

Reducing number of vulnerable infants cornerstone to decreasing SIDS mortality

by Ralph A. Franciosi, MD

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Healthy People 2000 is a national campaign which began in 1990 to improve the health of Americans. Its top priorities are infant health and reducing infant mortality (from birth to age 1) from 9.2 deaths per 1,000 live births to seven.

Infant mortality is divided into neonatal (death occurring from birth to 27 days of age) and post neonatal (death occurring between 28 days and 1 year). The most common causes of death differ in the two periods. For example, deaths that occur in the neonatal period often are due to congenital malformations (birth defects) while deaths occurring in the post-neonatal period most often are from SIDS.

Decreasing the numbers of vulnerable infants by reducing prenatal risk factors associated with infant death are the cornerstone for reducing infant mortality. Such risk factors include prematurity, low birth weight and maternal smoking.

I have reviewed data on infant mortality collected by The Center for Disease Control and Prevention (CDC). It reveals a 21 percent decline in total infant mortality between 1990 and 1996. During that same time period, there was a 33 percent decline in neonatal deaths, a 26 percent decline in post neonatal deaths and a 38 percent decline in SIDS deaths.

Sleep environment was identified as a risk factor for SIDS, especially prone sleeping (on the tummy). Further studies have shown sleeping prone places infants in a position where the face can be thrust into a soft sleep surface, such as a pillow or quilt, and trap exhaled carbon dioxide (CO₂). The CO₂ build-up cannot be monitored by SIDS infants because of a birth defect in their brainstem.

The emphasis only on prone sleep position implies a change in sleep position can prevent SIDS. But, we must remember, SIDS also occurs in infants who sleep on their backs (supine). What often is not stressed is that SIDS infants are vulnerable and succumb to triggers such as soft sleep surfaces.

Additionally, certain infants, those with gastrointestinal reflux (severe spitting up), should sleep prone, as advised by their pediatrician. For these infants, a safe sleep environment is a firm sleep surface free of pillows and quilts.

In conclusion, logical assumption for the decline of SIDS cases is not only the reduction of risk factors, but the work of Healthy People 2000, the Maternal and Child Health Division and the state health department which promote prenatal care and healthier lifestyles which has decreased the number of vulnerable infants.