

Sleep in Preterm Infants

SIDS

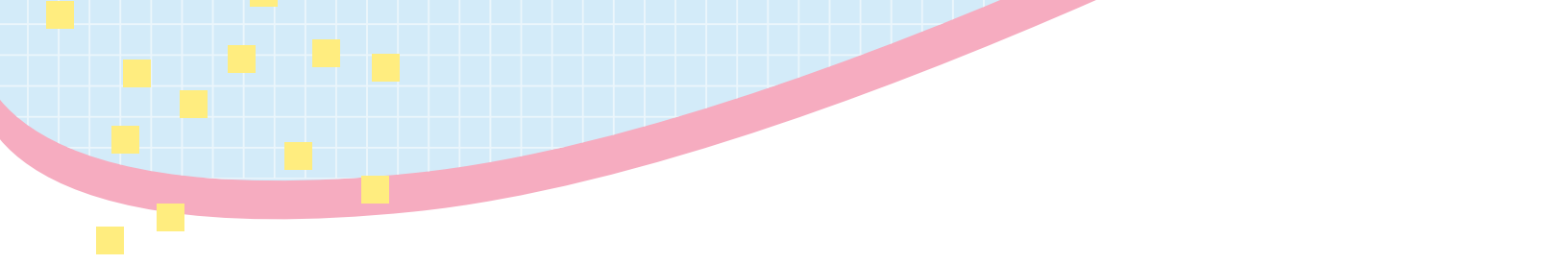
- Preterm infants are known to be at higher risk for SIDS; high-risk period lasts up to 10 months.
- To reduce risk:
 - Use supine positioning on a firm mattress with no fluffy or loose bedding.
 - Be sure the infant's face remains uncovered.
 - Do not allow smoking in the household.
 - Support breastfeeding through the first year of life.
 - Consider offering a pacifier to infants >1 month of age at naptime.

Sleep States

- Active sleep
 - Respiration is uneven and primarily costal in nature; REM occurs intermittently.
 - Sporadic motor movements may occur with low muscle tone between these movements.
 - May have a functional role in stimulating the nervous system, encouraging growth and maturation.
- Quiet sleep
 - Respiration is regular and abdominal in nature.
 - Maintains tonic level of muscle tone.
 - Motor activity is limited to occasional startles, sighs, or other brief movements.

Development

- As development progresses:
 - Awake time and quiet sleep time increases, and active sleep without REM decreases.
- Newborn infant spends 2/3 of each day asleep; by 6 months only half of each day is spent asleep.
 - Sleep consolidation is an important aspect of the infant's sleep development.

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- Infants after 28 weeks corrected postmenstrual age may benefit from circadian lighting cycle.
 - Studies have shown that these benefits are most pronounced after discharge and persist for several months:
 - More organized and longer sleep cycles.
 - Improvements in weight gain.

Sleep Patterns and Cognitive Development

- Development of sleep-wake cycles likely has major impact on development of most infant behaviors.
- Term infants who sleep for long, quiet periods early in the night and infants who sleep for longer periods uninterrupted are more likely to obtain high scores on the Bayley mental scale at 6 months and 1 year of age.
- Sleep problems are more common in preterm infants, especially in the early weeks at home.
 - Caused by: immature sleep-wake cycles, disruptions in sleep patterns caused by the need to give medications, and heightened parental concerns about infant's vulnerability.
 - If severe, may benefit from sleep training or referral to sleep specialist.
- To help the infant's state regulation, swaddle the infant, keeping the infant's arms and legs close to the body, and avoid sudden movements.