Smoking cessation and Nicotine Replacement Therapy in pregnancy and breastfeeding

Information in this leaflet is general in nature and should not take the place of advice from your health care provider. With every pregnancy there is a 3 to 5% risk of having a baby with a birth defect.

Smoking is a major preventable cause of adverse outcomes in pregnancy.[1]This is because cigarette smoke contains over 3000 chemicals including nicotine and carbon monoxide. As well as exposing an unborn baby to toxic chemicals, these substances can cause harm by reducing supply of oxygen and nutrients.[1]

Specific issues in pregnancy

It is known that smoking reduces the fertility of both men and women. [2] If you are using IVF or any other assisted reproductive technologies, smoking reduces your chance of success.

The most notable effects of smoking during pregnancy are a greater risk of **poor growth** resulting in low birth weight (sometimes called small for gestational age or intrauterine growth restriction) and an increased chance of having a baby born prematurely (before 37weeks). As a result, babies of smoking mothers are more likely to require monitoring and intensive care treatment after birth.[2]Other research has indicated that babies born to mothers who smoked during pregnancy have an increased risk of sudden infant death syndrome (SIDS) and during childhood they are more likely to have respiratory infections, asthma and be obese[1]. In addition, children whose mothers smoked during pregnancy are more likely to be at risk of diseases such as heart disease, type 2 diabetes and high blood pressure when they are adults.[1]

Why stop now?

It is ideal to stop smoking before pregnancy. At this time you are able to use the whole range of antismoking treatments and you are able to protect any subsequent pregnancy from the harmful effects of cigarettes. **However, stopping smoking at any time in the pregnancy will reduce the risks for your baby.**[1]

Non-medical treatment

If you find it hard to quit smoking without help, it is important that you get information and support from your GP, midwife or other community health service.[1.] Approaches such as counselling and hypnotherapy may be considered or you may be referred to Quitline or other smoking cessation programs.[1]

Medicines recommended

If you are unable to stop smoking using such measures, an option is the use of **nicotine replacement therapy (NRT)**. Although research is somewhat limited, it is generally felt that using NRT in pregnancy is likely to be less harmful than smoking cigarettes. This is because although NRT is a source of nicotine, it does not contain any of the other harmful chemicals and carbon monoxide that are inhaled by smoking cigarettes. NRT should **always** be used with

medical advice and support. Use the lowest **effective** dose and make sure to use it as instructed. Consider use of gum, inhalers or lozenges. If you use a patch, it should not be used at night while sleeping.[1] **It is important that women do not smoke while using NRT as this increases the amount of nicotine exposure**.

Bupropion and varenicline are medications that have been used to aid smoking cessation generally, but currently there is little research regarding the effectiveness of either during pregnancy and there is inadequate safety data on varenicline[3]. Consult with your doctor if NRT is ineffective and you are considering the use of these medications to aid in smoking cessation.[1]

E-cigarettes

Various forms of e-cigarettes have recently become available. While they may be less harmful than smoking, there have been no long-term studies. Thus, it is currently not known if they are safe. In addition, the ingredients in e-cigarettes vary and their production is unregulated. E-cigarettes that contain nicotine are banned in Australia (although they can be purchased over the internet).[4] Currently any form of e-cigarette use is not recommended in pregnancy or while breastfeeding.

Breastfeeding

It is known that nicotine and other harmful substances from cigarette smoke transfer into breastmilk.[2] Women who smoke may have reduced breastmilk supply and are less likely to successfully breastfeed.[1] **However, women who do smoke are still encouraged to breastfeed their babies as the health benefits of breastfeeding to both mother and baby outweigh any risks even if continuing to smoke**. Breastfeeding itself is believed to reduce the risks of SIDS, though a smoky environment increases the risks to baby of SIDS and other respiratory illnesses. As such, it is important not to smoke near your baby. If a breastfeeding mother does choose to smoke she is advised to do this immediately after a breastfeed.

If you are unable to stop smoking and you have tried measures such as counselling, NRT can be considered. Levels of nicotine in breastmilk from NRT are low and babies whose mothers use NRT will be exposed to less nicotine than from smoking and will not be exposed to all the other chemicals in cigarettes. If counselling and NRT are ineffective, consult with your doctor as other medication may be considered for use.

References

1. Mendelsohn C, Gould GS,and Oncken C. Management of smoking in pregnant women. Aust Fam Physician 2014;43:46-51
2. Briggs GG, RK Freeman, SJ Yaffe .Drugs in Pregnancy and Lactation : A Reference Guide to Fetal and Neonatal Risk. 9th ed.Philadelphia. Lippincott Williams & Wilkins 2011.
3. Bittoun R, Femia,G. Smoking cessation in pregnancy. Obstetric Medicine 2010;3:90-93
4. Therapeutic Goods Administration. Electronic cigarettes. Canberra: Department of Health and Ageing, 2011. http://www.tga.gov.au/consumers/ecigarettes.htm (accessed Oct 2012).

Other resources

- QUITLINE: tel 137848 (13QUIT) or http://www.quit.org.au/
- Quit4 Baby website: http://www.quit4baby.com.au
- No Butts Baby booklet: NSW Health http://www.seslhd.health.nsw.gov.au/Planning_and_Population_Health/Health_Promotion/Tobacco_Control/documents/NoButtsBabyA5_Booklet.pdf

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