Information Statement

SMOKING

SIDS and Kids recommends:
Avoid exposing baby to tobacco smoke before birth and after.

To Reduce the Risks of Sudden Infant Death, including SIDS and Fatal Sleep Accidents

1. Sleep baby on the back from birth, not on the tummy or side
2. Sleep baby with face uncovered (no doonas, pillows, lambs wool, bumpers or soft toys)
3. Avoid exposing babies to tobacco smoke before birth and after
4. Provide a safe sleeping environment (safe cot, safe mattress, safe bedding)
5. Sleep baby in their own safe sleeping environment next to the parent's bed for the first six to twelve months of life

- Smoking in pregnancy increases baby's risk of death from late in pregnancy to one year of age
- Babies who are exposed to tobacco smoke arouse less during sleep
- There is an increased risk of sudden infant death for babies exposed to tobacco smoke after birth
- If baby's father is a smoker there is an additional increased risk of sudden infant death for baby
- The risk of sudden infant death is increased for babies who share a sleep surface with a smoker, even if the smoker doesn't smoke in the bed
- Avoid exposing baby to tobacco smoke in the house and the car
- Keep breastfeeding baby even if you are a smoker

Babies who are exposed to tobacco smoke after birth are at an increased risk of sudden unexpected death in infancy, including SIDS. To avoid exposing baby to tobacco smoke, don't let anyone smoke near your baby - not in the house, the car or anywhere else your baby spends time.

It is often hard to quit smoking so ask for help. Call the Quitline on 137 848 or ask your doctor, midwife or child health nurse for information and advice about quitting.

Evidence: effects of smoking
Babies and young children are especially vulnerable to the poisons in second hand smoke because their bodies are developing.[1] Babies of mothers who smoke or who are exposed to second hand smoke are more likely to be born prematurely and of low birth weight.[2,3] Specific effects of passive smoking on babies and children include SIDS (Sudden Infant Death Syndrome); respiratory infections and conditions including croup, bronchitis, and pneumonia; ear infections; learning difficulties;

behavioural problems including increased infant irritability and hypertonicity, and an increased likelihood of childhood asthma.[1,4,5]

Prenatal smoking increases the risk of stillbirth[6-9], neonatal mortality (death of a live-born baby within 28 days)[10] and infant mortality.[9]

An increased risk of SIDS when babies are exposed to tobacco smoke has been found in numerous epidemiological, case-control and cohort studies.[11-15] A large case-control study in the United Kingdom involving families with babies born in 1993-1995, since the change in sleeping position was promoted, found that the incidence of smoking during pregnancy was greater in mothers of 195 SIDS cases (63%) than in mothers of 780 controls (25%).[11] This finding is consistent over time and place. Most studies have reported a dose-response relationship,[16,17] meaning that the more cigarette smoke the baby is exposed to, the higher the risk of SIDS.

A study of babies aged 8-12 weeks (when babies are at the peak risk of SIDS) found that babies who were exposed to tobacco smoke before birth do not arouse as readily as babies of women who did not smoke during pregnancy.[18] It is really important that babies can arouse readily from sleep so they can respond by swallowing or gasping if a life-threatening event occurs (for example if the time between breaths is really long, or there is fluid in the throat). Babies who have been exposed to tobacco smoke before birth have trouble arousing during sleep and this is believed to contribute to the final pathway to SIDS.[19]

More than 60 studies have shown that maternal smoking in pregnancy is associated with an increased risk of a SIDS.[15] Smoking is one of the most important modifiable risk factors in reducing the risks of sudden infant death with international agreement that the evidence now demonstrates a causal association.[20]

Smoking and breastfeeding

A case-control study of the nicotine and cotinine (a metabolite of nicotine) levels in the body fluids and hair of babies found that the babies of mothers who stated having smoked during pregnancy had higher nicotine levels than the babies of non-smoking mothers. The authors then looked at the way the babies of the smoking mothers were fed and found that the cotinine and nicotine levels were not significantly higher in the breast fed babies, suggesting that the transfer of nicotine and cotinine in breast milk was not a significant factor and that passive smoking was the major cause of the observed high levels.[21]

All mothers, including those who smoke, are encouraged to breastfeed their babies.

What about paternal smoking and smoking among other members of baby's household?

If fathers are smokers then there is an independent additive increase in the risk of SIDS.[22]

An independent effect of postnatal exposure to tobacco smoke has been found in a number of studies as well as a dose response for the number of household smokers, people smoking in the same room as the baby, number of cigarettes smoked, and daily hours the baby is exposed to a smoke-filled environment.[1-3,15,23]

A recent study shows that both mothers' and fathers' tobacco smoke make substantial contributions to baby's exposure to tobacco smoke. The interaction between parents needs to be considered rather than focusing on a mother's or father's smoking behaviour in isolation.[24]

Efforts to minimise baby's exposure to tobacco smoke

Research has shown that protecting babies from fathers' as well as mothers' smoking is key in reducing environmental tobacco exposure in early infancy, when the risk of SIDS is highest.[24] A number of studies have examined ways to achieve this. Strategies such as keeping windows open and avoiding smoking near the baby are not completely effective in reducing an baby's exposure to tobacco smoke [25] and cotinine concentrations in the hair of the children of smokers were strikingly similar whether the parent stated that they smoked indoors or outside.[26-28] Although going outside to smoke reduces the children's exposure to ETS (Environmental Tobacco Smoke), [28] giving up smoking is the most effective way of reducing ETS exposure for babies and children.[25,29]

Room-sharing reduces the risk of sudden infant death while sharing a sleep surface with a baby if you are a smoker increases the risk of sudden infant death ten-fold.[16,23,30-36] Babies of mothers who smoke are at a higher risk of SIDS than babies of mothers who do not smoke and room share.[37] As room-sharing reduces the risk of sudden infant death, and babies of smokers are at an increased risk, current advice is that parents who are smokers should room-share (but not share the same bed or sleep surface) as long as the room baby sleeps in is kept smokefree.[20]

Incidence and intervention

In Australia, around 17% of women smoke during pregnancy.[38] Although the rate appears to be declining in the developed world[9] there has been no real change in this rate in recent years in Australia[38] where smoking rates remain high within certain groups of pregnant women including teenagers (42%) and Indigenous women (52%). More recently, evidence from the UK suggests the prevalence of maternal smoking during pregnancy has risen amongst SIDS mothers (from 50% to 80%) when the rate amongst expectant mothers in the general population has fallen (from 30% to 20%) confirming estimates from recent studies of a four-fold increased risk of sudden infant death for the babies of parents who smoke.[23]

Recent legislation in some jurisdictions in Australia prohibits smoking in the vehicle when babies and young children are present.[a] Exposure to secondhand smoke in a vehicle is more toxic than in a house due to the smaller enclosed space.[1, 39-41] Keep car and home a smoke free zone.

There is an extensive literature concerning the difficulties associated with smoking cessation and which interventions are most effective.[2,3,20,34,42-45] It is generally agreed that although providing information is important, on its own it has little impact on smoking behaviour. Cognitive-behavioural strategies have been shown to be the most effective while reward programs with social support are supported by a limited number of studies.[44] Health professionals involved in antenatal and postnatal care should ensure that they refer parents to such programs.

The 5A's approach (Ask, Advise, Assess, Assist, Arrange) to smoking cessation should be incorporated into routine antenatal care in the form of a brief smoking cessation intervention (lasting approximately 3-5 minutes) for all pregnant women

[a] South Australia: Tobacco Products Regulation (Smoking in Cars) Amendment Act 2007 commenced 5.4.2007 – "A person must not smoke in a motor vehicle if a child is also present in the motor vehicle." Tasmania: Section 67H(2) of the Public Health Act 1997 states that 'on or after 1 January 2008, a person must not smoke inside a vehicle if a child is inside the vehicle'. Victoria: the Tobacco Amendment (Protection of Children) Act 2009 bans smoking in a motor vehicle if a person under the age of 18 years is present. Commenced on 1 January 2010. New South Wales: From 1 July 2009, smoking in cars with a child under the age of 16 years in the vehicle is an offence under the Public Health (Tobacco) Act 2008. Queensland: The Health and Other Legislation Amendment Act 2009 bans smoking in cars carrying children under the age of 16 as of January 2010

who are identified as smokers or recent quitters (have quit within the past 12 months) at each antenatal visit. More intensive counselling should be made available to pregnant women to aid a quit attempt and/or prevent relapse eg. Referral to Quitline.[2,4,20,45]

Support to quit should be provided to the women's partner if they are also a smoker. The partners of non-smoking pregnant women should also be supported to quit. [2,3,20,45]

Post partum relapse prevention should begin in the antenatal period and continue after the birth of the baby at every opportunity, including routine postnatal health checks and through maternal and child health services.[2,20]

The SIDS and Kids Safe Sleeping program is based on scientific evidence and was developed by Australian SIDS researchers, paediatricians, pathologists, and child health experts with input from overseas experts in the field. The 87% drop in SIDS deaths and the 5,000 lives that have been saved is testament to the effectiveness of the program.

For further information visit the SIDS and Kids website at www.sidsandkids.org or phone SIDS and Kids in your State or Territory on 1300 308 307.

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