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### Original Citation

Marshall, Joyce (2012) Midwifery basics. Infant feeding: skin to skin contact after birth. *Practising Midwife*, 15 (10). pp. 36-38. ISSN 1461-3123

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## MIDWIFERY BASICS: Infant feeding

Infant feeding: is the twelfth series of 'Midwifery basics' targeted at practising midwives. It aims to provide information to raise awareness of the impact of the work of midwives on women's experience and encourage midwives to seek further information through a series of activities. In this second article Joyce Marshall considers skin to skin contact between mother and baby immediately after birth.

### 1. Skin to skin contact after birth

#### Introduction

In the UK following the move to hospital birth, in the 1970s and 1980s it was common for mothers and babies to have limited contact in the first hours after birth. Skin-to skin contact is beneficial for all mothers and babies as there is increasing evidence that a lack of time spent in uninterrupted skin-to-skin contact both immediately after birth and beyond can deprive mothers and babies of immediate and long lasting physical and emotional benefits (Bergman 2008).

Mothers are more likely to breastfeed in the first one to four months when they have had early skin-to-skin contact and tend to breastfeed for longer (Moore *et al.* 2012). This article outlines the risks associated with not enabling women and babies to spend time in skin-to-skin contact; considers a baby's behaviour when lying skin-to-skin with his mother immediately after birth; the barriers that may occur to deny women and babies this opportunity and the ways in which skin-to-skin can enhance women's breastfeeding experience later on.

#### Scenario

Rosie has just given birth to her first baby two days after her due date. Her healthy baby boy, Tom, cried for a short while immediately after birth and is now lying prone on Rosie's chest. Tom has been relaxed and sleepy since the birth but is now, 30 minutes later, becoming more awake and is starting to look around. He looks at Rosie's right nipple and pushes his head up and moves it from side to side murmuring slightly as he does so. Rosie looks down at him, strokes his back and talks softly to him.

## **The risks of not enabling women and babies time in skin-to-skin contact**

In all mammals close contact between mother and baby is the norm, so it seems relevant to discuss the risks of not making this possible for all women and babies. Babies separated from their mother show signs of stress; their heart rate and respiratory rate is higher, their blood glucose levels are lower, their blood pressure increases and they cry in short bursts which has been interpreted as a distress cry (Bergman 2008). The touch, warmth and smell of the baby when in skin-to-skin contact causes the release of oxytocin in the mother which not only increases uterine contraction and milk ejection but also reduces stress following the birth and encourages bonding between mother and baby (Uvnas-Moberg & Petersson 2005). It therefore follows that mothers who do not experience skin-to skin contact have lower levels of oxytocin and are likely to be more stressed, experience more blood loss and reduced 'let down' of colostrum. Oxytocin also raises the skin temperature of the mother's breasts which helps to keep the baby warm as it adapts to extra-uterine life. Skin-to-skin contact has also been shown to improve immunity throughout the baby's first year of life.

## **Babies behaviour when left skin-to-skin with their mother after birth**

When a naked baby is placed prone on his mother's bare abdomen or chest this is referred to as skin-to-skin contact. Healthy newborn babies left for a long period (at least an hour) of uninterrupted time in skin-to-skin contact with their mothers immediately after birth display an inborn sequential pattern of behaviour. Most babies pass through nine different phases (see Figure 1).

<b>Phase</b>	<b>Behaviour</b>
<b>1. Birth cry</b>	Intense crying immediately after birth
<b>2. Relaxation</b>	No activity of head , arms or body
<b>3. Awakening</b>	Small thrusts of head, up, down, from side to side

<b>4. Active</b>	Moves head and limbs without moving body, rooting activity
<b>5. Crawling</b>	Pushing which moves body
<b>6. Resting</b>	Rests with some activity such as sucking on hands
<b>7. Familiarization</b>	Infants has reached areola/nipple with mouth, brushing and licking
<b>8. Suckling</b>	Infant starts to suckle
<b>9. Sleeping</b>	Infant has closed its eyes

Figure 1: identified behaviours whilst skin-to skin. Adapted from (Widström et al. 2011)

This sequence of behaviour relies on a number of reflexes, such the stepping-crawling reflex and the rooting reflex and once a baby reaches the breast and starts to feed the sucking and swallowing reflexes are important. Babies use a range of senses to find their way to the breast but it is thought that odour cues are the most important – particularly the smell of the mother’s nipple and later on the smell of the mother’s milk (Widström et al. 2011).

The time that babies take to self-attach to the breast is variable. If left undisturbed after birth and if the mother has not received opiates during labour most babies will attach to the breast around 55 minutes after birth, although it can take some babies considerably longer than this. In one study, some babies took 45 minutes to attach after reaching the breast (Widström et al. 2011).

### Activity 1

What evidence might you discuss with women before birth to raise awareness of the importance of skin-to-skin contact? How might you help women to incorporate this into their birth plans?

Newborn babies are vulnerable during the period of time immediately after birth when they are making the transition to extra-uterine life. At birth the newborn is extremely sensitive to stimuli and feels everything fully. The nerve fibres of smell and touch are connected to the seat of emotional memory and conditioning in the brain and stimulation from contact will 'fire and wire' the infant's brain setting the basis for vital pathways that have life-long effects on a child's emotional well-being (Bergman 2008). Therefore skin-to-skin contact is important for all women and babies not only those who plan to breastfeed.

A baby should be dried and covered across their back with a warmed dry towel whilst lying on the mother skin-to-skin and mother and baby should not be left alone. As a baby is making his way to the breast it is important not to interrupt the sequence of events because if this happens the baby cannot continue where he left off but will have to start again from the beginning (UNICEF Baby Friendly Initiative UK 2009). Helping a baby to attach to the breast at this time may seem helpful but this may be counterproductive as it can lead to the baby having problems attaching and breastfeeding effectively in the future.

## **Activity 2**

Access your Trust infant feeding policy. What is the guidance relating to skin to skin immediately after birth? Does this always happen in your unit? Search for useful video clips demonstrating the behaviour of the baby whilst in skin-to-skin contact that you might recommend to women.

## **Barriers to skin-to-skin contact in the hospital setting**

There are many reasons why mothers who give birth in the hospital setting do not spend time in skin-to-skin contact with their baby. These may relate to routines of care, for example weighing, examining or bathing the baby after birth, the mother needing suturing and/or wanting a wash.

Other reasons may include a busy labour ward where the room is needed for another woman or the belief that the baby will get cold.

If a woman has opiates for pain relief during labour these cross the placenta and lodge in the lipid tissue in the fetal brain affecting the central nervous system and this often impacts on the baby's ability to crawl to the breast and to breastfeed effectively (Smith & Kroeger 2010). The paediatric half-life of drugs is much longer than the adult half-life meaning the active components of drugs remain in the baby's system, often for many hours (Smith & Kroeger 2010).

### **Activity 3**

Consider routines of care in the period immediately after birth in your unit. How might these be changed/improved/alterd to optimise the opportunity for women and babies to have protected time together in skin-to-skin contact? Find out the length of time drugs used in your unit are likely to affect babies after birth.

### **Skin-to-skin contact later on**

Close contact between mother and baby continues to be beneficial for both mother and baby as they develop a relationship. It maybe that women find a 'laid back' breastfeeding position is a natural extension to this and women often find this a more comfortable feeding position or a useful alternative to more traditional ways of feeding (Colson 2005). Skin-to skin contact can be a useful way to solve some of the challenges breastfeeding women encounter in the early days, such as breast refusal or a sleepy baby who is reluctant to feed. Fathers too can hold their baby skin-to-skin but this should be in addition to not instead of skin-to-skin contact with the mother.

## **Reflection on the scenario**

Tom has reached stage 4 of the sequence of behaviours babies go through when in skin-to-skin contact with their mothers. He is responding to the stimuli of touch and smell and is starting to locate his mother's nipple. This will be stimulating a hormonal response in Rosie's body. She will experience raised levels of oxytocin that will not only have a calming effect on her but will elicit maternal feelings of love and affection towards Tom. Rosie is aware of the calming effect this contact has on him after the birth and looks in wonder as he gazes up at her. Would at least an hour of skin-to-skin contact be possible for all healthy mothers and babies in your unit? What can you do to ensure that this can happen?

## **Conclusion**

There are many benefits to mothers and babies of having skin-to-skin contact after birth and no known harmful effects. Despite this, it is still not common practice in all maternity units in the UK. Midwives have an important role to play in educating women of the risks of not spending time in skin-to-skin contact with their baby whether or not they intend to breastfeed and acting as advocates for women within labour ward environments. It is also important that women realise the potential impact that the use of pharmacological pain relief during labour can have on their baby after birth and the effect of this on infant feeding.

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