



# Preventing infant death: Safe Sleeping for infants

#### Recommendations from:

- The American Academy of Pediatrics (AAP)
- The North American Society for Pediatric Gastroenterology, Hepatology, and Nutrition (NASPGHAN)
- American Public Health Association
- National Resource Center on Child Health and Safety



Parents do what they see being done in the Hospital...

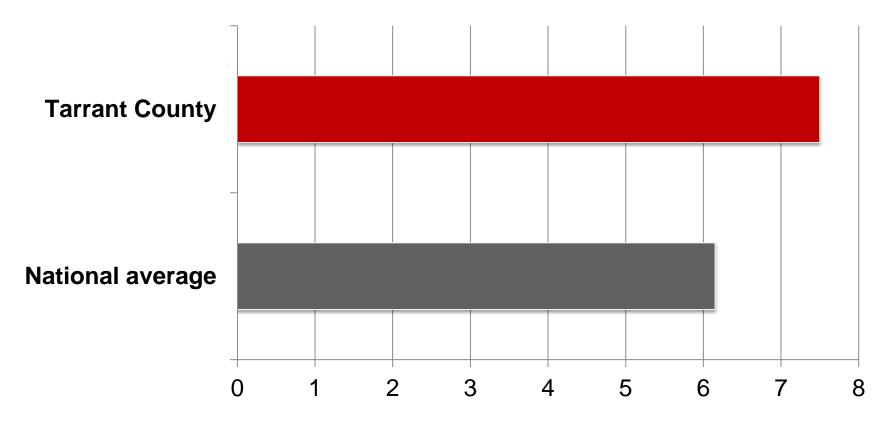
Not what they are verbally instructed to do.

Mothers who saw their infant being placed in the prone position by hospital personnel were significantly more likely to place their infant in the prone position compared with mothers who observed their infant in a non-prone position.

Brenner, et. al. (1998)

## Infant mortality rate:

infant deaths per 1000 live births in 2012



Fetal Infant Mortality Review, Tarrant County: Study findings and recommendations from the Tarrant County FIMR Case Review Team, 2008-2010. Tarrant County Public Health, January 2013.

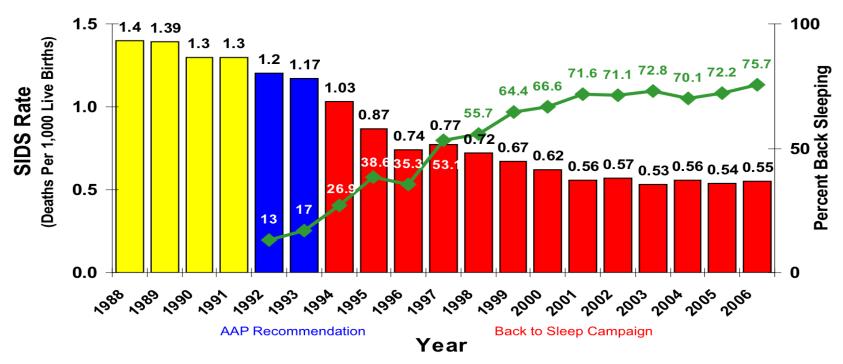
## 1992: American Academy of Pediatrics campaign to reduce infant mortality

- In 1992, SIDS was thought to be the cause of death in a majority of sleep-related infant deaths
- The Back to Sleep campaign reduced the number of infant deaths by 50%



### SIDS Rate and Back Sleeping

(1988 - 2006)

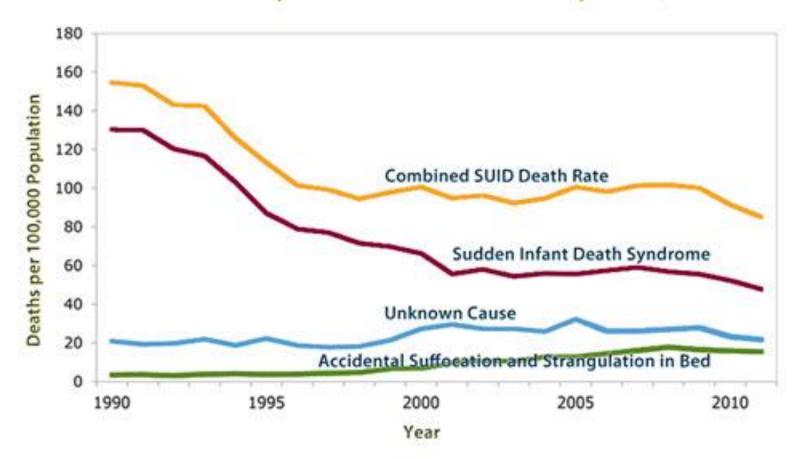


SIDS Rate Source: CDC, National Center for Health Statistics, Sleep Position Data: NICHD, National Infant Sleep Position Study.

# If not SIDS, what causes the remaining 50% of infant deaths?

- Causes of Sudden Unexpected Infant Death (SUID):
  - Sudden Infant Death Syndrome (SIDS)
  - Unknown Cause
  - Accidental suffocation and strangulation in bed (ASSB)

#### Trends in Sudden Unexpected Infant Death Rates by Cause, 1990-2011



"Unintentional suffocation is the leading cause of injury-related death among children less than a year old.

Seventy percent of suffocation deaths among infants are from accidental suffocation or strangulation in bed."

-Safe Kids Worldwide, http://www.safekids.org/suffocation-prevention-and-sleep-safety

## Sleep Environment Risks for Younger and Older Infants *Pediatrics*, July 2014

- 8,207 sleep-related infant death reports from 24 states between 2004 and 2012, Colvin and colleagues found:
- 69% of all deaths occurred while infants were bed-sharing
- In only 33% of deaths were one or more "dangerous" objects (i.e., pillows, blankets, bumper pads, stuffed toys, clothing, cords) found in the sleep environment
- It is impossible to make bed sharing safe for infants.

Jeffrey D. Colvin, MD, JD, Vicki Collie-Akers, PhD, MPH, et al. Sleep Environment Risks for Younger and Older Infants, *Pediatrics*, 2014: http://pediatrics.aappublications.org/content/early/2014/07/09/peds.2014-0401



## American Academy of Pediatrics Policy Statement on SIDS and other Sleep Related Deaths (2011)

#### **Level A recommendations:**

- Back to sleep for every sleep
- Use a firm sleep surface
- Room-sharing without bed-sharing is recommended
- Keep soft objects and loose bedding out of the crib
- Pregnant women should receive regular prenatal care
- Avoid smoke exposure during pregnancy and after birth
- Avoid alcohol and illicit drug use during pregnancy and after birth
- Breastfeeding is recommended
- Consider offering a pacifier at nap time and bedtime
- Avoid overheating
- Do not use home cardiorespiratory monitors as a strategy for reducing the risk of SIDS

American Academy of Pediatrics (AAP) Technical Report ~ SIDS and Other Sleep-Related Infant Deaths: Expansion of Recommendations for a Safe Infant Sleeping Environment; Pediatrics, 128:e000, 2011.

Use a firm sleep surface, such as a mattress in a safety-approved\* crib, covered by a fitted sheet.

Do not use pillows, blankets, sheepskins, or crib bumpers anywhere in your baby's sleep area.

Keep soft objects, toys, and loose bedding out of your baby's sleep area.

> Do not smoke or let anyone smoke around your baby.



\*For more information on crib safety guidelines, contact the Consumer Product Safety Commission at 1-800-638-2772 or http://www.cpsc.gov. Make sure nothing covers the baby's head.

Always place your baby on his or her back to sleep, for naps and at night.

Dress your baby in light sleep clothing, such as a one-piece sleeper, and do not use a blanket.

Baby should not sleep in an adult bed, on a couch, or on a chair alone, with you, or with anyone else.

### A pillow can cause airway obstruction



## Blankets in the sleeping environment increase the risk of suffocation.





The "feet to foot" practice is no longer recommended in day care settings due to infant suffocations.



- Parents and clinicians may be concerned about a baby refluxing or choking while sleeping flat on their back in the crib.
- "Reflux precautions," including side sleeping, prone sleeping, head of bed elevation, infant positioners, crescent-shaped infant pillows, and car seat sleeping are no longer recommended for most infants.

- Face down (prone) and side (lateral) positions increase the risk of sudden infant death syndrome (SIDS)
- The risk of SIDS outweighs the benefit of prone or lateral sleep position on reflux
- In most infants from birth to 12 months of age, back (supine) positioning during sleep is recommended.

Joint Recommendations of the North American Society for Pediatric Gastroenterology, Hepatology, and Nutrition (NASPGHAN) and the European Society for Pediatric Gastroenterology, Hepatology, and Nutrition (ESPGHAN)

 Infant reflux is the same or worse with the head of bed elevated compared to flat on back (supine) positioning.

Sitting in a car seat (semisupine) makes reflux worse.

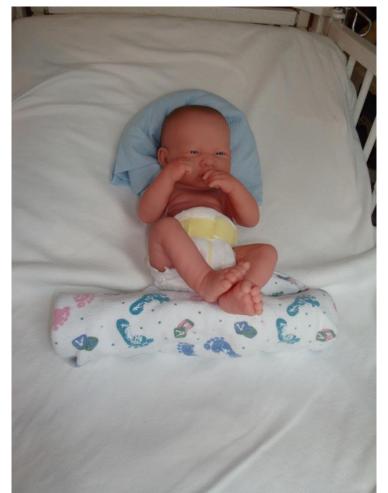
Joint Recommendations of the North American Society for Pediatric Gastroenterology, Hepatology, and Nutrition (NASPGHAN) and the European Society for Pediatric Gastroenterology, Hepatology, and Nutrition (ESPGHAN)

### A "semisupine" position actually makes reflux worse.





# Unapproved positioning aids introduce risk to the infant sleep environment. HOB elevation makes reflux worse.





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Infants can suffocate from airway obstruction from neck flexion or being face down on a soft object

#### An infant can hang or strangle on car seat straps if a car seat on the floor is overturned or falls from a counter.





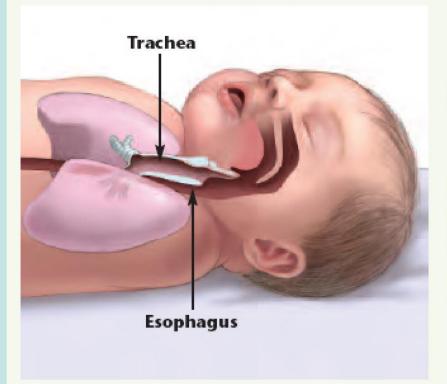
"Reflux is not a common cause of unexplained crying, irritability, or distressed behavior in otherwise healthy infants."

Joint Recommendations of the North American Society for Pediatric Gastroenterology, Hepatology, and Nutrition (NASPGHAN) and the European Society for Pediatric Gastroenterology, Hepatology, and Nutrition (ESPGHAN)

# "In the majority of infants with apnea or apparent life-threatening events (ALTEs), reflux is not the cause."

Joint Recommendations of the North American Society for Pediatric Gastroenterology, Hepatology, and Nutrition (NASPGHAN) and the European Society for Pediatric Gastroenterology, Hepatology, and Nutrition (ESPGHAN)

#### ORIENTATION OF THE TRACHEA TO THE ESOPHAGUS



Esophagus
Trachea

Figure 3.
Upper-Respiratory Anatomy: Baby in the Back Sleeping Position

Figure 4. Upper-Respiratory Anatomy: Baby in the Stomach Sleeping Position

U.S. Department of Health and Human Services, National Institute of Child Health and Human Development. (2006). Continuing education program on SIDS risk reduction. Curriculum for nurses (NIH Publication No. 06-6005). Retrieved from <a href="http://www.nichd.nih.gov/publications/pubs/documnets/Cont">http://www.nichd.nih.gov/publications/pubs/documnets/Cont</a> Educ Prog Nurses SIDS rev.pdf

American Academy of Pediatrics, American Public Health Association, and National Resource Center on Child Health and Safety:

Swaddling is no longer recommended in child care settings

### Swaddling increases risk for:

- Hip dysplasia
- Overheating (SIDS)
- Respiratory infections
- Suffocation

#### When should I stop swaddling?

 "Given that we see deaths from babies who are swaddled and end up on their stomachs by 2-2½ months, I get really nervous when babies are swaddled past the age of 8 weeks."

-Dr. Rachel Moon, author of the AAP Safe Sleep guidelines and chair of the Task Force on SIDS

## Swaddling introduces the risk of suffocation on the swaddling blanket







## This is a natural position for an infant.

This is the position of infants tightly swaddled in a blanket.





## The safest place for your baby to sleep is in a crib.

To keep your baby safe from suffocation while sleeping:



For more information on how to keep your child safe, visit

#### cookchildrens.org/safefamily

















- Cook children's safe infant sleep video (A Spanish version will be available shortly): <a href="https://www.youtube.com/watch?v=J0YsvzcEQyY">https://www.youtube.com/watch?v=J0YsvzcEQyY</a>
- A John's Hopkins video with mothers talking about the suffocation deaths of their infants:

https://www.youtube.com/watch?v=yBBiG6e4xRw

\*This YouTube video used with permission of Health Babies Baltimore, MD