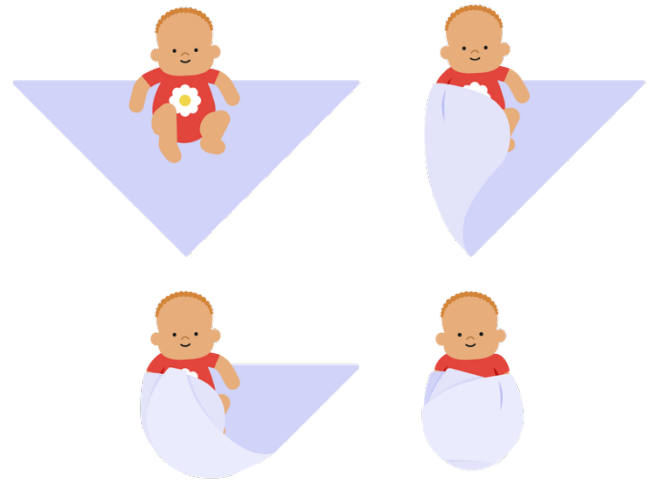


Swaddling - The Research

Swaddling is defined as the close wrapping of an infant, typically using a light cloth that leaves the head exposed. Although styles vary across cultures, the practice has been an integral part of infant care for thousands of years. Swaddling has been associated with several potential benefits, including longer periods of quiet sleep, fewer spontaneous arousals, improved neuromuscular development in very low birth weight infants, and reduced distress among premature infants and those experiencing neonatal abstinence syndrome. However, it may also increase the risk of hip dysplasia, hyperthermia, pneumonia, and upper respiratory tract infections ¹.



Research investigating the association between swaddling and SIDS has produced mixed results. In a cross-sectional survey, parents reported that swaddling was an effective method for comforting their infants. Parents in this study who routinely used swaddling were also more likely to place their infants in the supine position (on their backs) for sleep. The study suggested that swaddling could serve as a useful intervention for parents who struggle to follow the “Back to Sleep” guidance because their infants have difficulty sleeping on their backs ².

However, a meta-analysis of studies in the 1990s, before or during the implementation of the “Back to Sleep” campaigns found a small but statistically significant increase in SIDS risk among swaddled infants, with risk increasing with age. The authors concluded that the evidence did not support swaddling younger infants in the supine position as a protective measure against SIDS and emphasized the need for further research to determine whether swaddling poses any measurable risk ¹.

A later study in the UK, conducted after the “Back to Sleep” campaign was too heterogenous to be included in the meta-analysis above. Nevertheless, it reported that one-quarter of SIDS cases involved swaddled infants, compared with only 6% of matched controls ³. A retrospective review of incident reports submitted to the United States Consumer Product Safety Commission between 2004 and 2012 identified eight deaths associated with swaddle wraps, most of which involved infants sleeping in the prone (face-down) position ⁴.

Some infants are placed in sleeping sacks, as an alternative to either wrapping in blankets or swaddling. In research in the 1990s, one case-control study in the Netherlands found an association between the use of light cotton sleeping sacks and a decreased incidence of SIDS, with authors postulating that this was because it facilitated supine placement and reduced rolling to the prone position ⁵.

The physiological effects of swaddling have been examined in several small laboratory studies. Swaddled infants have been shown to exhibit lower basal heart rates but greater increases in heart rate following a noise stimulus ⁶. Conversely, other studies have reported that swaddled infants experience fewer spontaneous arousals from sleep ^{7,8}. Further research found that swaddling influenced sleep duration and heart rate variability only in infants who had not been previously swaddled, suggesting that habitual swaddling may alter physiological responses ⁹. The

relationship between these physiological findings and the epidemiological data on sudden infant death syndrome (SIDS) remains unclear.

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Frequently asked questions

What does the research show?

Swaddling is to snugly wrap a baby in a light cloth. It has been used for thousands of years and may help babies stay calmer and help with their development, especially if they are premature. But it also carries risks, such as hip problems, overheating, and some infections. Studies on swaddling and SIDS show mixed findings: some research suggests a small increase in SIDS risk, especially for older or improperly positioned infants, while other evidence highlights dangers mainly when babies are placed face-down.

Parents often say swaddling helps calm their babies and makes it easier to place them on their backs for sleep. Baby sleep bags may offer a safer alternative by helping to keep infants in the supine position. Laboratory studies show swaddling affects heart rate and arousal, but it's still unclear how these changes relate to SIDS.

Is there any time I shouldn't swaddle my baby?

You should not swaddle a baby if you are bedsharing or if your baby has an infection or a fever.

When should I stop swaddling?

Once a baby shows signs of rolling, stop swaddling them with their arms wrapped inside the material. This is because they could roll onto their tummy and not be able to roll back again as they can't use their arms. The safest sleeping position for a baby is on their back, so we don't want to risk them getting stuck on their tummy.

What is the key takeaway for families?

Some parents choose to swaddle their baby. Follow safer sleep advice to reduce the risk of SIDS.