

Infants are Calmer when Massaged with Oil

Conclusion:

Infants who receive massage with oil show fewer stress behaviors, have lower cortisol levels and are more relaxed than infants massaged without oil, according to a research study.

Source: Touch Research Institute, Research originally published in the *Pre- and Perinatal Psychology Journal*, 1996, Winter 11(2).

The study was conducted by researchers from the Touch Research Institute at the University of Miami School of Medicine, and was first published in the *Pre- and Perinatal Psychology Journal* in 1996. The goal of the study was to determine the benefits of massage on infants with and without oil. Results showed that infants massaged with oil had fewer stress behaviors, were more relaxed, showed a more significant decrease in the stress-related hormone cortisol and a greater increase in vagal activity (indicating a slowing down of physiological processes) than infants massaged without oil.

Sixty infants were randomly placed in one of two groups: a massage-with-oil group and a massage-without-oil group. The infants were healthy and about one month old. The same massage therapist massaged all the infants.

Each infant received a 15-minute massage between naps. The infant was first placed on a mat covered with a cotton blanket. The massage therapist began with gentle strokes on the sides of the infant's face, and (in the case of the massage-with-oil group) applied baby oil with long strokes from hip to foot. The lower legs were squeezed lightly with a wringing motion, and the feet were massaged using the thumb over the entire bottom of the foot. The upper legs were rubbed in a milking fashion, ending with long strokes on both legs.

The torso was then massaged in a hand-over-hand, paddle-wheel fashion, starting high and moving down. The chest was stroked with flat fingers, moving outward from the middle. The stroking continued over the shoulders to include both the chest and shoulders. More oil was applied and the arms were massaged with long, gentle strokes from shoulders to hands, repeating the procedure used on the legs. The massage was completed with strokes along with the face and forehead, circular motions over the jaw, and finger rubs of the nose, cheeks, chin and ears.

Several measurements were taken before and after the massage, and the infants were videotaped during the massage. Measurements included a vagal tone (an indicator of parasympathetic activity) taken from the heart-rate recording, an EKG reading before and during the massage, and a saliva sample to show cortisol levels. The videotape was coded for infant limb movements, stress behaviors such as facial grimaces or clenched fists and aversion behaviors such as looking away.

The measurements results showed that infants who were massaged with oil spent more time being quiet, showed fewer stress behaviors, and had fewer head aversions, indicating a more relaxed state. Their cortisol levels decreased more than the group massaged without oil.

"The greater effectiveness of massage with oil versus no oil is probably also not surprising given that the lubricity of oil means less friction for the therapist and the infant. With oil the stroking movements can be smoother and more rhythmic, which may further enhance the effects inasmuch as infants are readily soothed/pacified by rhythmic stimulation," the study stated.

Massage with oil enhances parasympathetic activity and therefore encourages relaxation in infants, according to the research. "These findings tentatively suggest that massage, especially with oil, can

reduce the stress levels of normal infants. The therapy procedure is easy to learn and may contribute to shorter hospitalizations as it has in high-risk infants. Thus, massage would be a cost-effective procedure for caregivers to learn and then teach to parents so the positive benefits can continue across infancy."

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