORKSHEET

### Cessation Aids During Pregnancy and Breastfeeding

4. List any foods or medications you currently use that may react with tobacco smoke

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5. If stopping tobacco with counselling doesn't work, what are some medications you can try that are safe to use during breastfeeding?

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6. If stopping tobacco with counselling doesn't work, what are some benefits of using medications to stop tobacco while you're breastfeeding?

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