

Infrared thermography in newborns: the first hour after birth.

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"OBJECTIVE: It was the aim of this study to investigate the surface temperature in newborns within the first hour after delivery. Furthermore, the influence of different environmental conditions with regard to surface temperature was documented. METHODS: Body surface temperature was recorded under several environmental conditions by use of infrared thermography. 42 newborns, all delivered at term and with weight appropriate for date, were investigated under controlled conditions. RESULTS: The surface temperature immediately after birth shows a uniform picture of the whole body; however, it is significantly lower than the core temperature. Soon after birth, peripheral sites become cooler whereas a constant temperature is maintained at the trunk. Bathing in warm water again leads to a more even temperature profile. Radiant heaters and skin-to-skin contact with the mother are both effective methods to prevent heat loss in neonates.

CONCLUSIONS: **Infrared thermography is a simple and reliable tool for the measurement of skin temperature profiles in neonates. Without the need of direct skin contact, it may be helpful for optimizing environmental conditions at delivery suites and neonatal intensive-care units.**" Ref. S. Karger AG, Basel