

Smoking Cessation and Breastfeeding

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Office National Statistics 2010

26% new mothers were smoking at the beginning of pregnancy

| Smoking status | Total |
|--|-------|
| non smokers | 74% |
| never smoked | 58% |
| gave up smoking over a year before pregnancy | 16% |
| all smokers | 26% |
| smoked before pregnancy but gave up | 14% |
| gave up less than a year before pregnancy | 4% |
| gave up on confirmation of pregnancy | 9% |
| gave up later in pregnancy and stayed quit | 1% |
| smoked throughout pregnancy | 12% |
| gave up but started again | 1% |
| cut down | 9% |
| did not cut down | 1% |





The group who need help to quit?

| | |
|-----------------------------|-----|
| smoked throughout pregnancy | 12% |
| gave up but started again | 1% |
| cut down | 9% |
| did not cut down | 1% |

Over half (53%) had been given information on how to stop smoking, and a third had received information on how to cut down smoking (32%) and how their partner could stop smoking (33%) but had not quit.

Were you one of these and do you want to quit now?

How many mothers quit smoking in pregnancy or cut down but start again?

- Less than a year after the birth of their baby, over three in ten mothers (31%) who had stopped during pregnancy, were smoking again.

WHY?

- Nicotine and smoking itself is very addictive
- It is hard to stop and never smoke again



Why did they not quit and what do they get from smoking?

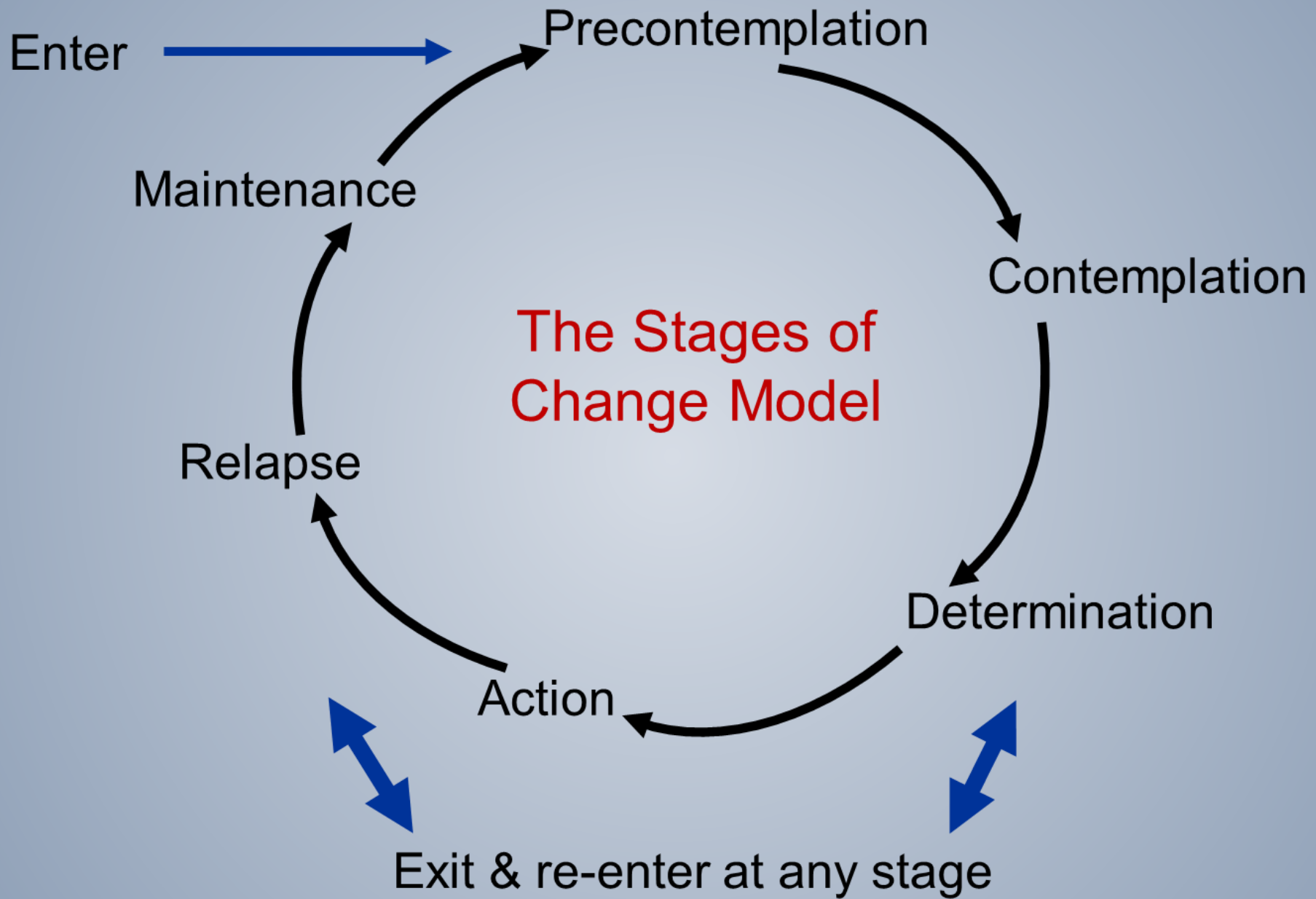
- Stress relief
- Time for themselves
- Weight loss
- To mask hunger if they are struggling financially
- Normal in **their** social group and/or family



What are the risks of smoking during breastfeeding?

- SIDS – if mum and dad smoke risk is multiplied by 7
- Colic in baby (lowered prolactin? Slower let down?)
- Irritable/fussy baby because of irritation of passive smoking
- Poor milk supply so likely to wean earlier
- 2-3 times more visits to GP with respiratory infection and allergy in the baby
- the good cholesterol (LDL) is lowered so heart risks in mother
- Pneumonia, asthma, bronchitis, sinus infection, eye irritation, croup





Prochaska and DiClemente's Stages of Change Model

Pre contemplation

- Not currently considering change otherwise known as "Ignorance is bliss"
- Acknowledge lack of readiness
- Clarify that the decision is yours
- re-evaluate current behaviour/ smoking
- Think about stopping but don't do anything
- What is the risk to you and your baby of smoking?



Contemplation

- Ambivalent about change otherwise known as "Sitting on the fence"
- Not considering change within the next month
- Acknowledge lack of readiness
- Clarify to yourself the decision is yours and no one else's
- Consider evaluation of pros and cons of stopping smoking
- Identify new, positive outcome expectations





Anxiety about change

- When we are asked to change a behaviour thinking about it often brings out anxiety
- Thinking back to the behaviour changes you have wanted to make in the past, can you remember being anxious?
- Once we start to change the anxiety can decrease ----- so long as it is going ok
- How can others help? Who/ what helped you change a habit in the past?
- Would joining a group help you?



Preparation

Some experience with change and trying to change:

known as "Testing the waters"

- Planning to act within 1month
1. Praise yourself for the decision to change behaviour
 2. Prioritize behaviour change opportunities
 3. Identify and ask for assistance in problem solving and obstacles. You can ask a smoking cessation advisor for help
 4. Take small initial steps
 5. Identify social support network – do you want to tell everyone or keep it a secret?





Action

- Practice new behaviour for 3-6 months
- Focus on restructuring cues and social support
- Bolster self-efficacy for dealing with obstacles
- Combat feelings of loss and keep reiterating long-term benefits to yourself
- Keep the money you would have spent in a pot or a savings account



Maintenance

- Continued commitment to sustaining new behaviour
- 6 months to 5 years
- Plan for follow-up support if you need it
- Reinforce your own internal rewards – can you breathe more easily, run further/faster
- Think about coping with relapse possibility – one cigarette doesn't mean you have failed and you might as well smoke the whole packet!



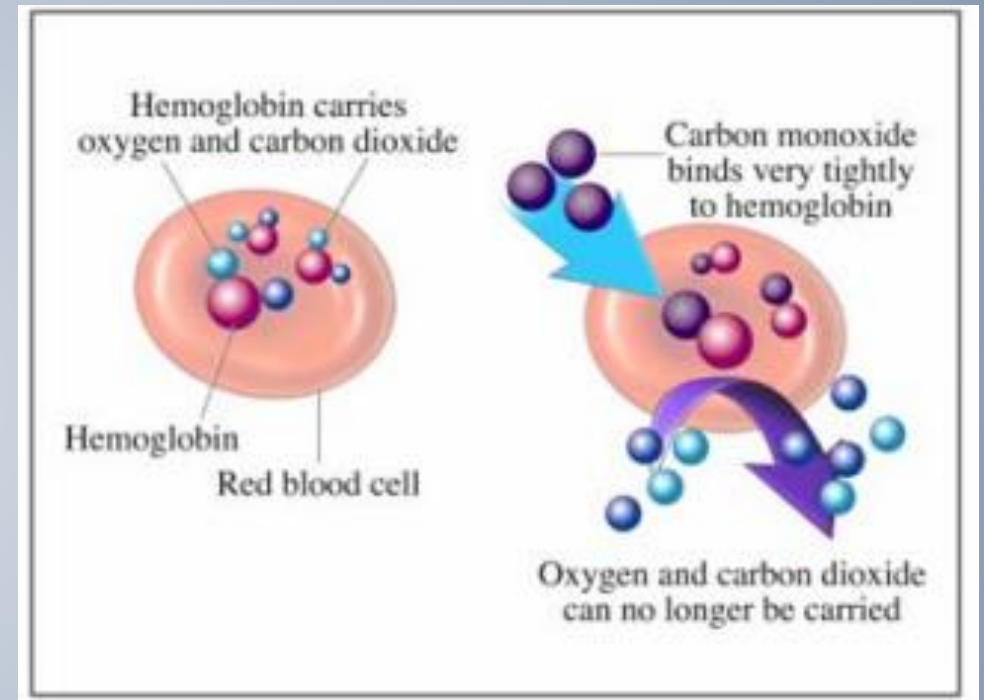
Relapse

- Resumption of old behaviours: a "Fall from grace"
 - Evaluate trigger for relapse
 - Reassess motivation and barriers
 - Plan stronger coping strategies
 - What feelings are likely?
-
- **DON'T GIVE UP GIVING UP**



Carbon monoxide (CO) measurement in pregnancy

- What does it mean ? Midwives are checking that you aren't smoking and ensuring the health of your baby
- You will be monitored at each appointment antenatally
- The more you smoke the less oxygen your baby gets through the placenta which is why they tend to be born smaller
- CO returns to that of a non smoker within 24-48 hours of stopping smoking



What does nicotine actually do to your body?

- It is addictive
- Short term central stimulant so it gives you a boost
- Short term increase in blood pressure
- Short term increase in heart rate
- Narrows blood vessels
- Reduces the oxygen carrying capacity of the blood
- Raises blood fats
- Tar contains 4000 chemicals, many bind with DNA – carcinogenic
- Causes skin aging and wrinkles



Benefits of quitting: How soon do they kick in?

| | |
|---------------------------|---|
| 20 minutes | Your blood pressure, pulse rate and the temperature of your hands and feet have returned to normal. |
| 8 hours | Remaining nicotine in your bloodstream has fallen to 6.25% of normal peak daily levels, a 93.75% reduction. |
| 12 hours | Your blood oxygen level has increased to normal. Carbon monoxide levels have dropped to normal. |
| 24 hours | Anxieties have peaked in intensity and within two weeks should return to near pre-cessation levels. |
| 48 hours | Damaged nerve endings have started to regrow and your sense of smell and taste are beginning to return to normal. Cessation anger and irritability will have peaked. |
| 72 hours | Your entire body will test 100% nicotine-free and over 90% of all nicotine metabolites (the chemicals it breaks down into) will now have passed from your body via your urine. Symptoms of chemical withdrawal have peaked in intensity, including restlessness. The number of cue induced crave episodes experienced during any quitting day have peaked for the "average" ex-user. Lung bronchial tubes leading to air sacs (alveoli) are beginning to relax in recovering smokers. Breathing is becoming easier and your lung's functional abilities are starting to increase. |
| 5-8 days | The "average" ex-smoker will encounter an "average" of three cue induced crave episodes per day. Although we may not be "average" and although serious cessation time distortion can make minutes feel like hours, it is unlikely that any single episode will last longer than 3 minutes. Keep a clock handy and time them. |
| 10 days | 10 days - The "average" ex-user is down to encountering less than two crave episodes per day, each less than 3 minutes. |
| 10 days to 2 weeks | Recovery has likely progressed to the point where your addiction is no longer doing the talking. Blood circulation in your gums and teeth are now similar to that of a non-user. |





Things which may help you quit

- Think about why **you** want to stop smoking – is it for you, for your baby or older children, because somebody says you OUGHT to? If the latter you are unlikely to succeed long term, you need to decide that it is what **YOU** want to do and have a clear reason to do so.
- Set a date when you plan to stop smoking and work towards that date.
- Decide on what NRT you wish to use – it is much easier than trying to go cold-turkey. Can you get support from your local community pharmacy, practice nurse or smoking cessation service? They may well prescribe for you so the NRT is free if your baby is under 12 months of age. They will also monitor your carbon monoxide (CO) level in your breath showing you how your lungs clear quickly.
- Think about when you smoke – is it a routine e.g. after a meal, with a cup of coffee, when you are tired or hungry? Think about each cigarette you have over several days – what made you decide to light this cigarette? Do you really want it or is it a habit?



- Think about where you smoke – is it always in the same place e.g. a chair you sit in, outside the kitchen door so in sight or sound of your baby but not with him/her.
- Decide how you can change each time you smoke – can you distract yourself for 20 minutes? This is the time it usually takes a craving to subside. Could you wash the floor, sing a song to your baby, make everything ready for the next meal, paint your nails or something else that works for you? Can you change where you sit?
- On the day you decide to stop you may want to tell everyone so that you elicit their support or you may want to keep quiet so no-one tries to tempt you because they haven't made their own decision.
- Put away the cash you would have spent on the cigarettes and spend it after 6 weeks of being cigarette free on a treat for YOU – not the family, not the baby, this is YOUR celebration of overcoming the addictive habit called smoking.
- If you smoke to give yourself “5 minutes peace”: think about how else you could spend that time.



- Have strong tasting sweets around to suck – traditionally these are mints but could be anything you like.
- Have lots of healthy snacks so you don't resort to chocolate instead if you feel hungry.
- Be proud of yourself – stopping smoking is not easy!
- Take every day as it comes and celebrate.
- If you have one cigarette it doesn't mean you failed, think why it happened and plan how to avoid that situation again. Do not give up giving up!





What could you buy if you didn't smoke?

- Do the sums of how much you are effectively setting fire to daily and what you could do with that money
- If a pack of 20 cigarettes costs £12.75,
- over a week that costs £89.25,
- over a month £375 – what could you buy instead?
- Over 3 months you could save £1071, over a year £4,653.75 which would buy a lovely holiday for a family!



Using NRT doubles the chance of quitting

- Patches – 24 hour or 16 hours
- Inhalator (looks like plastic cigarette and can be useful if you miss having something to hold)
- Chewing Gum
- Lozenge
- Oral Strips
- Microtab
- Mist Spray – nasal or mouth
- skin patches



Choice of NRT

- Patches release nicotine slowly. Some are worn all the time and some should be taken off at night. Inhalators, gum and sprays act more quickly and may be better for helping with cravings.
- There's no evidence that any single type of NRT is more effective than another. But there is good evidence to show that using a combination of NRT is more effective than using a single product.
- Everyone is different. It is what works for you





Champix™ (varenicline)

The usual course of treatment for Champix is 12 weeks. You need to start taking it one to two weeks before the date you actually want to stop smoking, so that your body can adjust to the treatment.

| Timing | Dosage |
|---|---|
| Week 1: First three days | Take one 0.5mg tablet each day |
| Week 1: Days four to seven | Take one 0.5mg tablet once in the morning and once in the evening, at about the same time every day |
| Day 8 until the end of treatment (12 or 24 weeks) | Take one 1mg tablet twice a day |

Side Effects

- Reported side effects include headaches, difficulty sleeping, abnormal dreams and nausea
- Other possible side effects include dry mouth, tiredness, vomiting and stomach discomfort
- Less common side effects include anxiety, feeling weak or unwell (flu like), mood swings, dizziness and disturbed vision





Champix and breastfeeding

- Varenicline is a partial nicotine agonist used to assist smoking cessation.
- One researcher points out that based on animal data on nicotine, varenicline might interfere with normal infant lung development and recommends against its use in nursing mothers.
- Based on its long half-life, poor protein binding and small molecular weight it is anticipated to transfer to human milk.
- Because no information is available on the use of varenicline during breastfeeding, an alternate drug is preferred, especially while nursing a newborn or preterm infant.
- If used monitor the baby for changes in sleep, changes in feeding, vomiting, constipation.
- For more information <https://www.ncbi.nlm.nih.gov/books/NBK501688/>



Zyban™ (Bupropion)

- Initially 150 mg daily for 6 days,
- then 150 mg twice daily minimum 8 hours between doses
- period of treatment 7–9 weeks,
- start treatment 1–2 weeks before target stop date,
- Should be discontinued if abstinence not achieved at 7 weeks,

Treatment with bupropion

- start 1–2 weeks before target stop date,
- initially 150 mg daily for 6 days
- then 150 mg twice daily (max. single dose 150 mg, max. daily dose 300 mg; minimum 8 hours between doses);
- period of treatment 7–9 weeks;
- discontinue if abstinence not achieved at 7 weeks
- Contra indicated if history of eating disorders or of seizures



Side effects

- dry mouth, gastro-intestinal disturbances, taste disturbance; agitation, anxiety, dizziness, depression, headache, impaired concentration, insomnia (reduced by avoiding dose at bedtime), tremor; fever; itching, rash, sweating
- less commonly chest pain, flushing, raised blood pressure, tachycardia, anorexia, confusion, tinnitus, and visual disturbances





Bupropion in breastfeeding

- Limited information indicates that maternal bupropion doses of up to 300 mg daily produce low levels in breastmilk and would not be expected to cause any adverse effects in breastfed infants.
- It is used for depression in USA
- However, there is little reported use in breastfed newborn infants and case reports of a possible seizure in partially breastfed 6-month-olds.
- If bupropion is required by a nursing mother, it is not a reason to discontinue breastfeeding.
- However, another drug may be preferred, especially while nursing a newborn or preterm infant.
- For more information <https://www.ncbi.nlm.nih.gov/books/NBK501184/>

How to change the habit (as well as addiction)?

- Change seats
- Don't associate drinking tea/coffee/eating with cigarette
- Distraction
- Get rid of ashtrays
- Put aside the money for something you couldn't afford for yourself = your treat not baby's or family's



E- cigarettes

- E-cigarettes have become very popular as a safer alternative to cigarette smoking without exposure to tobacco and substances known to cause detrimental effects including lung cancer.
- It was reported that an e-cigarette produced peak blood nicotine levels of 1.3 ng/mL in 19.6 minutes, which is comparable to the levels obtained by a nicotine inhaler (2.1 ng/mL in 32 minutes) and much lower than those obtained by a conventional cigarette (13.4 ng/mL in 14.3 minutes). This study further revealed that the reduction in the desire to smoke is similar to that of a nicotine inhaler but that e-cigarettes are better tolerated by users.

Bullen C, McRobbie H, Thornley S, Glover M, Lin R, Laugesen M. Effect of an electronic nicotine delivery device (e cigarette) on desire to smoke and withdrawal, user preferences and nicotine delivery: randomised cross-over trial. *Tob Control*. 2010 Apr;19(2):98-103.HIGHLIGHT





E cigarettes

- the amount of nicotine delivered after 10 puffs of a 16 mg e-cigarette is little to none. (Eissenberg T. Electronic nicotine delivery devices: ineffective nicotine delivery and craving suppression after acute administration. *Tob Control*. 2010 Feb;19(1):87-88)
- Based on these findings, it can be concluded that the amount of nicotine that transfers into breast milk after an acute inhalation of an e-cigarette is probably minimal, and comparable to that of a nicotine inhaler.
- But it is reported that an average e-cigarette user inhales up to 120 puffs/day. Etter JF, Bullen C. Electronic cigarette: users profile, utilization, satisfaction and perceived efficacy. *Addiction*. 2011 Nov;106(11):2017-2028

Staying smoke free

- Weight gain: On average, quitters who didn't rely on drugs or nicotine replacement to kick cigarettes, had gained 2.5 lbs. one month after quitting, 5 lbs. at two months, 6.3 lbs. at three months, 9.3 lbs. at six months, and 10.3 lbs. at 12 months.
- “Modest weight gain does not increase the risk of death smoking does”
- **Risk: Benefit for mum and children is undoubtedly to quit smoking**



Should a mother who is smoking breastfeed?

- **Definitely yes**
- Breastfeeding provides immunities to help infections
- Breastfeeding decreases the negative impact on baby's lungs
- Risk of SIDS with formula feeding and smoking household is greater
- If you have one cigarette socially that doesn't make you a smoker again so no justification for another

