



# Safe Infant Sleep Practices and Sudden Infant Death Syndrome (SIDS)

## What is the relationship between SIDS and Infant Sleep Practices?

The diagnosis of Sudden Infant Death Syndrome (SIDS) is complex and susceptible to confusion with other infant deaths such as suffocation or asphyxia that, at autopsy, may resemble a SIDS death. The boundaries between SIDS and asphyxia, caused by a variety of mechanisms such as overlaying, soft bedding, or entrapment, are sufficiently indistinct to allow for definitive diagnoses. Bed sharing at the time of infant death further confounds the issue.

The British Columbia Coroners Service identified that from January 2003 to June 2004, 63% of infant deaths occurred during sleep and of those 83% involved one or more unsafe sleep practices (**bed sharing with at least one person, sleeping on surface unintended for child sleep, sleeping in a prone or semi-prone position, or found sleeping with items covering the head**). In 40% of the infant deaths, 2 or more unsafe practices were evident with the most common combination being **sleep on a surface unintended for child sleep and bed sharing**.

Research has identified that infants who **share a room** to sleep with one or more adults have a lower risk of SIDS than infants who do not room share. This effect is separate from and opposite to the effects of bed sharing. A reduced risk for prone sleeping was also observed when the infant room shared with a parent. The same protective effects were not evident when the infant shared a room with another child.

## Creating Safer Infant Sleep Environments

- For the first year of life, encourage parents and caregivers to place infants to sleep on their back (supine) in a crib that meets government safety standards. The infant's crib should have:
  - a firm, flat mattress that is in good condition and fits snugly into the crib
  - a tight fitting bottom sheet
  - slats that are not more than 6 cm (2-3/8 inches) apart
  - a sticker indicating it was made after September 1986
- Encourage parents, particularly mothers, to quit smoking. Infants who are exposed to second hand smoke (either pre or postnatal) are at greater risk for SIDS. The risk is more pronounced with bed sharing. Infants need a smoke free environment for healthy growth and development.
- Advise parents and caregivers not to place infants to sleep on surfaces that are not approved for infant sleeping. Even when the caregiver is present, infants should not be put to sleep on adult beds, sofas, waterbeds, car seats, recliners, or loose cushions. Sleep surfaces designed for adults may have additional risk factors for entrapment between the mattress and the structure of the bed, the wall or adjacent furniture, as well as, between railings in the headboard or footboard.
- Encourage parents and caregivers to keep infants' sleep environments free from soft materials such as pillows, quilts, sheepskins, comforters, heavy blankets, toys or stuffed animals, bumper pads, and positioning devices.
- Due to the complexity and the diversity of bed sharing practices, bed sharing should be neither encouraged nor recommended. Many research studies have examined the effect of bed sharing and the risk of SIDS. Research has shown that bed sharing for the entire sleep period can increase the risk of SIDS by a factor of nine. The risk of SIDS is multiplied when bed sharing is combined with maternal smoking. Bed sharing with more than one person poses an increased risk for SIDS. Parents may choose to breastfeed or comfort their child in an adult bed but should be encouraged to return their child to the crib to sleep.
- Encourage room sharing. Research has found that infants may be at a higher risk for SIDS when sleeping in another room. Placing the infant's crib beside the parents' bed may provide a protective effect against SIDS. Room sharing also allows for ease of breastfeeding and increases the opportunity to comfort the baby. It is a safe alternative to bed sharing.

## If Parents Choose to Bed Share...

If families decide to bed share, some important things for them to consider before they put the baby in bed with them are:

- ◆ Place the baby on his back to sleep
- ◆ The mattress must be firm and flat
- ◆ Make sure the baby cannot fall out of bed or get stuck between the headboard or footboard
- ◆ Make sure the room is not too hot or the baby has any heavy covers over him
- ◆ Ensure all other occupants of the bed are aware the baby is in the bed
- ◆ Discourage other children and pets from sharing the same bed with the baby
- ◆ Never bed share if the baby was pre-term, small at birth, or has a fever
- ◆ Never bed share if the parents smoke, are overtired or ill to the point they cannot respond to the baby, or have taken alcohol or drugs which may impair their responses and judgment

Bed sharing does create risks for the infant. The above suggestions might make bed sharing safer, but parents should know that the “safest place for their baby to sleep is in a crib, close to their bed.” (Canadian Pediatric Society, 2006)

What is

## Bed Sharing & Room Sharing?

### Bed Sharing

A sleeping arrangement in which the baby **shares** the same sleeping surface with another person, such as a parent or sibling (Canadian Paediatric Society [CPS], 2004).

### Room Sharing

A sleeping arrangement in which the infant **does not share** the same sleeping surface with another person, such as a parent or sibling, but sleeps in the same room within reach of the parents. Room sharing is recommended for the first six months of life (CPS, 2004).

Other terms, such as **cosleeping**, are used in the scientific and popular literature with inconsistent definitions. Using the terms of **bed sharing** and **room sharing** more specifically describe the infant’s sleeping arrangement.



The safest place for a baby to sleep is on his/her back, in a crib, close to his/her parents’ bed.

## Preventing Plagiocephaly

A possible side effect of infants consistently sleeping on their back is positional plagiocephaly or flat spots on the baby’s head. Parents can place the baby’s head at opposite ends of the crib on alternating days and ensure that the baby has some supervised “tummy time” while awake each day. (See Calgary Health Region brochure “Tummy Time Tips and Your Baby’s Head Shape”, Oct. 2005.)

## Does Breastfeeding protect against SIDS?

Current scientific evidence does not support a causal link between breastfeeding and SIDS prevention. Even though breastfeeding is not directly linked to preventing SIDS it does have many benefits. Literature indicates that factors

associated with breastfeeding such as socioeconomic status, education status, and other lifestyle factors, may provide a protective factor against SIDS. Ensure parents are aware of community supports for breastfeeding.

# Sudden Infant Death Syndrome

## Risk Factors Related to Infant Sleep Practices

### Prone Sleep Position

Recent research has confirmed that the prone sleep position (sleeping face down) is the most modifiable risk factor for SIDS. This risk factor is easily addressed by placing infants to sleep on their backs.

### Smoking

Smoking appears to be highly correlated with SIDS and is a substantial risk if one or both parents smoke before, during, or after birth.

### Alcohol/Drug Use

Alcohol and drug use have been implicated as confounding factors in SIDS, especially related to bed sharing as they are believed to contribute to increased roll-overs and overlaying of the infant due to impaired parental responses.

### Bedding/Soft Covers/Bumper Pads/Pillows

A soft sleep surface where the infant's head would sink more than an inch into the surface poses 5 times the risk for SIDS and the use of a pillow or covering the head or face with bedding poses 3 times the risk.

### Unsafe Sleep Surfaces

Unsafe sleep surfaces such as sofas, waterbeds, couches, or day beds have been accepted as posing an increased risk for SIDS whether the baby is with a parent or alone. The risk of suffocation for infants who slept in cribs and in adult beds was compared and it was found that the risk for suffocation among infants in adult beds was 40 times higher than the risk for suffocation in cribs.

### Bed Sharing

Some forms of sharing a sleep surface, such as sofas, waterbeds, couches, or day beds have been accepted as posing an increased risk for SIDS. The controversy regarding the risks or benefits of bed sharing focuses on the sharing of the parental bed. Most of the research has identified a relationship between bed sharing and an increased risk of SIDS.

### Infant Characteristics

Infant characteristics associated with increased risk of SIDS include: male gender, prematurity, low birthweight, and admission to a neonatal unit. SIDS deaths peak at 3 months of age.

### Maternal Characteristics

Maternal characteristics associated with increased risk of SIDS include: becoming a parent at a young age, single parenting, having multiple children, using alcohol and/or drugs during pregnancy, the late initiation of prenatal care, not attending prenatal classes, and lower socioeconomic status.

## What is Sudden Infant Death Syndrome?

Sudden infant death syndrome (SIDS) occurs when a sleeping, seemingly healthy infant less than one year of age, dies for no apparent reason. The accepted definition of SIDS is:

*“the sudden death of an infant under one year of age, which remains unexplained after a thorough case investigation, including performance of a complete autopsy, examination of the death scene, and review of the clinical history”*  
(Willinger, James & Catz, 1991).

SIDS is the leading cause of infant death in developed countries. Despite dramatic reductions in SIDS deaths over the last decade in Canada and around the world, SIDS is still the leading cause of death for Canadian infants between 28 days and one year of age. In Canada in 1999, 144 or 26% of all post-neonatal deaths were caused by SIDS (Statistics Canada, 2002).



## Further Reading

American Academy of Pediatrics. (2005). The changing concept of sudden infant death syndrome: Diagnostic coding shifts, controversies regarding the sleeping environment, and new variables to consider in reducing risk. Policy Statement. *Pediatrics*, 116, 5, 1245-1255.

British Columbia Coroners Service, Child Death Review Unit. (n.d.). Special Report: Infant Deaths 2003-2004.

Calgary Health Region, Regional Infant Sleep Committee (2006). Examining the Evidence Regarding Infant Sleeping Practices and Sudden Infant Death Syndrome. Calgary, Alberta: Author.

Canadian Pediatric Society. (2006). Safe Sleep for Babies. Caring for Kids. Retrieved April 12, 2007 from <http://www.caringforkids.cps.ca/babies/SafeSleepForBaby.htm#How>.

Canadian Pediatric Society. (2004). Recommendations for Safe Sleeping Environments for Infants and Children. *Paediatrics & Child Health*, 9, 9, 659-663.

Carpenter, R.G., Irgens, L.M., Blair, P.S., England, P.D., Fleming, P., Huber, J., Jorch, G. & Schreuder, P. (2004). Sudden unexplained infant death in 20 regions in Europe: Case-control study. *Lancet*, 363, 185-91.

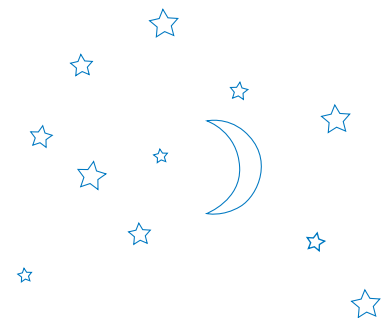
McKenna, J. & McDade, T. (2005). Why babies should never sleep alone: A review of the co-sleeping controversy in relation to SIDS, bedsharing and breast feeding. *Paediatric Respiratory Reviews*, 6, 134-152.

Mitchell, E.A., Taylor, B.J., Ford, R.P.K., et al. (1992). Four modifiable and other major risk factors for cot death: The New Zealand Study. *Journal of Paediatric Child Health*, 28 (Supplement 1) S3-8.

Scragg, R., Mitchell, E.A., Taylor, B.J., Stewart, A.W., Ford, R.P.K., Thompson, J.M.D., Allen, E.M., & Becroft, D.M. (1993). Bedsharing, smoking and alcohol in the sudden infant death syndrome. New Zealand Cot Death Study Group. *British Medical Journal*, 307, 1312-1318.

Statistics Canada, Health Statistics Division, Mortality-summary list of causes 1999. (2002) as cited in Rusen, I.D., Liu, S., Sauve, R., Joseph, K.S., & Kramer, M.S. (2004). Sudden infant death syndrome in Canada: Trends in rates and risk factors, 1985-1998. *Chronic Diseases in Canada*. 25, 1. Retrieved April 20, 2006 from [http://www.phacaspc.gc.ca/publicat/cdic-mcc/25-1/a\\_e.html](http://www.phacaspc.gc.ca/publicat/cdic-mcc/25-1/a_e.html).

Willinger, M., James, L.S. & Catz, C. (1991). Defining the sudden infant death syndrome (SIDS): Deliberations of an expert panel convened by the National Institute of Child Health and Human Development. As cited in Beckwith, J.B.(2003). Defining the sudden infant death syndrome. *Archives of Pediatrics and Adolescent Medicine*, 157, 286-290.



FOR MORE INFORMATION ON

**Safe Infant Sleep Practices & Sudden Infant Death Syndrome (SIDS)**

go to [www.calgaryhealthregion.ca/3cheers](http://www.calgaryhealthregion.ca/3cheers)