Stable Preterm Infants Gain More Weight and Sleep Less after Five Days of Massage Therapy

Conclusion:
Stable preterm infants gained more weight and slept less after five days of massage therapy than infants who did not receive massage, according to a recent study.

- Source: Touch Research Institute, University of Miami School of Medicine, and the Center for Prenatal Assessment and Human Development, Emory University, with support from Johnson and Johnson. Authors: John N.I. Dieter, Ph.D.; Tiffany Field, Ph.D.; Maria Hernandez-Reif, Ph.D.; Eugene K. Emory, Ph.D.; and Mercedes Redzepi, Psy.D. Originally Published in the Journal of Pediatric Psychology, 2003, Vol. 28, No. 6, pp. 403-411. "Stable Preterm Infants Gain More Weight and Sleep Less after Five Days of Massage Therapy" was conducted by staff at the Touch Research Institutes, University of Miami School of Medicine; and the Center for Prenatal Assessment and Human Development, Emory University.

Infants were randomly assigned to either the massage-therapy group or the control group. Sixteen infants, approximately three weeks old, were in each group.

Massage therapy started the day after group assignment and continued for five consecutive days. Each day, the first 15-minute massage happened about one hour after the morning feeding; the second happened about one half-hour after the midday feeding; and the third happened approximately 45 minutes after the second massage.

The massage sessions comprised five minutes of tactile stimulation, five minutes of kinesthetic stimulation and then another five minutes of tactile stimulation.

Data on weight gain, formula intake, kilocalories, bowel movements and sleep/wake behavior of the infants in the massage-therapy group were taken from daily nursing notes and compared with the control group.

Infants' sleep/wake behavior was recorded by observers for 30 minutes, at the same time, on the first and last days of the study. Observers coded the behavior according to whether it was non-REM sleep, active sleep without REM, REM sleep, drowsy, quiet alert, active alert or crying.

Results of the study showed that the massage-therapy group gained an average of 26 grams more per day than the control group, a 53-percent greater average daily weight gain than the control infants.

"Five days of massage therapy also led to a significant reduction in sleep states and an increase in drowsiness," state the study's authors. "Along with the statistically significant increase in drowsiness, trends shown by the massage therapy infants may reflect acceleration in the developmental course of sleep/wake patterns in preterm infants."

Daily formula intake, kilocalories and number of bowel movements did not differ between the two groups.

"Healthy, low-risk preterm infants gained more weight and slept less with just five days of massage, in contrast to 10 days in previous studies," state the authors. "That the promotion of weight gain was
so rapid suggests that the dose-response ratio may be lower than previously thought.

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