



Sleeping with your baby

**Sleeping with you
is the most natural and beneficial
way for your baby to sleep.**

Sleeping together:

promotes strong and secure bonding

enhances breastfeeding

supports health and immunity

reduces overall crying time

can reduce sleep problems in later life

feels great!

We support mums, dads and babies to sleep together, within safe guidelines.

This document explores the topic of sleeping together – what's in it for you, what's in it for your baby ... and how sleeping together now can have positive impacts for years.

We've divided it into easy-to-navigate sections so you can dip in and out as you please; either by following the internal links from the contents page; or by printing it out and reading it at your leisure.

Enjoy!

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Introduction

At Babiesknow we believe that mothers and babies belong together. We recommend sleeping with your baby. Whether that is in bed with you, or close beside your bed, depends on your needs as a family.

The question that is often asked by new mothers is: “Is it safe for my baby to sleep with me?” The answer is, “Yes!” In fact, it may be more appropriate to ask, ‘Is it safe for my baby *not* to sleep with me?’ Numerous studiesⁱ suggest that sleeping together is, in fact, the safest option (providing you avoid known risks) as well as the most beneficial for your baby.

Your newborn baby is completely dependent, and it’s crucial that he has his needs met. In a nutshell, these are: ‘Love me, hold me, feed me, hear me, see me’. Sleeping securely with an adult helps your baby feel good, and get his needs met. It is an important part of a positive foundation as his brain and body develop.

Why sleep together?

Kittens sleep with their mothers; so do puppies; so do mice ... it’s a mammal thing. Human babies are the most immature of all mammals when they are born. Along our evolutionary journey, with the decrease in pelvis size (once our ancestors stood up and walked on two legs) and the increase in head size (as the brain grew), it became necessary for us to be born earlier and more immature than most mammals. The ideal is for a baby to feel a continuum of womb conditions after birth: to gradually mature while in touch with mum, closely held and cared for. This applies at night as well as during the day, for several months following birth.

Your baby’s brain has been programmed by eons of evolution to avoid separation – she will work hard to keep you near, by being charming and engaging you, and by screaming in protest when separated. Co-sleeping enhances physical, mental and emotional wellbeing. It also helps your baby to develop a sense of safety and trust.

An explosion of scientific evidenceⁱⁱ in the last decade shows how vital it is for a baby’s developing mind and body to be in close contact with his or her mum, or another loving adult. It backs up the view that separating babies and mothers is unnatural. Although separating babies from their mothers is a relatively recent occurrence in the ‘Western’ World, the scientific research

now available provides a welcome counter-argument. It may help to stem the trend of sleeping apart that's been prevalent since the 1970s.

Neuroscience also reveals that early life experiences influence patterning of pathways in the brain. Key emotions of wellbeing, separation, security and distress are vital as your baby's brain develops and lays down foundations that will influence behaviour and relationships through life.

The advantages for your baby

The advantages of sleeping with your baby are many, as you share much more than a mattress with her. Your presence lends a feeling of safety, and this is essential for life and for sleep.

In practical terms, you will more easily meet your baby's needs - when newly born her stomach is tiny, smaller than a ping-pong ball, so she can only take small amounts of food at a time. While she is with you in bed, she'll find it easy to waken you, to find your nipple, and to have the milk and comfort she needs.

When you are together, preferably skin to skin, you and your baby become closely attuned to each other. Being with you automatically helps to regulate her body and brain systems, including her heart rate, breathing, body temperature, sleep patterns and digestion. You will also help her emotional development as being in touch allows her emotional needs to be met and this, in turn, supports optimal brain development.

The advantages for you

You too will benefit from sleeping with your baby. While you are close through the night your brains automatically 'resonate' – and this increases your experience of calming theta and delta brainwaves, aiding relaxation and sleep that can be rejuvenating even if you are aroused several times through the night.

While you are together hormones including oxytocin, prolactin, opioids and endorphins flow through your body at an increased level. These have been called the 'love hormones'ⁱⁱⁱ. As the name suggests, they make you feel good, and the happiness and even bliss assisted by these hormones is frequently experienced by dads as well as mums. High levels of these hormones increase relaxation and support replenishing sleep, and for women they enhance milk supply and help to reduce susceptibility to post natal depression. The flow of these hormones, for you

and for your baby, increases even further when you are together skin to skin – we look at the benefits of skin-to-skin contact on page 13.

What others say – pressure to sleep apart?

In western societies the needs of the child in the first years have been progressively underestimated. The concept of putting the child before the parent is often criticised, even within the medical profession. You, like many parents, may have felt under some pressure to put your baby to sleep separately. The suggested benefits of doing this are no longer supported by scientific evidence, yet the assumption that a ‘good’ baby is one who sleeps through the night without mum and dad have persisted. We explore this further on pages 10-11.

Safety issues

Perhaps the loudest external protest against bed-sharing involves safety. Despite a vociferous anti-co-sleeping lobby, huge bodies of evidence point to the fact that, when known risk factors are avoided (see pages 24-28), sleeping in bed with mum and/or dad is safe for a baby – as nature intended.

Throughout this paper bed-sharing is advocated only in the context of safety. We also include references to significant studies so that you can pursue the topic further if you wish to. Appendix A (pp.24-28) is a practical guide to help you avoid risks and enjoy bed-sharing in a safe context.

Mum and Dad need sleep too!

Of course caring for a young baby is tiring, but with planning it need not be exhausting.

You may be surprised to hear that if you sleep with your baby you are likely to have more restful sleep than if you have to get up and go to another room to feed her. And, that it’s possible to be sufficiently rested even if you don’t get a good 8 hours of sleep a night. Adults, like babies, surface regularly from deep sleep into light or REM (dream) sleep each night. When you sleep with your baby, your sleep cycles shorten to match your baby’s: this is nature’s way of ensuring that you’re able to easily meet your baby’s need for food and reassurance. If you’re breastfeeding, your hormones incline you to sleep lightly, and help you to rest well when you’re in light sleep, or sitting or lying quietly. So although you’ll have less deep sleep, you can still be

rejuvenated. And you may discover a new skill - many men and women first learn to 'cat nap' or recuperate while breathing deeply and 'awake' energised after 10-20 minutes.

The Early Days

We urge you to prioritise your baby's needs, and your needs in your new role as a parent: let go of as many chores or outside distractions as possible in these early days, and enjoy cuddling up, preferably skin to skin. You can do this day and night. Time spent with your baby now will far outweigh the short-term gain of lots of deep sleep in the early days, or of achieving the numerous tasks associated with being a 'super mum' – sometimes spoken of as 'getting back to normal'.

Your baby's experiences and safety in the first weeks and months are a priority. Being close together also helps your body and mind to adjust in your transition to parenting, and enhances bonding. What's more, if your baby has restful sleep and feels secure now this will positively inform her sleep patterns in later life (for more, see page 17).

Your family

You will have your own ideas and preferences about sleep. We encourage you to look closely at your beliefs and at current research about what your baby needs, and consider the ways you can meet these needs in the context of your unique family. The rest of this document looks in more detail at the benefits of sleeping together and suggests simple steps towards making it work for you.

Bonding, secure attachment and sleeping together

Bonding is a continuum that begins in the womb, from conception. To develop and maintain a secure bond, your baby needs to trust you and to feel safe enough to connect deeply with you. She needs to spend time with you during the day, as well as during the night and in the early years it is best to keep separation to a minimum.

Sleeping with your baby supports easy and constant communication, while you and your baby bond, leading to secure attachment: this is a prerequisite for healthy infant development. Your baby will attach most strongly to whomever she spends the most time with. The hours spent together during the day and at night offer a wonderful opportunity for close connection when she can feel warm, held, safe, heard and seen, and loved and wanted. Sleeping together offers a great opportunity for fathers to bond with their babies.

Securely bonded babies tend to become confidently independent, and are likely to experience happiness and low anxiety, with positive self-esteem^{iv}.

Can sleeping with mum and dad stifle a baby's independence?

For many people over the past 50 years, it has been erroneously thought that the more babies were on their own, the more quickly they would become independent; and sleeping alone, both for naps during the day, and at night, has become part of this practice. But the opposite is true – independence is not nurtured by separation. Independence arises from satisfying dependence and from secure bonding.

A baby whose needs are met and who is allowed to be appropriately dependent in the first 3 years in particular, will develop autonomy at her own pace and grow up to feel secure in the world. Independence emerges naturally from a foundation of safety; not from a baby's needs being frustrated and discouraged. The emotional pressure of intense early separation stunts the natural ability for honesty and direct communication that children are born with.

In the General Theory of Love^v, we read: 'A parent who rejects a child's desire to depend raises a fragile person ... Independence emerges naturally not from frustrating and discouraging dependence, but from satiating dependence.'

In many societies across the world, however, newborns are viewed as independently spirited but with a need for love and contact that allows independence to flourish. In Bali for example, if a baby is put down by its parents in the first year of life, that is considered 'bad' parenting^{vi}. In some Western cultures the view is that babies are born dependent and to create independence we need to push them away as much as we can.

Dr. Peter Fleming^{vii}, Paediatrician in Bristol and a leading authority on sleep and death in infancy for the WHO (World Health Organisation), said in a recent radio interview; "I've spent some of my time working in Africa and some of the African families have said to me that they viewed the British as child haters because the idea of putting a baby in its own bedroom or separate from the family at an early age to an African mind is tantamount to child abuse. And actually there's a huge amount of sense in keeping the baby in close contact and in close environment of its primary carer. We've recently showed that that had a protective effect, not just at night time but even more strongly in the day time."

Sleep training : the impact of crying yourself to sleep

Many parents have been attracted to, or encouraged to, 'sleep train' their babies from an early age. It appears to work because babies do eventually learn to sleep. You may also have heard the myth that frequent crying is good for developing the lungs – it's not true! Being left to cry before sleep may be at a cost to a baby's future well being.

In the early months and years your baby is not capable of calming herself down. For her to feel safe, and for her nervous system to calm, she needs the support of a caring adult. If a baby is left to cry for a prolonged period until falling asleep from exhaustion, or after giving up the cry for company, unusually high levels of stress hormones flow through his system. These keep the body and nervous system on high alert and have a detrimental impact on heart rate, breathing, immune function and rate of growth^{viii}. Unsurprisingly, a stressed baby does not have restful and replenishing sleep; and a baby in this state does not feel safe to let go and trust.

If stressful experiences around sleep are prolonged or repeated over months this contributes to the formations of neural (nerve) networks in the brain that can incline that baby towards distress, anxiety and over-sensitivity. She may have persistent problems either getting to sleep or enjoying long periods of restful sleep. Pathways laid in the brain in the first three years can have an influence for the rest of life.

Not only do babies become stressed if left unattended while they are upset, they learn that they cannot get their needs met, no matter how hard they try. A term for this is ‘protest-despair’^{ix}: after a lengthy period of protest, the baby gives up. This can fuel a behavioural pattern, for instance of not speaking up, or difficulty trusting, that may affect a child for years, possibly into adulthood. This is a recipe for anxiety, depression and underlying low self-esteem, later in life.

In extreme cases, being left to cry unattended for long periods may cause a baby to ‘dissociate’ from her feelings. When there is dissociation at an early age, the development and sensitivity of the limbic (or ‘emotional’) brain may be adversely affected and increase the likelihood of persistent anxiety and depression later in life. Moreover, natural connections between the limbic brain and the maturing prefrontal cortex in the brain (the part that allows conscious awareness and thought) may not form optimally; this may contribute to a difficulty understanding and acting on one’s feelings^x.

Our world is populated with many adults who are dissociated and out of touch with their feelings: adults who would score low in ‘emotional intelligence’, a measure of intelligence now believed to be the most important influence on happiness and health. The early apparent gain of parents getting more deep sleep in the early years may come at a great cost in the long term.

The effects of separation and distress outlined here depend on the length of time for which a baby is distressed, and how a baby is soothed and reassured. The impact also depends on each unique baby’s personality, and on the security of the bond with mum or care givers. It’s natural to experience distress from time to time: it’s part of being human and we all need to develop strategies for coping: both by reaching out for support, and by developing self-soothing abilities. Frequently repeated or ongoing distress, though, is likely to have the most detrimental effect.

Hormones and brain activity linked with separation distress

Recent scientific advances have enabled the identification of a specific emotional drive connected with isolation: separation distress^{xi}. This emotion is fundamental – it drives a baby to keep a caring adult close; it drives us to be social and mutually supportive to one another, and helps to keep us from the dangers associated with isolation. This emotion kicks in when babies are left alone, day or night, and need something: without an adult to meet their needs, babies (who are utterly dependent) become distressed. The body and brain move into a ‘stressed’

state; crying is one sign of this. If a period of separation is prolonged, the baby's levels of stress hormones increase; they may increase up to tenfold.

Making Your Choice: some views in today's society

The modern gold standard for being a good mother seems to be whether or not your baby sleeps through the night. Unfortunately, the concept of a 'good baby' is also linked with a baby sleeping through the night. Where does this come from?

In the last century with increased affluence providing larger homes it became possible for babies to sleep alone. In the 1950s and 1960s, birth became hospitalised, and babies were taken from their mother and put in a nursery so that the mother could "rest and recover from the birth". Mothers were also given sleeping pills and tranquillizers. It then became the norm for those mothers who had sufficient space in their homes to house their babies separately. Later, particularly in the 1970s, bottle feeding became fashionable resulting in further separation between mother and baby. Protecting the husband-wife relationship may have been a high motivational factors for placing the baby in a separate room. Gradually the choice of where babies slept was taken out of the mother's hands: the maternal instinct became undervalued as sleeping choices were influenced by medical doctors, most of whom were men.

Where babies 'should' sleep became a social and moral issue rather than a mother's instinctive choice. Studies on infant sleep were conducted with bottle-fed infants who slept alone; no cross-cultural, ethnological or longitudinal studies were undertaken.

In his comprehensive assessment of sleeping practices and attitudes towards safety and cultural trends, James J. McKenna^{xii} writes, "Conceptions of what was in the best interest of infants medically found their way into moral characterisations of both the infants and practices of parents who cared for them. That is, if it is 'good' for babies to sleep alone, it seemed a small step to concluding that 'good babies' did so. The good baby descriptor is now practically synonymous with the baby's ability to sleep through the night alone."

The damage done by this style of thinking has been catastrophic and, as science now suggests, has in all likelihood contributed to the high increase in dissociation disorders, anxiety disorders, insomnia, depression and panic attacks^{xiii} among adults in the Western World^{xiii}.

Dealing with criticism and outside pressures

If you choose to parent from your heart and follow your basic instinct to stay close to your baby, you may meet resistance - maybe at parent groups, from health visitors, or from your parents or siblings, or your friends – and you may hear conflicting advice in the media and other books.

It is true that being there for your baby in the early years takes commitment, time and energy; this may fuel questioning or criticism. In the long term, though, putting in the time and effort now will pay off, both for your baby and for your relationship together. There has been an exponential advance in understanding with revelations from medical science, neurology and psychology, and with this information your choices may make sense to the people who challenge you.

At Babiesknow we encourage you to parent from your heart, doing what feels right for you, your baby, and your family. We'll give you guidance in voicing your preferences effectively and standing by your choices. We also offer follow on programmes (e.g. Babiesgrow) and an on-line community. Networking with other parents who are like-minded is typically really helpful.

Brain Development and the Benefits of Staying Close

In the human brain the limbic area is the emotional sensor: it's often referred to as 'the emotional brain'. Without this part of the brain, we would not survive. The limbic brain fuels feelings that help us adapt to life, and thrive. For instance, fear drives us to call for help or take actions to make us safe; anger drives us to state our views and stand up for ourselves; the urge to bond inclines us to stay close to our caregivers, on whom we depend as babies, and, later in life, to make friends and seek out a mate.

In infancy, the limbic brain is in the 'driving seat'. The 'thinking' part of the brain is not mature. Your baby's behaviour is based on her fundamental survival needs (for food, warmth and contact) and on her emotions, which include fear, anger, separation distress, playfulness and the urge to bond, and to explore. What matters most to your baby's developing sense of self and to his developing brain and body is how he feels in relationship and whether he has his needs met ('love me, hold me, feed me, hear me, see me').

Early experiences affect the way the limbic brain develops, and the early months are a crucial time: a window of opportunity for you as a parent to support your baby's optimal development. Feeling safe, secure and connected to you supports this, and, from this foundation, future brain

development. Neuroscientists across the globe are now focusing on the limbic brain as they seek to understand human nature, relationships and health and are in agreement as to its importance: it is difficult to underestimate the value of nurturing babies emotionally (and perilous to do so!).

Limbic Resonance – tuning into one another – through the night

When you and your baby are close, your limbic brains pick up the messages that your bodies send, through eye contact, touch, smell and sound, and the rhythm of breath and heartbeat; and you fall into synch. This is 'limbic resonance', described in *A General Theory of Love*^{xiv} as:

“a symphony of mutual exchange and internal adaptation whereby two mammals become attuned to each other’s states.”

Your limbic brains naturally influence one another when you are close; particularly when you have eye contact and skin-to-skin contact. Your baby’s brain changes as she responds to you and yours also changes as you respond to her. This completely unconscious process informs your baby’s emotional feelings; and influences your relationship together.

Through limbic resonance with you, your baby learns to make sense of her inner world – her feelings and emotional drives – and relationships. Your baby is born with the nerves and the hardware in the brain for limbic sensing, but needs a reliable guide as her emotional senses develop. Thomas Lewis and his colleagues point out that, ‘Because our minds seek one another through limbic resonance, because our physiologic rhythms answer to the call of limbic regulation, because we change one another’s brains through limbic revision – what we do inside relationships matters more than any other aspect of human life.’ And it is the earliest relationship a baby has that matters most. ‘A steady limbic connection with a resonant parent lays down emotional expertise.’ This is another way of saying that the early years are a golden opportunity for the foundation of emotional intelligence.

The ideal relationship for a baby, where he can feel safe and be guided as he learns to understand his inner world and trust his emotions, is with a well attuned parent. By well-attuned, we mean someone who is aware of their own feelings and able to act appropriately. Being in contact with your baby during the day and sleeping together provides the opportunity for ‘limbic resonance’ for many hours. When this is positive this contributes to your baby’s healthy

development. Your loving presence as a father or mother offers wonderful nourishment for your baby's mind, body and soul, and will nourish the bond between you.

If you are feeling highly anxious, stressed or depressed, through limbic resonance your baby will pick this up. He may reflect it back to you; he may react with challenging behaviour. This insight into what happens 'beneath the surface' in baby-parent relationships presents an opportunity: for a parent to understand his or her influence on baby's state, and to take steps to seek support to address and reduce stress and depression when it occurs^{xv}. A baby's brain is both susceptible and extremely pliable and adaptive: it responds to love, honesty and emotional integrity, and this always has a positive impact.

Being in touch

We have already mentioned that the first months after birth are a time for your baby to continue her development in a safe, warm and secure environment, where her needs for food, warmth and comfort can be met. Being in touch with mum, dad or another loving adult, skin to skin, is an important part of this: the contact between you provides the best possible environment for her optimal growth. And night time is an obvious time to enjoy this.

The Mother-baby dyad

Being in touch, and being secure, usually becomes possible with mum, in the 'mother-baby dyad'. A dyad is a unique relationship between two people that is one of union, where the golden rule is: keep together. Being in touch, skin to skin, sleeping together, and breastfeeding, create opportunities for the mother baby dyad to be in full flow.

Skin to skin

You'll no doubt receive plenty of baby-gros and sleep suits from friends and relatives. But did you know about the benefits of being skin to skin with your baby?

Skin to skin contact is natural and pleasurable. And it is good for you and your baby. You can stay in touch during wake time and by using a sling (many allow skin to skin contact), so it is easy to have your baby with you while you live your day; move around, talk and prepare food, or play with an older child. While being held close to you, your baby will wake and sleep according to his personal rhythm, and will have easy access to your breast. Many mothers tell us how

enjoyable and satisfying, as well as stress-free, it is to have their baby so close. At night, skin-to-skin contact can continue. Your baby can sleep with you with just a nappy on (for tips about safe covers etc., turn to pages 24-28).

The thermal synchrony that naturally exists between mother and baby is quite magical. If your baby is too hot, your body temperature will automatically lower by up to one degree centigrade to cool her; if she is too cold your body temperature can rise by up to two degrees centigrade. In the first few months after birth, your baby is unable to regulate her own temperature; so it's ideal for her to have you do this for her!

Being together, skin to skin, is the natural environment for your baby. It enhances bonding and secure attachment, boosts the flow of love hormones in both of you, and reduces stress hormones, helping everyone to feel good. It supports good health for babies and assists growth. For your baby, contact with you helps to regulate his heart rate, breathing, digestion, arousal patterns, hormone flow, and supports the immune system. Being in touch also helps a mother's breast milk to flow and adapt its content and volume to suit the baby's needs. Safe and loving physical contact helps to regulate the stress response system in your baby's brain and supports it to develop in a way that will predispose him to be calm and confident through life.

Margot Sunderland^{xvi}, Director of the Centre for Child Mental Health in London, says: "Babies sleeping skin to skin with their parents appear to be less likely to have a serious illness in the first six months after birth". Dr Nils Bergman^{xvii} who specialises in caring for preterm babies, is so convinced about the benefits of skin to skin contact that he introduced Kangaroo Mother Care (KMC) for all babies. In KMC the baby is carried skin to skin day and night prolonging the time that the baby feels close, safe and held. This is important for all babies but premature or low weight babies are especially needy of the contact, and it can greatly enhance the rate of catch-up growth as it boosts the production of growth hormones.

A mother's natural responses and sensitivity

If you are in bed with your baby, provided you are not sedated by alcohol, tobacco or any drugs (recreational or prescription), and you are not totally exhausted, you will be naturally responsive to your baby. If you are breastfeeding, your body and brain will also be affected by a range of hormones that help you to sleep restfully but lightly, so you are attuned to your baby.

You will be aware when your baby wants to feed; you will be aware of where your baby is and you'll move to accommodate her, even while you're asleep; you will be aware if she becomes hot or cold; and you will quickly wake if she cries.

Dr James Mc Kenna^{xviii} reports that even in the deepest stages of sleep, mothers arouse more frequently when they share a bed with their babies. Usually the baby arouses first and the mother is responsive, allowing her to quickly meet her baby's needs^{xix}.

Feeding your baby

Your baby needs to be fed regularly and frequently. Whether you are breastfeeding or bottle-feeding, feeding time is about more than milk; it is an opportunity for your baby to feel nourished on many levels: loved, held, warm and safe, with a chance for intimate skin-to-skin contact.

Breastfeeding

Breastfeeding is enhanced by co-sleeping. The intimacy experienced by your baby when being breast-fed in the safety of your arms provides her with an extension of the intimacy and protection she experienced in your womb. This is the mother-baby dyad in action.

Breastfeeding adds to the benefits of sharing a bed. Your baby is capable of calming stress responses in your brain as well as her own as she suckles. When you enjoy breastfeeding, levels of your 'love hormones' (including oxytocin, endorphins and prolactin) rise, leading to you feeling loved, relaxed, loving and connected. By feeling calm and relaxed you will sooth your baby and she will feel loved. Breastfeeding at night becomes an intimate dance of love and relaxation. And as the 'love hormones' flow they also relieve any pain you or your baby may be feeling (e.g. postnatal pain; teething).

Night breastfeeding

Night-time feeds are easy while co-sleeping, your baby can latch on easily; she may remain completely relaxed, without needing to cry to get your attention, and you may barely be disturbed. Co-sleeping babies feed more frequently at night and the average interval between breast feeds is typically shorter than it is when mum and baby sleep apart. This has benefits for a young baby, who in deep sleep has a greater risk of stopping breathing – thus being in light sleep is protective. Studies^{xx} have also shown that mums who co-sleep tend to fall back to sleep

after feeding more quickly than mums who get up to feed their baby in another place. Being close to your baby also helps to match your milk flow to meet your baby's demand, supporting successful breastfeeding.

As Dr Mc Kenna says^{xxi}:

'The biology underlying breast feeding behaviour acts as a 'hidden regulator' increasing night-time mother–infant proximity whether sleeping in the same bed or within arms reach on a different surface.

'Mother–infant co-sleeping represents the most biologically appropriate sleeping arrangement for humans and is both ancient and ubiquitous simply because breast feeding is not as easily managed, without it. The increased sensory contact and proximity between the mother and infant induces potentially beneficial behavioural and physiological changes in the infants. Mothers report less infant crying, more maternal and infant sleep and increased milk supply due to the increased frequency of night-time breast feeding that close contact facilitates.

'Nothing that a human infant can or cannot do makes sense except in the light of the mother's body. Human infant milk composition, characterized by its low protein and fat content and high lactose, necessitates short intervals between breast feeds making human mother–infant co-sleeping not only expectable but biologically necessary.

Moreover, mammal infants whose mothers leave them to sleep alone in nests neither cry nor defecate until she returns (to lick them) so as not to attract predators. Human infants cry and defecate spontaneously when their mothers leave indicating that the constant physical association between them is evolutionarily stable and appropriate.'

Bottle feeding

If you are bottle feeding your baby, the same principles apply. Your baby will benefit from co sleeping and having lengthy periods of skin to skin contact, touch and holding. As bottle feeding does not naturally offer the same degree of connection, you may need to pay extra attention to ensure you focus on your baby. Being in touch, and having eye contact, help your bodies to produce the same bonding hormones that are naturally stimulated through breastfeeding.

‘Sleep Problems’ and Adult Sleep

Emotions and the limbic system of the brain have evolved to support our survival; they prompt us to act to increase safety when there is a potential threat. For a baby, separation from the caregiver is a threat. The natural response is to cry and protest. Crying for comfort and company at night, because mum and dad are not close, may account for around 45% of otherwise healthy infants and children in western societies who have ‘sleep problems’. When parents elect to have their infants and children sleeping by their sides sleep disturbances are greatly reduced.

When compared to those who slept separately, babies who have co-slept with their parents suffer less from insomnia both as children and as adults^{xxii}. The 2000 National Sleep Foundation Survey in USA reports that 62% of adults have difficulty falling asleep and staying asleep. It is likely that the majority of these adults were put to sleep in a separate room to self soothe when they were babies.

According to Dr Mc Kenna, “The solitary infant and childhood sleep training model aimed at creating ‘healthy sleep habits’, advocated for over 60 years appears not only to have failed miserably, but may have produced the opposite effects than were promised!”^{xxiii}

The impact of early experience on adult sleep

As humans, what we experience as babies and children affects the way our bodies develop, and this includes the nervous system. Repeated experiences of feeling safe and soothed, or of feeling afraid and upset, are remembered by the body. One way this happens is through the formation of neural pathways in the brain. These allow to adapt and to learn: we become ‘primed’ to respond to our environment, our feelings, and to others. This process allows us to learn to avoid a hot fire; to protect ourselves when there is conflict; or to join in when something fun is happening. Early experience around sleep – does it feel good, does it feel safe, etc – can be repeated later in life.

At Babiesknow we encourage you to enquire into your own childhood experience, as it is likely to impact deeply on how you respond as a parent. This may be a new idea for you, which is why, on a babiesknow weekend, we explore this concept at length.

Your early life experiences inform how you parent & your choices around sleep

You may not consciously remember events as a baby but the experiences you had influenced the formation of your brain, and inform your behaviour and your feelings now.

Becoming aware of your feelings and your behaviour is a powerful way to notice when your responses and actions are influenced by what's happened in your past, and when they reflect what's happening now, in your new relationship with your baby. This simple but powerful observation may help you to make choices that suit you, your baby, and your family today; and you may choose not to repeat patterns that are part of your family of origin.

If you had a well-attuned mum to whom you felt securely attached, sleeping with your baby is likely to be a joy. If you felt unsafe in some way, being close with your baby now may bring up some difficult feelings for you. It is by no means 'black and white' but as parents, we tend to either repeat what we experienced as babies, or do the opposite. Being cuddled up with your baby may feel uncomfortable, or you may never wish to put your baby down for an instant.

When you are with your baby, your sub-conscious 'body held' memories are likely to surface. This is because the presence and smell of your baby act like triggers, awakening networks in your brain that have not been stimulated since you were a baby. This is likely to colour the feelings you have towards your baby now (and towards your partner too).

It may be very useful to speak to your parents and ask them to help you to make sense of your preferences about your baby's sleeping. Be prepared for your parents to be defensive, especially if they left you to cry. You may explain that you just want to know without judgement or blame, as it will support you on your own journey as a parent. The understandings of medical science and psychology have progressed since you were an infant and your parents may not be aware of this. They may feel threatened and be fearful of you choosing to parent differently. Remember every parent does their best with the knowledge they have at the time.

If you are not comfortable sleeping with your baby

If you do not feel comfortable sleeping with your baby in bed with you, we encourage you to do two things.

One is to have your baby sleep in the same room and not in a separate nursery.

The other is to explore why it is not comfortable for you; what you feel about it. Uncomfortable feelings may have two origins: firstly, feeling uneasy about acting out of line with your family or cultural beliefs about what's 'right' or 'good'; and secondly, feelings linked with your own experiences as a baby. Often the rational mind kicks in with 'reasons' and beliefs about why it is 'better' to sleep separately. This creates further inner conflict, between your natural, genetically driven urge to be in touch with your baby, and the hindrances of your thoughts, stemming from your family or society.

Sleeping with your dependent baby might reconnect you to feelings of vulnerability, dependence, and perhaps intense love or even pain, feelings that may not have been acknowledged by your parents in your early years. Any discomfort you felt then may surface again now and make it hard for you to be close to your baby, particularly through the night. If you feel afraid or anxious, this also affects your brain, reducing your clarity of thought, limiting the flow of 'feel good' hormones and inhibiting your ability to relax. This can be challenging. It is also a precious opportunity, a gift from your baby, for you to experience the sensation of being close, of bonding with love and trust, of nurturing and of feeling loved. One of the greatest opportunities of becoming a parent is to discover the joy of being fully alive in all your feelings. You will also be giving your baby many gifts, including love, nurturing and safety, especially when you embrace, love and stay with her when she feels upset or is overwhelmed.

If you are finding it difficult to deal with your feelings, or you are unsure how to behave amid pressures from your family or peer group, please remember to call on your community networks. This is an excellent time to find support from a family member, a friend or a professional, a local group, or perhaps an internet chat-room. Be kind and compassionate with yourself, and allow yourself to be inventive, finding the emotional and practical support you need so that you can lessen your anxiety, and be close to your baby and enjoy these early days.

Especially for Dad

We hear of many dads who love sharing the family bed with their partner and baby, and maybe with their other child or children too. Usually in these situations the practical set-up allows plenty of space. A very large bed, or mattress(es) on the floor, makes this possible, so that each adult can sleep soundly, and mum and dad can still enjoy some intimacy without disturbing the children.

We also hear of dads who find bed sharing difficult because they don't get enough sleep, and dads who feel left out, or even pushed out (maybe on to the sofa or a spare room). And in some partnerships mum wants to share the bed with the baby, but dad won't allow it.

If one parent is not comfortable, it's preferable for the couple to talk, with honesty, avoiding blame or finger-pointing. The 'active listening' exercise practised on the Babiesknow weekend workshop can help with this. If you decide to sleep with your baby, it's worth considering potential difficulties, and what you could do to make things work for you. The male energy in your family is very important, and so is the baby-daddy bond. Sleeping together enhances both.

Dad needs his sleep

It's true that Dad needs his sleep. You all need sleep. You may be surprised to find that sleeping with your baby can be easy and that dads are often not overly disturbed. It helps to be creative in how you approach sleeping as a family: a large bed or a mattress on the floor is essential so that you all have enough space. If you have a spare room, spending the occasional night apart can help you catch up on sleep, but be aware that lots of time in separate beds reduces intimacy and can add feelings of distance to your partnership.

If Dad feels jealous

In the early days the natural place for your baby is with a loving parent. Usually, the most constant parent is mum – especially if breastfeeding. As a dad, you can be supportive by enabling mum and baby to be together, doing what you can to provide your baby with a loving and nurturing environment. We have spoken about the mother-baby dyad (page 13) and how valuable it is to minimise separation, and your input can really allow this to happen. Remember, the intensity of the mum-baby union will not last for ever, and there will be increasing opportunities for you and your baby to be close and for you and your partner to reclaim space for intimacy and sex.

If watching your partner and baby fall in love and spend endless hours together is challenging, you are not alone: lots of men feel this. There may be feelings of jealousy – being left out of this amazing relationship – as well as loss – as your woman is given over completely to another. You might also feel frustrated by the extra time you put in to domestic duties, if this is what happens in your family. These are normal and understandable reactions.

Some men adapt and enjoy the changing dynamics in their family. Others find it really difficult and get upset or perhaps rebel. Envy, or fear that intimacy may be lost forever, may drive a man to ask for the adult bed back.

Conflicts of interest?

If, for whatever reason, you are not happy about sharing your bed with your baby, the best place to start is to talk about it. It helps to be honest and open about your feelings, and also to discuss what your baby needs. You could also explore family and cultural beliefs that might be affecting your attitude. You and your partner can also talk about making time for intimacy between you as adults, and also for you and your baby to be with one another. There are degrees of separation – changing places in the big bed, adding a single bed or extra cot to the side of the adult bed, and having your baby in your room but not in your bed.

Finally, while the emphasis is on your baby and offering him love, safety and comfort, we do appreciate that in the early days (and quite naturally too) a new mum may be like a fierce and protective cat with her kittens. If you find it difficult to communicate with your partner, or you do not feel heard, it's time to seek some support or have a chat - your mates, her mates, your families and professionals may all have something to offer.

Sex, intimacy & Making Love with Your Baby in Your Bed

Setting aside time for intimacy and nurturing your relationship is very important: many marriages founder during the early years of parenting. It is common for mum and/or dad's fears about the impact of sex on their baby to interfere. Yet it is OK for your baby. Gentle and loving sexual intimacy between you two parents is unlikely to have any negative impact for your baby. On the contrary, when there is love and tenderness, the environment is a positive one. Touch, kissing, stroking and sex are all connected with the release of endorphin (or 'feel-good') hormones, so are likely to make you both feel loving. Full sexual intercourse is better left for when your baby sleeps, so that your attention can be focused on your sexual intimacy and your partner.

Current research into how babies experience their environment in pregnancy, suggests that loving, passionate sex is experienced as movements, accompanied by a flood of feel-good hormones; although full-on orgasm may be alarming. It is similar after birth. Cultural and family attitudes, however, do vary enormously. What's important, specifically for the woman, is that sex

is pleasurable and wanted. If sex at any time involves unwanted force, manipulation or aggression, this is not a healthy environment for your baby.

A rod for your back?

You may be told that if you take your baby into your bed, you are 'making a rod for your back' and that you will have difficulty 'getting your child out of your bed'. Instead of a rod you are likely to enhance your relationship with your children and witness them growing at their own pace into secure, co-operative and self determined children. You will have played an important role in their development, by providing protection and love, and meeting their need for dependence and their growing independence. Having your baby (or child) in bed with you may go against your family's or peer's beliefs, but you will discover the benefits to be true – and neuroscience now assert the value of security and contact in infancy.

When to move bedrooms

The length of time a baby shares the parents bed varies from baby to baby and family to family. It may go on for weeks, months or years, or be intermittent with separate beds but morning cuddles. What happens for you will reflect your baby's temperament and what you as a couple need in terms of space, intimacy and comfort. If having your baby in your bed is creating disharmony between you then it's time to work towards a creative solution. Looking after the health of the whole family is of vital importance.

One of your roles as a parent is to create and hold clear boundaries to support your baby to feel safe, especially in times of transition. As your baby grows the boundaries will alter, depending on all of your needs. A boundary may be that you start the night in separate beds, then come together for a feed and stay together; it may be that you sleep separately throughout the night; it may be that you stay together until your baby shows you she's keen to be more independent. As you make a separation, be creative and gradual. We look at boundaries and at managing room changes closely on Babiesgrow workshops.

To be clear about your boundaries it is often helpful to talk them through with your partner, or with a friend if you are not in a partnership. Then you'll be ready to talk to your baby, who knows your feelings even if she doesn't understand the words. Try tuning into the feelings in your body. Does your body feel comfortable as you speak? Are your words in line with your feelings? What you say is only 8% of communication. Your feelings alter your tone of voice and body language. This will have a greater significance than your words because your baby is able to detect

feelings. If what you are feeling in your body does not match what you are saying, the boundary probably isn't suitable right now, and the message will not be clear for your baby.

There will be times your child is feeling insecure, perhaps when she is unwell, dreaming vividly, or just needs you for a reason you're not sure of. At these times being welcomed to return to the family bed can be a wonderful resource. Your child can reconnect to the warmth and security of being close and safely held, and then return to her natural independent state when she feels ready. The upset quickly becomes history.

Conclusion – it's a no brainer!

Babiesknow holds the view that mothers and babies belong together, and this includes night-time; and that sharing a family bed is great for dads too. We hope you'll enjoy the extra special contact with your baby, and find creative ways to make it a reality for your family. We're here to support and guide you, and help you all sleep well

Appendix A: Our Guide to Sleeping Safely With Your Baby

Views about safety in sleep have evolved over the past 50 years. Advice on safe sleeping appears to have influenced a reduction in the number of Sudden Unexpected Infant Deaths (SUDI) or Sudden Infant Deaths (SIDS). This is hugely positive.

We've compiled this 'at a glance' safety advice section for your guidance. It is followed by an overview of recent research into SIDS, which gives some background into the reasons for the safety advice. If you would like to know more, please follow the references supplied.

The advice applies to babies who have been born around their due date and are of a normal weight. Low birth weight babies have different needs.

Avoid ...

- **Smoke** - keep yourself and your environment free of cigarette smoke, it is not safe for either parent to smoke and co-sleep.
- **Alcohol** – do not sleep with your baby if you've been drinking: it reduces your sensitivity.
- **Drugs** (prescription or recreational) – may reduce your sensitivity.
- **Sofa sleeping** –increases the risk of a baby being smothered or trapped.
- **Waterbeds** – not safe for a baby, as it increases the risk of smothering

Plus: If you're **exhausted** do not sleep with your baby.

We advise you to ...

... create a spacious and safe space to sleep while guarding against the risks of your baby becoming trapped or falling.

- **'back to sleep'** - put your baby to sleep on his or her back
- **Use a firm mattress** – that fits snugly
- **Use light bedding** (either a double duvet where the outer duvet is over your body and torso but there is room for your baby to breathe, or sheets and light blankets)
- **Avoid covering your baby's head**
- **Use small pillows**
- **Sleep skin-to-skin** with a nappy on your baby
- **Keep the room temperature comfortable** for a lightly clothed adult. Your baby should not feel hot or moist to the touch.
- **Seek medical attention** if your baby is unwell.

We encourage you to positively create

- A serene loving place for you all to sleep
- Somewhere where you enjoy hanging out, reading, relaxing, resting, feeding, most babies do not need a silent, dark place to fall asleep in.
- As your baby grows you can adapt the bedroom to accommodate your needs, adding a single bed mattress to your double if space has become cramped.
- Intimacy between you as parents, acknowledging your baby's presence

If You Put your Baby to Sleep in a Cot

Whether your baby sleeps in a cot every night, or just from time to time (e.g. when you feel exhausted, or during the day), it's important to follow safety guidelines.

- **'Back to Sleep'** - put your baby to sleep on his or her back
- **Place your baby at the foot of the cot** to prevent them wriggling down under the covers
- **Use a firm well-fitted mattress**
- **Choose suitable nightwear and bedding** for your baby
- **Do not use a pillow or a duvet** in the cot
- **Do not place toys or 'cot bumpers' in the cot**

Many mothers use baby sleeping bags. These are available in different weights (to suit the temperature of your house and/or the season). This is a good way to keep your baby covered and warm enough without the risk of wriggling under the covers.

Safety is increased if your baby is in the same room as you.

Appendix B: SIDS Information

There is still no certainty about the cause of “Sudden Infant Deaths”; research continues to explore the situation around the world. We have compiled our advice following an in-depth study of the latest research and after discussing guidelines with the experts in the field. We will continue to follow the debate and monitor our advice.

There has been some confusion about the protective benefits of sleeping together. This is largely due to the way that studies into SIDS have been interpreted: close analysis of ‘SIDS’ linked with ‘co-sleeping’ reveals that the vast majority of the deaths were connected with known risk factors, such as parental drug use or sleeping on a sofa. There is, to date, no evidence to suggest that co-sleeping safely in a parental bed increases the risk. The opposite is true: safe co-sleeping is likely to increase safety for babies.

Leading researchers’ views

James J. McKenna^{xxiv}, America’s foremost expert on infant sleep, and director of the Mother-Baby Behavioural Sleep Laboratory University of Notre Dame, Indiana, has carried out extensive research into infant sleeping. He has studied mothers sleeping with their babies for twenty years, and he has asked fathers to join in so he can observe the family. He has witnessed the dance between mothers and babies, he has noticed that mothers do not harm their babies, in fact they respond to their baby as they rouse. He noticed that co-sleeping babies cry less, feed more often and sleep more than babies in another room in a cot; and the mothers sleep more too.

McKenna challenges US governmental recommendations that babies are safest sleeping in a crib, and concludes that sleeping in the parents’ bed is optimal provided safety guidelines are followed: “Our data do not support this (governmental) recommendation. Almost all SIDS deaths associated with parental bedsharing occurred in conjunction with a history of parental drug use and occurred in association with the prone sleep position or sleep surfaces such as a couch or waterbed”^{xxv}.

Dr James McKenna’s view that it is safest for babies to rouse frequently during the night, and be tended to by mum, is shared by Dr Peter Fleming and Dr Peter Blair from the Institute of Child Life and Health at the University of Bristol. The precise physiological advantages are unknown; though it is known that very young babies find it difficult to arouse from deep sleep, a stage of sleep when they can be susceptible to periods of apnoea (absence of breathing), which may be detrimental to development. Sleeping with an adult encourages lighter sleep, which reduces this risk.

Some Statistics

Ninety percent of the babies in the world co-sleep, most safely. Without knowing the details of every family’s circumstance it is not possible to say that it is the safest option.

The data analysing SIDS in the UK, recorded by Dr Blair and Dr Fleming for WHO, reveals that in 2007 about 300 babies died from SIDS. Of all SIDS babies, 54% of SIDS occurred whilst co-sleeping: but among these babies, most died when known risk factors were present (for instance, on a sofa, or after alcohol or drug use). More than 99% of these babies slept in conditions that involved risks: fewer than 1% had been sleeping in a safe environment with their parents.

Reducing Risk Factors for SIDS: More Details

Smoking is presently thought to be the number one cause of SIDS. If a mother has smoked in pregnancy, been subjected to passive smoking or either parent is smoking around the baby after they are born the risk of SIDS increases. Dr Peter Blair of the Institute of Child Life and Health at the University of Bristol recommends that if you smoke you do not sleep in the same bed as your baby. This applies to mother and father. His research findings suggest that the incidence of SIDS increases if either parent smokes, even if they do not smoke near the baby.

Alcohol or drugs As SIDS has been more extensively researched, particularly cases that happened whilst the baby was sleeping with an adult, it has become clear that many of the parents had been drinking alcohol or taking drugs. When a parent's perception has been altered they are less aware of their bay and may be unable to respond to their baby's needs. The intuitive dance that occurs between mother and baby diminishes or stops when her senses are dampened by alcohol or drugs, leaving the baby in danger of suffocation or overlying.

Sofa or waterbed Statistics seem to show a dramatic increase in babies dying while co-sleeping – but the detailed research reveals that most of these 'co-sleeping' cases, babies where dying on the sofa with their mothers. Some mothers were nervous about sleeping with their babies in bed, so got up to feed on the sofa and then fell asleep, with their babies. Sofas are too soft, with many gaps for the babies to fall into, possibly becoming wedged, or overlaid by the mother, with the risk of suffocation. It is not safe to feed your baby on a sofa, waterbed or bean bag if you are in danger of falling asleep.

Exhaustion diminishes the mother's ability to respond to their baby as the body falls into a deeper sleep to repair, leaving the baby at risk from the adult. You will be responsible for gauging your own levels of tiredness: one measure of 'exhaustion' is when there has been fewer than four hours sleep the night before.

Sleeping 'prone' and 'Back to Sleep' SIDS Researchers in the 1980's found that over and over again they heard that the baby was found in the prone position: i.e. lying on their tummy with face down. The "Back to Sleep" campaign of the early 1990s reduced the incident of sudden infant deaths significantly. When researchers looked back through history prevalent images of sleeping showed babies on their backs in contact with their mothers. The natural position for a mother and baby breastfeeding in bed is for both of them to be supine (lying on the back, face upwards) with the baby turned towards the mother. James McKenna, while monitoring co-sleeping mums and babies, has found that mother and baby spend most of the night facing each other.

Mattresses and sheets A firm mattress is recommended: this prevents a dip in the mattress around your (adult) body into which your baby could roll or you inadvertently overlay. The mattress needs to fit snugly so there are no cracks into which your baby could get stuck and injured. Sheets then need to fit snugly on top. The idea is to reduce any hazards. The mattress needs to be on the floor or a guard put in place so baby can not fall onto the floor from a higher bed.

Researchers investigating SIDS discovered that babies had become wedged in gaps between the mattress and the wall: soft mattresses allowed babies to roll into dips under an adult and suffocate. Loose fitting sheets and heavy bedding also caused problems: babies became entangled and were unable to wriggle out. A baby in danger will attempt to move: light bedding allows a baby to move if necessary – and a baby will be able to push a small pillow out of the way and is less likely to get caught under it.

Safe bed clothes, and skin-to-skin sleeping If you are sleeping with your baby you need to keep the bedding light, both so you can move if necessary, and to avoid the risk of your baby becoming overheated. Sleeping skin to skin (see page 13) also increases safety: though of course the room needs to be warm enough for you both to be comfortable. It's important to avoid the risk of covering your baby's head, as this can contribute to a dangerous rise in temperature. If your baby is moist and sweaty they are too hot. Your baby becomes increasingly able to control her temperature as she grows older.

If your baby is unwell it is a good idea to seek advice promptly. If your baby's temperature becomes high due to illness an intervention may be needed to return your baby to good health.

End notes

ⁱ From: 'Why babies should never sleep alone: A review of the co-sleeping controversy in relation to SIDS, bedsharing and breast feeding'; James J. McKenna* and Thomas McDade, in *Paediatric Respiratory Reviews*, 2005, Vol 6. Also see Emily Wilson in the *Guardian Newspaper*, 16 October 2009; 'Sleeping with my baby (maybe) saved his life'

ⁱⁱ Major figures in this revolution of understanding about the impact of early years experience on the formation of the brain include Daniel Seigel, Joseph Le Doux, Jaak Panskepp, Margot Sunderland, Thomas R Verny.

ⁱⁱⁱ The term 'love hormones' was coined by French obstetrician Michel Odent. His groundbreaking work has largely focused on supporting mothers during labour and encouraging contact and breastfeeding after birth to enhance the flow of these health-giving body chemicals. For more, check out Michel Odent on Google; or go straight to his book 'Birth and Breastfeeding'

^{iv} See note vii

^v *A General Theory of Love*, Thomas Lewis, Fari Amini, Richard Lannon; Vintage Books (Random House) 2000. An in-depth look at how our babyhood experience of 'love' and 'relationship' affects our brains, and the way we relate to others, in adulthood. Written by leading psychiatrists and psychologists.

^{vi} *Childrens Sleep: An Interplay between Culture and Biology*. *Paediatrics* 2005: 115; 204-216. Oskar G Jenni and Bonnie B O'Connor.

^{vii} Dr Peter Fleming led research into SIDS in Bristol in the 1980s, and published results in 1989 stating the three main risk factors for sudden infant death as: babies sleeping face down, being covered in too many blankets, and being exposed to parental tobacco smoke. Following his findings, a UK-wide awareness campaign, 'Back to Sleep' was initiated, with Ann Diamond leading the television campaign. Within one month, reported cases of SIDS had fallen; and within 2 years the overall occurrence of what were then referred to as 'cot deaths' had fallen by 60%. The impact of the findings of Dr Fleming and his team at The Institute of Child Life and Health, Bristol University, has spread across 30-40 'developed' countries. The words quoted here come from *Case Notes* on BBC Radio 4, January 14, 2009.

^{viii} Well known for his support of close parent-baby contact, Consultant Paediatrician Dr Nils Bergman carried out detailed studies to reveal the impact of stress on a newborn's system. He set up the system of 'kangaroo mother care' or KMC, which we refer to on p 14. He has monitored levels of stress hormones, including cortisol, in separated and distressed babies. He records that high and especially prolonged stress reduces a baby's ability to regulate temperature, reduces levels of growth hormones, reduces immunity, increases heart rate, and interferes with sleep.

^{ix} This term is used by Dr Nils Bergman, of KMC (see note viii).

^x When the stress response is severe, a baby can end up feeling intense pain. There may also be an impact on the behaviour of a key anti-anxiety hormone in the brain, known as GABA (which helps to inhibit high levels of cortisol and calm the lower brain's threat detection system). If a baby is alone and very stressed, this may alter the behaviour of genes for GABA, which in turn may contribute to anxiety disorders and depression later in life.

^{xi} See Margot Sunderland '*What Every parent Needs to Know: the incredible Effects of Love, Nurture and play on your Child's development*' (2007) her revelations are based on research with Jaak Panskepp.

^{xii} For more on James McKenna, visit www.nd.edu/~jmckenn1/lab/. This quote comes from 'Why babies should never sleep alone: A review of the co-sleeping controversy in relation to SIDS, bedsharing and breast feeding'; James J. McKenna* and Thomas McDade, in *Paediatric Respiratory Reviews*, 2005, Vol 6, p136

^{xiii} See Eccles, JC. (2005) *Evolution of the Brain*. Routledge books, London; Sagan, C. (2005) *Dragons of Eden: Speculations on the Evolution of Human Intelligence*, Black Dog and Leventhal New York. Margot Sunderland (2007) *What Every parent Needs to Know: the incredible Effects of Love, Nurture and play on your Child's development*, Michel Odent *Womb Ecology.com*; Caldji, C et al (2000), *The effects of early rearing environment on the development of GABA and central benzodiazepine receptor levels and novelty-induced fearfulness in the rat.*, in *Neuropsychopharmacology* Mar: 219-29 ; Beatson J et al (2003), *Predisposition to depression: the role of*

attachment, The Australian and New Zealand Journal of Psychiatry Apr; 37 (2): 219-25; Schore, A. (2003) *Affect Regulation and Disorders of the Self*, Norton and Co. New York: 9-13

^{xiv} A General Theory of Love, Thomas Lewis, Fari Amini, Richard Lannon; Vintage Books (Random House) 2000

^{xv} If a parent becomes stressed in response to his or her baby's crying, this may trigger primitive 'alarm systems' in the parent's brain, giving rise to rage, fear or separation distress. The strength of these feelings is influenced by a parent's own experience in infancy. Distress may block the release of calming hormones (including dopamine and opioids) so the parent needs help to calm down. This is not, though, necessarily a recipe for further stress. A positive point is that there is an opportunity for a parent to become aware of their stress, and the options for reducing it.

^{xvi} Cited in Sunderland, M. A Science of Parenting 2006, taken from McKenna, J (1986), An antopological perspective on ISDS. The role of parental breathing cues and speech breathing adaptations),

^{xvii} Bergman, N. (2005) More than a cuddle skin-to-skin contact is key. The Practising Midwife Oct: 8 (9):

^{xviii} James McKenna; 2004 *Sudden Infant Death Syndrome*, in the Cambridge Handbook of Child Development.

^{xix} Emily Wilson in the Guardian Newspaper, 16 October 2009; 'Sleeping with my baby (maybe) saved his life' gives insight into the natural way in which a mum regulates her baby's breathing while they are sharing the same bed. You can also see this in motion on James McKenna's website: www.nd.edu/~jmckenn1/lab/

^{xx} Quoted by James McKenna in: 'Why babies should never sleep alone: A review of the co-sleeping controversy in relation to SIDS, bedsharing and breast feeding'; James J. McKenna* and Thomas McDade, in Paediatric Respiratory Reviews, 2005, Vol 6

^{xxi} James McKenna: 'Why babies should never sleep alone: A review of the co-sleeping controversy in relation to SIDS, bedsharing and breast feeding'; James J. McKenna* and Thomas McDade, in Paediatric Respiratory Reviews, 2005, Vol 6

^{xxii} Information presented on James McKenna website.

^{xxiii} James McKenna: 'Why babies should never sleep alone: A review of the co-sleeping controversy in relation to SIDS, bedsharing and breast feeding'; James J. McKenna* and Thomas McDade, in Paediatric Respiratory Reviews, 2005, Vol 6, p140

^{xxiv} For more on James McKenna, visit www.nd.edu/~jmckenn1/lab/

^{xxv} Why babies should never sleep alone: A review of co-sleeping controversy in relation to SIDS, bedsharing and breast feeding. Paediatric Respiratory Reviews 2005; 6, 134-152. McKenna J.

This Document was created by the Babiesknow Team: Kitty Hagenbach, Yehudi Gordon, Harriet Sharkey and Helen Biscoe-Taylor.

The information in this document is intended as general guidance to assist you in making your own choice about sleeping arrangements in your family. In no way is it intended to substitute personal recommendations in your unique situation; nor should be used to substitute medical advice for you or your baby. So far as the authors are aware the information in this document is correct and up-to-date as at November 2009; we are also aware that studies are continually being conducted and new research evidence comes to light regularly. The authors disclaim, as far as the law allows, any liability arising directly or indirectly from the use, or misuse, of the information contained in this document or on the Babiesknow website.

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