

# Adapting Touch Techniques For The Neonate

## Liz Tipping

Neonatal Sister St Mary's Hospital Manchester

My intention in writing this paper is to share developments in introducing massage within the Neonatal Intensive Care Unit (NICU). Giving touch to such fragile babies requires sensitivity and mindfulness. Additionally, the practitioner needs to be considerate of the emotional wellbeing of the parent whilst participating in this activity.

### Introduction

The sense of touch develops early in the human embryo, with responses noted at 6 weeks gestation (Montagu 1986); it is therefore not surprising that massage has such an impact on the neonate (Adamson 1996). The benefits of massage are said to:-

Improve circulation by allowing oxygen and nutrients to reach the cells and tissues of the body

Help in the elimination of waste

Act as a natural pain killer as it aids in the release of serotonin

Soothe the peripheral and central nervous system

Enhance the immune system

(Field 2003; 2000)

Parents of neonates have feelings of being too scared to touch their babies with confidence, and often feel helpless and 'out of control' (Tipping & Mackereth 2000). Lengthy stays in the NICU may increase the risk and duration of postnatal depression in mothers. Field (1998) found that teaching massage to depressed mothers helped to increase touching behaviour and improved their mood state and interaction behaviour. As neonates are small, fragile and unstable babies, they are given 'minimal' handling; however, Porter (1996) notes that although minimal handling caters for the physical needs of a baby, it does not take care of their emotional and psychological needs. Babies nursed on neonatal units are also subjected to many invasive procedures, and at the same time are often deprived of gentle human touch. These babies are likely to create a defensive shell to protect themselves; in the short term this is useful, but in the long term it is believed to lead to prolonged regression and even autism (Russell 1993).

It is therefore important to teach parents appropriate touch; by observing cues, they will be aware when baby is becoming overstimulated, helping to reduce stress in both the baby and parent. Bond (2002) describes this as 'positive touch' that incorporates "handling, holding, kangaroo care and massage" (pg 477). These techniques help parents: to gain confidence in their parenting g skills, to understand their babies 'better than the staff' and empowers them in an otherwise helpless situation. In the NICU the parents can be taught gentle touch techniques called 'containment holds' which can:-

- Help to centre and calm the provider
- Provide 2-way gentle holding contact
- Give comfort and 'contain' babies during procedures

- Settle distressed and 'angry' babies
- Promote self-regulation in the baby

These holds are always done with the permission from the baby by observing cues from them.

### **Containment Hold 1**

This is used for very sick infants who may find any touch over stimulating. Place one hand 2-3 inches above baby's head, and the other 2-3 inches over baby's legs/abdomen (fig 1).



### **Containment Hold 2**

This is used for fragile babies who can tolerate some touch.

Lay one hand gently on baby's head and place the other gently over the legs/abdomen (fig 2).



As the baby becomes stronger and progresses to high care and nursery, parents can then be taught infant massage which helps to improve parenting skills and bonding.

## Case Studies

The following two case studies illustrate how six massage training sessions with parents helped after their babies were discharged from the NICU. The purpose in sharing these accounts is to highlight the importance of understanding the problems and experience associated with being a parent of a fragile neonate.

### Box 1

#### Baby born at 26 weeks gestation

This baby was a normal delivery at 26 weeks gestation, weighing 980gms. (2lb.4ozs). He was very sick and required ventilation for three months. There were times when his parents were unsure whether he would survive, especially when at two months he developed Necrotizing Enterocolitis (NEC), which is an inflammation of the bowels. He needed emergency surgery when his gut perforated, requiring an ileostomy and insertion of a central line. He required further surgery when he was four months old for reversal of the ileostomy. During this time he also had the following problems to cope with:-

- Numerous infections requiring antibiotics
- Prolonged jaundice
- Prolonged oxygen therapy for chronic lung disease
- Delay in feeding and delay in tolerating full milk feeds

On discharge he still had a tendency to posit and suffered from colic. He also had a tightening of either the Sternocleidomastoid or the Trapezius muscle on the right, having a tendency to turn his head in that direction. This is common with many extremely preterm babies; a possible explanation is the baby is often handled from the right side of the incubator by parents, nursing and medical staff.

On the first massage session the baby (box 1) showed very definite avoidance cues when his feet were massaged, pulling them away and crying. The massage was immediately stopped in accordance with massage protocols, until he had settled. It was noted that babies on NICU receive many painful heel stabs during this time, so the therapist encouraged his mum to play with baby's feet when he was quietly alert, perhaps licking and gently sucking his toes to encourage him that not all touch is painful. Baby's reaction to having his feet touched during massage sessions slowly improved with each visit.

A very noticeable difference between this preterm baby and babies born nearer to term, was that this baby tolerated much less massage before becoming over stimulated or tired. The recommendation for massage on premature babies is fifteen minute sessions, which includes a combination of massage and gentle stretches (Field 2003). Warren (2001) states that a full head to toe massage is not usually appropriate with pre-term babies until they become much more robust. Drehobl & Fuhr (2000) state the importance of assessing clinical status and medical history, and to understand the physiological changes that can occur through massage. It is noticeable that babies who are more mature at birth will tolerate massage earlier (box 2).

### Box 2

#### Baby born at 35 weeks gestation

This little girl was admitted to NICU following an emergency caesarean section for excessive pain prior to a placenta abruption at 35 weeks gestation. She was initially stable, being nursed in an incubator with ambient oxygen for her condition of Surfactant Deficient Lung Disease (SDLD). Over the next 3 days her condition gradually worsened, eventually requiring ventilation. Over the next 10 days she slowly improved, finally being allowed home when she was 3 weeks old.

Teaching massage with this baby (box 2) was a different experience, for although she had been very sick she was more mature at 35 weeks and tolerated a full massage within just a few sessions. Throughout the six sessions she did object to her face being massaged; possibly a lasting memory of ventilation tubes attached to her face.

When questioned, both mothers felt individual sessions were safer for their babies who they still perceived as vulnerable, but both would have preferred a group session for themselves to help them integrate with other mothers in the area.

## **Conclusion**

As a health care professional I have learned the importance of watching, listening and hearing the babies, and responding to their cues. I have gained enough confidence to teach these skills to the parents to help them understand what their baby is telling them, and to understand the importance of appropriate touch instead of minimal handling. A review of the literature has given integrating baby massage into the healthcare setting.

## **References**

- Adamson S** 1996 *Teaching Baby Massage to New Parents* Complementary Therapies in Nursing and Midwifery. Vol. 2: 151-159
- Bond C** 2002 *Positive Touch and Massage in the Neonatal Unit: a British Approach* Seminars in Neonatology 7(6) 477-486
- Drehobl KF. & Fuhr MG.** 2000 *Pediatric Massage: For the Child with Special Needs* Therapy Skill Builders. USA.
- Field T** 2003 *Preterm Infant Massage Therapy Studies: An American Approach* Seminars of Neonatology 7: 487-494
- Field T** 2000 *Touch Therapy* Churchill Livingstone. London
- Field T** 1998 *Maternal Depression Effects on infants and Early Interventions* Preventative Medicine. 27. 200-203
- Kuhn CM, Schanberg SM.** 1998 *Responses to Maternal Separation: Mechanisms and Mediators* International Journal of Developmental Neuroscience, Vol.16 (3/4) 261-270
- Montagu A** 1986 *Touching: The Human Significance of Skin* Harper & Row. New York.
- Porter SJ** 1996 *The Use of Massage for Neonates Requiring Special Care* Complementary Therapies in Nursing & Midwifery 2: 93-96
- Russell J** 1993 *Touch and Infant Massage* Paediatric Nursing 5(3) 8-11
- Tipping E, & Mackereth PA.** 2000 *A Concept Analysis: The Effect of Reflexology on Homeostasis to Establish and Maintain Lactation* Complementary Therapies in Nursing & Midwifery. Vol.6 (4): 189-198
- Walker P.** 2001. *Baby Massage: A Practical Guide to Massage and Movement for Babies and Infants.* Judy Piatkus. London.
- Warren I.** 2001 *Guidelines for Infant Developmental Care in the Newborn Nursery 3<sup>rd</sup> Edition.* Winnicott Baby Unit, St.