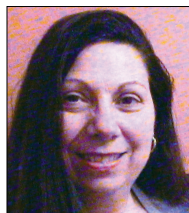


# Maternal breastfeeding positions: *Have we got it right? (1)*



Suzanne Colson reviews the theory supporting routine teaching of breastfeeding positioning and attachment skills, and considers unexpected research results that challenge current practices

Although exclusive breastfeeding is associated with significant health benefits, British mothers are some of the least likely in Europe to sustain breastfeeding (Hamlyn et al 2002). Knowledgeable support may be crucial in overcoming the problems that prompt early, unintended breast weaning (Renfrew et al 2005). Current breastfeeding support approaches suggest a fixed system of routine and early breastfeeding management using verbal instruction to enable mothers to learn correct positioning and attachment skills. The following points have been recently reported as best practice. To breastfeed, mothers should:

- sit in a chair with an upright back, at right angles to their 'almost flat lap'
- use a footstool (if needed) to support their feet
- swaddle the baby (if necessary), ensuring baby's arms are lying at the sides, not across the body
- support the baby on a pillow with nose

and mouth in line with mother's nipple before beginning the feed

- attach the baby correctly, holding the breast, if necessary, but keeping the breast still
- elicit a mouth gape, by moving the baby against the breast and enabling the mouth to touch the nipple
- aim the baby's bottom lip as far away as possible from the base of the nipple to enable baby's tongue to scoop in as much breast as possible (Inch et al 2003a).

The theory for this kind of instruction appears to originate from three primary sources:

1. Research examining the anatomy and physiology of infant sucking (Weber et al 1986, Woolridge, 1986a; 1986b).
2. Research differentiating sore nipple types and expert clinical practice (Gunther 1945, 1973).
3. Experts' practice in English problem-solving hospital/community feeding clinics (Woolridge 1995).

Although traditionally mothers are advised to breastfeed in upright seated postures, there does not appear to be any research evidence supporting this instruction

## Infant sucking and sore nipples

A recent systematic review highlights that poor positioning and breast attachment are associated with low milk supply, nipple trauma, breast engorgement and early weaning (Renfrew et al 2000). These risk factors were first identified through landmark research carried out by Woolridge in the 1980s. Studying the mechanisms of sucking through ultrasonic examination of the buccal cavity during breastfeeding, Woolridge (1986a, 1986b) replicated and further developed earlier cineradiographic studies made of both breast- and bottle-feeding episodes (Ardran et al 1958a, 1958b). Using video recordings of ultrasound scans to examine patterns and coordination between sucking, swallowing and breathing, Woolridge (1986a, 1986b) studied six breastfed and six bottlefed infants between the second and sixth postnatal day. ►

*Below:* This mother, pictured latching her baby as she was taught in hospital, was unable to sustain this posture. The baby was also unable to sustain the latch for longer than one minute, even when the baby's arm was stretched around the mother's midriff (below right).



# Maternal breastfeeding positions: have we got it right? (1)

Mapping the anatomy of infant sucking and examining the aetiology of sore nipples, this research has been cited widely, informing practices concerning the positioning and attachment of the baby at the breast.

Woolridge's (1986a) description of normal infant sucking patterns, culminating in the finding that milk transfer involves an almost frictionless process between neonatal tongue action and maternal nipple, made good physiological sense, since experiencing pain during breastfeeding always appeared incongruent with a biological process. Woolridge (1986a, 1986b) set the gold standard for breastfeeding education. Clinical applications centred on recommendations for teaching midwives to teach mothers optimum attachment and positioning skills to ensure effective milk transfer, breast emptying and painless feeds (Woolridge 1986a).

## Challenging theory

The aim of Woolridge's (Weber et al 1986, Woolridge 1986a) pioneering research was to clarify the organisation and physiology of feeding events that occur inside the baby's mouth during a feed. Generating theories about how an infant becomes attached to the breast, Woolridge (1986a: 169) reiterated that babies are born with two primitive reflexes, the innate rooting and sucking responses enabling them to 'obtain the nutrients essential for survival'. However, mothers appeared to lack any instinctive responses, unable innately to breastfeed. Mothers, concluded Woolridge (1986a), need to learn and develop breastfeeding skills.

This theory can be challenged because it does not appear to take into account how mothers might sit or lie instinctively. Any systematic examination of neonatal positioning and attachment in relation to spontaneous maternal postures appears to have exceeded the scope of the Woolridge research (Weber et al 1986, Woolridge, 1986a; 1986b).

In the earlier cineradiographic studies made of both breast- and bottlefeeding episodes (Ardran et al 1958a, 1958b), maternal research postures are clearly described: the breastfeeding mothers observed were asked to lean over a couch with their bodies twisted so as to allow one

breast to project clear from the chest wall. A nurse then 'adjusted the baby to the mother's nipple and when active sucking was established the radiographic exposure was made' (Ardran et al 1958b: 156). Although care was taken to ensure maternal comfort, these postures – suggested purely as part of a research protocol to enable close observations of breast attachment and the neonatal buccal cavity during feeds – could hardly increase knowledge about spontaneous maternal feeding postures.

## Back straight, chest out!

Traditionally, in any body of literature, mothers are often shown sitting upright unsupported or upright on nursing chairs to breastfeed. Both Mavis Gunther, an obstetrician in the UK, and Karen Pryor, an American marine biologist, fervent and respected breastfeeding authorities in the 1950s to 1970s, suggested that in sitting positions mothers should sit 'bolt upright or lean slightly forward' and 'not lean backwards' (Gunther, 1973: 49; Pryor, 1973: 167). Two such upright seated postures are still widely used and promoted as the only correct way to breastfeed. These are:

- Sitting upright and holding baby in a cradle or cross-cradle position
- Sitting upright and holding baby in the clutch, rugby ball or football position.

Mothers are also advised that they can breastfeed lying down. The lying down position is usually recommended for initiating breastfeeding, especially after a caesarean section or for night feeds. Lying down, even in the artistic literature, is commonly represented in postures where both mother and baby are on their sides facing each other.

## Bad for the back?

I have carried out an extensive literature search and have been unable to find any research data supporting these suggestions. However, there are some interesting postural descriptions from osteopaths. Definitions of good or correct posture emphasise alignment of the body organs that allows them to function properly. Bad or incorrect posture is that which places undue

---

Some breastfeeding experts may traditionally have insisted on upright sitting postures because of etiquette, leaning back perhaps being associated with slouching or an unkempt appearance

---

strain and pressure on any of the organs leading to their abnormal functioning with resultant pain or general bad health. The osteopathic literature is unambiguous: an upright posture where the back is at right angles to the lap is the most uncomfortable of any position, and usually becomes painful; traditionally, it is called 'the typist's position'. The typist's position is well-known among osteopaths whose treatments for predictable effects of tense trapezius and neck muscles and the tendonitis often associated with repetitive stress injury include manipulations and massage (Kapandji 1974).

Learning to breastfeed has been compared with learning how to type (Renfrew et al 2004). The argument goes something like this: when you sit straight, in an upright posture, you are well positioned; therefore, you will look better, feel better, be less tired and more accurate. In fact, these claims are unsubstantiated. It may be that sitting upright is not the most comfortable, most accurate or least tiring position for typing or for breastfeeding.

Postures where mothers are leaning back slightly, semi-reclined or flat lying are largely resting postures, not erect. Promoting relaxation and recovery, they may have a distinct advantage in that head, neck and shoulders can be fully supported. Semi-reclined postures can be just as well-aligned and balanced as erect postures, enabling full lung expansion, preventing sagging of the internal organs and exaggeration of the lumbar curve of the spine. The aim is to be stable, supported and comfortable, avoiding hunching and slumping.

One reason that has been given for sitting upright for breastfeeding is that women's breasts will 'point downwards and outwards' if they are lying back, making it difficult to latch the baby on to the breast (RCM 2002: 44). Renfrew et al (2004) also argue that lying down postures are problematic, suggesting that semi-reclined seated postures could inhibit the milk supply or cause nipple sucking. These statements are unreferenced, suggesting that this is professional opinion; authoritative statements such as these are often illustrated by a series of pictures of mothers sitting starkly upright with both feet flat on the floor and head, neck and shoulders unsupported, illustrating how to attach babies correctly to the breast using the correct seated posture.

After that, there is often a series of mothers in semi-reclined postures that are crossed out, indicating that leaning back or lying flat to breastfeed is wrong or incorrect. Again, this is unsubstantiated. However, these constant visual displays throughout the breastfeeding literature not only reinforce the widespread belief that upright sitting postures are the only correct way to breastfeed when seated, but they also assume that mothers (or, sometimes, midwives) are supposed to attach the baby to the breast.

It may be interesting to explore why some breastfeeding experts have traditionally insisted on upright sitting postures. Speculation suggests that it might have to do with etiquette, leaning back perhaps being associated with slouching or an unkempt appearance. Upright can also mean decent, honest and of good moral conduct. Or,

maybe, bolt upright postures were originally thought to strengthen bone development, preventing malalignment or nerve injury; the theory could have originated at a time when the benefits of vitamin D were unknown and rickets was prevalent. Chair design is constantly changing and evolving; maybe straight-backed chairs were the only ones available in the hospital or clinical setting. Finally, it may have been thought that if breastfeeding mothers leaned back in semi-reclined or semi-flat postures, the milk could not flow upwards and out and down into the baby's mouth. Thinking in terms of bottlefeeding, and considering the effects of gravity, logically this makes sense. Equipped, however, with the understanding of the mechanisms of maternal milk release and how the baby applies 'negative suction pressure' during sucking bursts (Woolridge 1986a: 164), we can start to look beyond any association between maternal postures and the effectiveness of milk transfer.

### Creating a 'problem'

A third primary source that underpins the routine verbal instruction of breastfeeding management cited above appears to originate from the nature of knowledge and clinical expertise gained during feeding clinics. Woolridge (1995: 221) reports that hospital and community clinics offer 'women with seemingly intractable breastfeeding problems' the opportunity to be taught specific positions and attachment skills to overcome them. When there are problems, his response makes good sense – a consistent approach to reorganise is probably exactly

what is needed. However, to regard the initiation of any breastfeeding as problematic is culturally loaded. For example, a breastfeeding promotional video suggests that mothers must acquire coping skills to be able to breastfeed during the first postnatal week (RCM 1996). The word 'cope' comes from middle English via the French 'coper', meaning to meet in battle or give a blow with the fist. Today, coping is still associated with successful confrontation of problems: some coping synonyms are 'managing', 'getting by', 'surviving' and 'muddling through' – hardly words conjuring up images of pleasure and satisfaction.

There is a good argument to be made that it is not the act of breastfeeding that is problematic, but rather fixed attitudes and cultural beliefs that obscure the biological choice (La Leche League 1958).

### Conclusion

In today's consumer world, to promote and support breastfeeding it may be more productive to encourage natural positions and introduce the concept of nurturing and enjoyment – to 'market' breastfeeding, inspired by the positive energy coming from testimonials of mothers who take pleasure in breastfeeding. That is what biological nurturing is about. **TPM**

Suzanne Colson is a research midwife and senior lecturer at Canterbury Christ Church University

**NEXT MONTH:** Biological nurturing – a new approach to breastfeeding.

### REFERENCES

- Ardran G M, Kemp F H and Lind J (1958a). 'A cineradiographic study of bottle feeding'. *Br J of Radio*, 31: 11-22.
- Ardran G M, Kemp F H and Lind J (1958b). 'A cineradiographic study of breast feeding'. *Br J of Radio*, 31: 156-162.
- Gunter M (1945). 'Sore nipples, causes and prevention'. *Lancet* ii: 590-593.
- Gunter M (1973). *Infant Feeding*, revised edition, Harmondsworth: Penguin Books.
- Hamlyn B, Brooker S, Oleinikova K and Wands S (2002). *Infant Feeding*, London: TSO.
- Inch S, Law S and Wallace L (2003a). 'Hands off! The Breastfeeding Best Start Project (1)'. *The Practising Midwife*, 6 (10): 17-19.
- Kapandji I A (1974). *The Physiology of the Joints, Vol.3: the Trunk and the Vertebral Column*, 2nd

- edition, Edinburgh, London, NY: Churchill Livingstone.
- La Leche League (1958). *The Womanly Art of Breastfeeding*, La Leche League International, 9616 Franklin Park, IL 60131, USA.
- Pryor K (1973). *Nursing Your Baby*, New York: Harper and Row.
- Renfrew MJ, Woolridge MW and McGill HR (2000). *Enabling Women to Breastfeed*, London: TSO.
- Renfrew M, Fisher C and Arms S (2004). *Bestfeeding: How to Breastfeed Your Baby*, Berkeley, CA: Celestial Arts.
- Renfrew M, Dyson L, Wallace L, D'Souza L., McCormick F and Spihy H (2005). *The Effectiveness of Public Health Interventions to Promote the Duration of Breastfeeding Systematic review (1st ed)*, London: NICE.

- Royal College of Midwives (1996). *Breastfeeding: Coping With The First Week* (videotape), Mark-It Television, 34 Gadshill Drive, Meade Park, Stoke Gifford, Bristol BS12 6UX.
- Royal College of Midwives (2002). *Successful Breastfeeding*, London: RCM.
- Woolridge MW (1986a). 'The "anatomy" of infant sucking'. *Midwifery*, 2: 164-171.
- Woolridge MW (1986b). 'Aetiology of sore nipples'. *Midwifery*, 2: 172-76.
- Woolridge MW (1995). 'Baby controlled breastfeeding', 217-242, in P Stuart-Macadam and K A Dettwyler (eds), *Breastfeeding Biocultural Perspectives*, NY: Aldine de Gruyter.
- Woolridge MW, Baum JD (1986). 'An ultrasonographic study of the organization of sucking and swallowing by newborn infants'. *Dev Med Child Neurol*, 28:19.