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## **Breastfeeding and Cigarette Smoking**

### **Fact sheet for Health Care Professionals**

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This factsheet will identify the importance of breastfeeding, the adverse effects of smoking cigarettes and the role of the health care professional in supporting a breastfeeding mother and her partner to quit cigarette smoking. This factsheet will offer helpful tips and suggestions to mothers and their partners to make a successful quit attempt; it will discuss ways to reduce the effects of second hand smoke on their baby and will also discuss the possible role of nicotine replacement therapy (NRT).

There is a body of evidence to support the importance of breastfeeding for both maternal and child health outcomes (Victora *et al*, 2016). Breast milk is the most natural food because of its unique properties and it offers the newborn strong protection against infections. Children who are not breastfed have increased incidence and severity of childhood and adult illnesses. These include infectious diseases (including otitis media, gastroenteritis, and lower respiratory tract infections), sudden infant death syndrome (SIDS), childhood cancer (including leukemia), type 1 and 2 diabetes and obesity. Longer breastfeeding is associated with higher performance on intelligence tests among children and adolescents, controlling for maternal IQ. If a baby is born premature breastmilk is really important for them and gives protection to infection particularly an infection in their gut called Necrotising Enterocolitis. Mothers who breastfeed may return to pre pregnancy weight more quickly, ovulation may be delayed, there is less risk of pre-menopausal breast and ovarian cancers, and there is reduced risk of developing type 2 diabetes. There is evidence to suggest that Post Natal Depression is associated more with mothers who do not breastfeed or those who breast feed for a very short duration.

Studies cited by Bailey and Wright (2011) have found decreased rates of breastfeeding initiation and continuation among mothers who smoke. Some of the reasons purported for these decreased rates include reduced milk production, effects on milk ejection reflex and maternal anxiety on the effects of smoking on her baby and milk production. 'Smoking was associated with lower milk lipid and protein concentrations and that the parity number and BMI were associated with a change in milk lipid and proteins content respectively' (Bachour *et al* 2012, p.179). 'Most sources endorse promotion of breastfeeding in the setting of maternal smoking while vigorously supporting smoking cessation' (Reece-Stremtan, 2015, p. 138).

Smoking cigarettes while breastfeeding 'causes adverse changes to the milk's composition by not only reducing its protective properties, but also affecting the infant's response to breastfeeding and breastmilk' (Napierala *et al* 2016, p. 321). 'Nicotine and other compounds are known to transfer to the infant via milk, and considerable transfer of chemicals via second hand smoke also occurs when infants are exposed to environmental tobacco smoke. Increases in the incidence of respiratory allergy in infants and in SIDS are just two significant well known risks of infant exposure to environmental tobacco smoke' (Reece-Stremtan *et al* 2015, p. 138). Second hand smoke is also referred to as passive smoking and this is smoke

that has been exhaled or breathed out by a person smoking. Third hand smoke describes 'cigarettes' lingering after effects which are just as harmful to children as second hand smoke and can last a few days or even weeks after a cigarette is smoked' (Smith, 2009,p. 2). It is the role of the health care professional to 'make every contact count' if a pregnant woman, a mother or her partner smokes cigarettes

- The mother or her partner should be strongly encouraged and supported to stop or quit smoking, and not relapse after pregnancy. The multi-agency initiative '30 Second Stop Smoking Advice' advocates the most effective action a health care professional can take is Ask, Advise and Act.
- If despite the above advice, information and support, the mother continues to smoke, she is encouraged and supported to breastfeed her baby. She is also supported to ensure to avoid exposure of her baby to second and third hand smoke. Information regarding smoking reduction and timing of smoking and breastfeeding should be discussed with the mother. The baby would need careful attention and growth monitoring to ensure effective production and transfer of breastmilk is occurring.

**Ask** - Every patient is asked about tobacco use at every health care contact

**Advise** - They are advised quitting is the single best thing to do to improve health

**Act** - They are referred to their local HSE Smoking Cessation Officer for one - to - one support either for face to face or telephone where applicable. For information where this is available visit [www.quit.ie](http://www.quit.ie)

In areas where there is no local HSE service patients are referred to the

HSE Quit Team on Freephone **1800 201 203**. [www.quit.ie](http://www.quit.ie) details of local services will also be found on this site.

The HSE Quit Team are contactable by phone, email, Twitter, and Facebook. There is also an online QUIT plan on their website and their Facebook support group. This free and evidenced based service offers a standard treatment programme where smoking cessation support is provided for 12 months.

It is important that mothers and their partners are at all times treated with dignity and respect and the support provided by the health care professional is motivational, supportive, and non-judgmental. Evidenced based information should be provided including written information. While some mothers and their partners may quit successfully some may have multiple attempts or may reduce the number of cigarettes smoked. A smoker is twice as likely to quit for good if they get the right support from a Smoking Cessation Officer, trained QUIT smoking advisor or other health care professional such as their GP, Midwife, Public Health Nurse or Pharmacist.

## Tips for quitting (Irish Cancer Society)

<http://www.cancer.ie/reduce-your-risk/smoking/how-to-quit/tips#sthash.wWCNZE1C.dpbs>

Looking for advice to help you quit? We'll give you lots of hints and tips to stop smoking.

### 1. Prepare to quit

Jot down your reasons for stopping (like making your home and car smoke-free), and keep them close at hand. Weigh up the pros and cons of quitting or staying the same.

### 2. Pick a date

Most people who successfully quit smoking do so by stopping altogether and not by gradually cutting down. Pick your day to stop smoking and stick to it.

### 3. Get support

Get moral support from family or friends. Sometimes it's helpful if a friend, family member or colleague quits with you. Talk to your GP for support, or call the HSE Quit Team on Freefone **1800 201 203**.

### 4. Change your routine

Smoking is often linked to certain times and associations such as the first smoke in the morning, drinking coffee or alcohol. These are called your 'triggers'. Replace these triggers with new activities that you don't link with smoking. For example, if you always had a cigarette with cups of coffee switch to tea or fruit juice instead.

### 5. Increase physical activity

Regular exercise contributes to good health. It helps to manage weight and can also improve the body's ability to meet the demands and stresses of daily living.

### 6. Don't be worried about withdrawal symptoms

You may experience withdrawal symptoms once you stop smoking. These are very positive signs: they mean your body is recovering from the effects of tobacco. Common symptoms include coughing, irritability and fitful sleep. Don't worry, they are all perfectly normal and should disappear within a few weeks.

## 7. Deal with cravings

Cravings can occur frequently during the first few days after stopping smoking. A craving increases in intensity over a period of three to five minutes and then begins to subside.

Tips for dealing with cravings – the 4 Ds

- **Delay** at least three minutes and the urge will pass
- **Drink** a glass of water or fruit juice (sip slowly)
- **Distract** yourself. Move away from the situation
- Take a **deep breath**. Breathe slowly and deeply. It will help you to relax.

## 8. Count the savings

Put away the amount of money you would normally spend on tobacco. Work out how much you spend on cigarettes per week, month and year. Then watch your savings grow.

## 9. Watch what you eat

If you're worried about gaining weight, be extra careful with your diet. Avoid snacking on chocolate bars and biscuits; try some fruit or sugar free gum or popcorn instead.

## 10. Take one day at a time

It may take a little while to get used to being without cigarettes. Remember, every day without a cigarette is good news for your health, your family and your pocket.

## Nicotine Replacement Therapy (NRT)

NRT are products used to assist cigarette smokers to quit or stop smoking. They provide nicotine levels high enough to reduce withdrawal symptoms but do not include the chemicals in the tobacco smoke. 'There are a variety of nicotine replacement (NRT) preparations available. They include patches, gum, lozenges, tablets, nasal spray and inhalator (Jones, 2013, p.219).

The guidelines outlined by the National Institute of Clinical Excellence in the UK (NICE, 2010) provide guidance for health care professionals when presented with a pregnant woman who smokes. These guidelines include the importance of the health care professional discussing the risks and benefits of using NRT with the pregnant woman. The guidelines advise NRT use only if the initial attempt at smoking cessation without NRT has failed. <https://www.nice.org.uk/guidance/PH26/chapter/1-Recommendations#recommendation-5-use-of-nrt-and-other-pharmacological-support>

The royal Australian College of General Practitioners state 'NRT can be used by pregnant and breastfeeding mothers, but the risks and benefits should be explained carefully to the woman by a suitably qualified health professional and the clinician supervising the pregnancy should be consulted'. 'Women who continue to smoke after the birth should be encouraged to breastfeed their babies. Women who are unable to quit smoking completely can be given strategies to minimise exposure to the baby of second-hand smoke'. <https://www.racgp.org.au/your-practice/guidelines/smoking-cessation/smoking-cessation-in-populations-with-special-needs/pregnant-and-breastfeeding-women/>

The Irish Health Products Regulatory Authority state 'Nicotine from smoking and NRT is found in breast milk. However the amount of nicotine the infant is exposed to from NRT is relatively small and less hazardous than the second-hand smoke they would otherwise be exposed to. Using intermittent dose NRT preparations, compared with patches, may minimize the amount of nicotine in the breast milk as the time between administrations of NRT and feeding can be more easily prolonged'. [http://www.hpra.ie/img/uploaded/swedocuments/LicenseSPC\\_PA1186-018-003\\_28102016104341.pdf](http://www.hpra.ie/img/uploaded/swedocuments/LicenseSPC_PA1186-018-003_28102016104341.pdf)

Jones (2013, p. 220) states NRT 'product choice is individual and no one method has been shown to be superior although patches do produce a continuous level of nicotine so that the patient no longer suffers peaks and troughs of nicotine levels associated with cravings'.

Nicotine patches if used by pregnant women should be removed before going to bed and 'neither varenicline or bupropion should be offered to pregnant or breastfeeding women' (NICE, 2010) <https://www.nice.org.uk/guidance/PH26/chapter/1-Recommendations#recommendation-5-use-of-nrt-and-other-pharmacological-support>

Information in relation to individual NRT products and their licensed recommendations for use in lactation can be found in the Summary of Product Characteristics (SmPC); these are freely available at [www.hpra.ie](http://www.hpra.ie) and/or [www.medicines.ie](http://www.medicines.ie).

Side effects reported by users of NRT include headaches, nausea and local reaction (Jones, 2013). Exposure of the baby to NRT products is considered to be safer than exposure to cigarettes and second hand smoke; however there is limited and inconclusive evidence available currently. The following information relates to full term and healthy infants. If the infant is pre-term, of low birth weight or has other concomitant pathology or medical problems, then specialist advice should be sought as the information below may not apply.

The current BNF (Dec 2016) states, that nicotine is present in milk; however, the amount to which the infant is exposed is small and less hazardous than second-hand smoke (BNF, 2016). Intermittent therapy is preferred (BNF, 2016). One source comments that while nicotine replacement therapy does have advantages over smoking for the breastfed baby, due to the absence of toxins from cigarette smoke in the mother's milk, it cannot, however, be seen as harmless due to high nicotine transfers.(Schaefer, 2015)

The UK Drugs in Lactation Advisory Service states that NRT in the mother is considered to present a lower and more acceptable risk to the infant than exposure from cigarettes through inhalation and breast milk. However, this will only apply if the mother is not smoking cigarettes in addition to using NRT

<https://www.sps.nhs.uk/>

E-cigarettes are relatively new and as a result there is limited research available regarding their use. It is unknown how much nicotine they contain or how much is inhaled by the user. E cigarettes do not burn so there is less chemicals released than from cigarettes and there is also a reduced risk of burns because ashtrays and lighters are not needed.

### **If a breastfeeding mother is unsuccessful in stopping or quitting cigarette smoking**

A mother who may have tried to quit and been unsuccessful, or a mother or her partner who continue to smoke while breastfeeding

- Should continue to receive support from the health care professional
- Should be encouraged to re engage again with the local Smoking Cessation Officer or  
HSE Quit Team on Freefone **1800 201 203**
- The mother should be advised to reduce the number of cigarettes she smokes
- It should be recommended to smoke after she has breastfed her baby. The reason being the half life of nicotine is approximately 95 minutes hence this level will have risen initially after the cigarette but then both her blood level and milk levels will have reduced before she is due to breastfeed again.
- It is important for the mother to ensure exposure of her baby to second hand smoke is avoided. The mother should smoke outside or at least in another room and should not allow anyone else to smoke near her baby
- After the mother smokes, carbon dioxide is present in her hair, hands and outer clothing, thus advise the mother 'to cover up and clean up'. She should wear an outer protective layer of clothing and hat when she smokes and remove these after she has finished smoking the cigarette. This clothing should then be placed in an outside utility room or closed closet
- Encourage the mother to brush her teeth, and wash her face and hands to remove the carbon dioxide present after the cigarette
- Encourage the mother not to co-sleep or bed share with her baby as sleeping with the baby, if she or her partner smokes is a risk for SIDS.
- NICE guidelines are that a pregnant women should only consider NRT when all other avenues for quitting have been unsuccessful

**There are many benefits to quitting smoking cigarettes for the family, these include**

- Better health benefits for the family
- More available income
- The ex smoker will have more energy
- The home will smell fresher with no lingering second hand smoke
- There will be a wonderful sense of achievement

### **Health care professional training**

There is a Brief Interventions for Tobacco Cessation (1 Day Training) course for health care professionals. This is national accredited training programme in support of the National Tobacco Framework and is open to all HSE staff working directly with patients and clients.

### **Category 1 Approval 6 CEUs for registered Nurses and Midwives**

#### **5.5 External CPD credits for registered Doctors / Consultants**

##### **Background:**

In 2010, the HSE adopted the **Tobacco Control Framework** to inform HSE policy and provide a coherent response to tobacco use in Ireland. A number of actions from the Framework have been prioritised in the HSE National Service Plan, including training all health care workers to have the necessary skills to address smoking as a care issue. Health professionals are ideally placed to raise the issue of smoking with service users. With the right mix of knowledge and skills, health professionals can really make every contact count by encouraging and supporting smokers to quit.

##### **Aim:**

To up skill participants in using the evidence based Brief Intervention framework with all tobacco users

##### **Objectives:**

- To encourage health professionals to reflect on their role in promoting tobacco cessation among their patients / clients.
- To enhance knowledge of the risks of tobacco use, benefits of quitting and the available resources to support a quit attempt.
- To introduce health professionals to the evidence-based Brief Intervention framework, that they can incorporate into their clinical practice / work environment.
- To develop skills in a motivational approach to behaviour change as it applies to tobacco cessation.

### **The Course will cover:**

- Knowledge of Tobacco Use
- The health effects of tobacco use & the benefits of quitting
- Raising the issue of tobacco use with patients
- Principles of a motivational approach to enhance client centred practice
- Coping with withdrawal symptoms
- Nicotine Replacement Therapy
- Smoking Cessation services and supports
- **To book online:** <http://hsenet.hse.ie/FeedbackServer/fs-2016BISC.aspx>

Making Every Contact Count (MECC). This proposed national online training is set to replace Brief Interventions from the end of 2017. (MECC Project Manager - Maria O' Brien)



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