What’s love got to do with it?

Why connection and touch are the secret ingredients in embracing pregnancy, birth and babyhood.

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The Power Of Love

Love. It’s something close to my heart, no pun intended. How many songs and poems and stories have been written on love. Countless. Love is all powerful, universal in its meaning and has a profound effect on our body and mind.

What is love? From a biological point of view we can say a heady mix of hormones having an effect on our emotions and physical state. Not very romantic but incredibly clever of our bodies to produce chemicals which help to secure the future of the human race when we connect. What is exciting about this is, if love is created from a set of physical actions and stimulus leading to the release of hormones, that gives us the power to create love. We have a way to protect us from feelings of stress, anxiety, fear and isolation and a powerful weapon of connection, compassion and transformation.

So who is our scientific cupid, firing his arrow at our hearts. There are a few culprits but for this talk it’s an amazing hormone called oxytocin which Micheal Odent has described many times as part of the “love cocktail” produced at birth. Oxytocin is produces in a number of ways but for today I am going to focus on it’s creation from touch and how we can use touch and massage in pregnancy and beyond to support women and babies and enhance their physically and emotionally wellbeing.
Nurturing touch

I believe in using the power and benefits of nurturing touch throughout pregnancy, birth and babyhood. For those who might be new to the amazing power of touch, I thought I would take a moment to look at its effects on the body.

On a physical level touch and massage helps to activate the parasympathetic nervous system starting a cascade of relaxation responses that help to lower blood pressure, heart rate, support digestion and the immune system amongst other physiology benefits. It boosts circulation which helps the process of metabolism on a cellular level and supplies muscles, organs and bones with what they need to work efficiently. It helps to remove waste products from the body and it can improve the condition of the skin.

On an emotional level massage and touch helps to produce oxytocin which is our love hormone. It’s part of the hormonal team that cause the body to relax and re-balance the body after any stress and anxiety. It is know as the “love hormone” because it promotes feelings of love, connections and nurturing. It is very important in helping new mothers adjust to motherhood, prepare for caring for their babies and to enhance bonding.

Touch is core to our experience as humans. It is a vital part of life. The best part as I have mentioned, we all have the ability to give touch and receive touch in return. In essence love creates love through reaching out and connecting physically through touch.
Touch in pregnancy

- We know that pregnancy brings about many emotional and physical changes for women. It’s a time of transition and growth in all areas; physically, emotional and spiritually. It is a 9 month journey not only for the baby but also the mother.

- Physically a women can experience many common ailments of pregnancy which can make pregnancy uncomfortable. Postural and hormonal changes coupled with the double load of providing for the growing baby can be challenging.

- Some women also experience anxiety in pregnancy around carrying a new life, fear of miscarriage, body image and birth itself.

- Touch can help! “Overall, the present findings suggest that massage therapy is effective for reducing pregnant women’s anxiety levels, stress hormones, sleep disturbance and back pain and for lessening obstetric and postnatal complications.” Field, 1999
How touch & massage can help

- Physically, massage can help to boost circulation around the body and support the action of the women’s heart in pregnancy. It can help soothe overworked muscles & balance hormones.

- Emotionally, visiting a therapist for regular massage gives a woman the opportunity to schedule self care and also talk about any anxieties she may have. This can help change her mindset from fear to excitement and confidence which in turn can help prevent stress cycles of the perception of threat, to cortisol based hormone production to the physical symptoms of stress and anxiety.
Field T et al. Journal of Psychosomatic Obstetrics and Gynaecology, 1999- Pregnant women received twice-weekly, 20-minute massage therapy or relaxation therapy. After five weeks, massaged women reported reduced anxiety and back pain and improved mood and sleep compared with women who received relaxation therapy. Both groups reported reduced anxiety and leg pain. Massaged women also had lowered urinary stress hormones and fewer labour complications than women receiving relaxation therapy.-

LESS ANXIETY & PAIN

Field T et al. Journal of Bodywork and Movement Therapies, 2008-Prenatally depressed women received twice-weekly massage from their partners from 20 weeks’ gestation until term. Compared with a control group, who received no intervention, massaged mothers reported significantly less back and leg pain. There were also significant improvements in depression, anxiety, anger and the relationship with their partners by the end of the study. Their partners also felt significantly less depression and an improved relationship than partners in the control group-

LESS ANXIETY, PAIN AND INCREASED BONDING

Taken from RCM “Magic of touch”
General guidance

It is generally thought that massage is better after the first 12 weeks of pregnancy.

Neck back and shoulder massage is great to relieve tension and help with postural changes.

A foot or hand massage is a great way to boost oxytocin.

Seated or side lying position from 22 weeks should be adopted. Be cautious if there is any history of blood clots.

Studies have shown that babies can be affected by the increased levels of stress hormones in a mother’s body so the focus should also be on relaxation.
Love Lessons

- Oxytocin is produced throughout pregnancy in preparation for motherhood.

- Regular massage can support a woman’s postural changes in pregnancy and soothe common aches and pains.

- Higher levels of oxytocin can help to combat stress and anxiety which is good for mother and baby.

- Oxytocin helps the bonding process before birth.
The word Oxytocin means “swift birth” and is a vital ingredient in the birthing process, but as we will see it does so much more than this. It is incredible that the human body produces a hormone which causes the womb to contract to bring about birth, assists in the let down response in breast feeding and encourages nurturing feelings of love to help a mother bond with her baby. The presence of oxytocin is arguably crucial to the journey into motherhood. Pregnancy and birth should be overflowing with oxytocin!

Natural and spontaneous birth is seen to be important to enable a women to have the maximum amount of oxytocin present in the body at birth for a swift labour and adjustment into motherhood.

The presence of a doula or birth partner at birth skilled in massage and helping a women to feel empowered can help to boost oxytocin and help with pain relief.
How touch & massage can help

✦ Physically, massage helps boost blood flow to all the tissues in the women’s body, it releases muscular tension & decrease inflammation & can help to block pain messages to the brain through pressure. It also produces oxytocin to balance any stress hormones produced during labour making birth easier and quicker.

✦ Emotionally, it helps communicate you are being supported, changes our perception of pain and enables a birth partner to get involved to help support you in labour.

✦ It is also easy and quick to do, has no cost or side effects and is one of the oldest methods of pain relief.
Field T et al. Journal of Psychosomatic Obstetrics and Gynaecology, 1997. Women received 20 minutes of head, shoulder/back, hand and foot massage from their partners during labour every hour for five hours. Massaged women reported significantly lower stress levels and labour pain than non-massaged women. They also spent significantly shorter time in labour and in hospital- LOWER STRESS & LOWER PAIN

Kimber L et al. European Journal of Pain, 2008. A UK pilot study examined the effect of 30–45 minutes of regular massage, music or no intervention in women from 35 weeks’ gestation until they attended hospital in labour/for induction. Although too small to reach statistical significance, the study observed trends for reduced self-reported pain and more positive views of labour preparedness and sense of control from women in the massage group, compared with control groups. REDUCED PAIN AND INCREASED POSITIVITY
General guidance

Apply gentle strokes and pressure in the area where there is tension and tightness.

Keep the pressure consistent and rhythmic to help to release oxytocin and create a link between breathing and the massage strokes during contractions.

In between contractions use recovery strokes to help to keep the oxytocin flowing and keep the connection.

Use a vegetable based oil for massage.
Love Lessons

✦ Massage and touch in labour helps to produce oxytocin which supports the birthing process.

✦ Large amounts of oxytocin around birth help to prepare the body for post natal recovery and breastfeeding.

✦ Oxytocin can help a women feel more relaxed during birth and help combat discomfort.

✦ It can help to bond the mother and her birthing partner

✦ Massage helps to reduce inflammation of the muscles and boost circulation. It also produces anti histamines to help reduce inflammation.
Babies thrive on touch. Our skin is a vital sensory organ. It is the first organ developed by a baby in the womb and it is made of the same embryonic tissue as our brains. The skin is as thirsty for sensory experience as the brain, yet the power of touch is often underrated. The effect of skin contact, or the lack of it, can have profound consequences on all the systems of our bodies. Being held, touched and massaged is a natural intuitive way to nurture babies to adjust to the world from the womb and to support their physical and emotional development. Touch is vital for babies’ survival and should be central to any care that babies receive.

Studies have examined many different types of touch (including simple holding, holding in specific positions, massage, and skin-to-skin contact). These studies have shown that gentle touch has positive effects on newborns such as more regulated sleep, less distress and more activity. Touch stimulates the release of endorphins, oxytocin and serotonin, our “love hormones”, which promote relaxation and nurture a sense of love.

Skin stimulation helps to support vagus nerve function which regulates our body systems. The vagus nerve is the only nerve in the body that branches out to the parasympathetic nervous system in our bodies eg the circulatory, respiratory and digestive systems. It is heavily involved in the regulation of our relaxation responses in the body. It’s stimulation can help to bring the body into optimum balance for wellbeing particularly after any episode of stress or fear.

Over 600 scientific papers have been published on the effects of human touch on babies. Close physical contact is essential for the survival of infants. When a baby experiences separation from his caregiver he has lost his “connection compass” and he can become stressed. Studies of babies (human and animal) who have been separated from their mother’s or care givers and deprived of human touch and interaction show that there can be serious effects such as delayed growth and development, illness, higher stress levels and issues with attachment.
Skin to skin

Having skin to skin contact after birth is our mammalian instinct. Just as a mother cat licks her baby all over after birth to clean him and stimulate his gut, breathing, circulation and nervous system, so in many cultures babies are greeted into the world with a massage. Often midwives will rub the skin of a baby to stimulate him and through touch awaken his senses.

I love this quote by Nils Bergman- “When babies are held naked against their mother’s skin, it is the closest they can get to being back in the warmth and security of the womb. It is the only place in which newborns have survived for the last million years, and developed toward optimal health. It is in our DNA to crave skin contact. Skin contact after birth supports the maturation of the nervous system as we continue to provide sensations and stimulus into the brain which is familiar to the baby from the womb. This allows a sense of continuing their journey from the safe environment of the womb into the world and makes adjustments easier”
Skin to skin

How much skin to skin a baby receives is variable and dependent on a parent’s own experience of touch, how she was parented and the culture she lives in. Skin to skin contact has been shown to be essential for the healthy development of a baby but cultural norms and historical advice and trends influence our ability to tune into our babies. The West generally puts emphasis on getting a baby to be independent and self regulate but separation from a mother is not something which a baby is programmed for and so he may protest. Sadly this is seen as a baby being difficult or troublesome when in fact he is just flowing with his genetic programming and survival instinct.

Skin to skin is beneficial for mothers as it helps to produce oxytocin which adapts the body for breastfeeding and helps contract the womb after birth, A mother’s body experiences an influx of oxytocin during and after birth and it is interesting to consider if a lack of this important hormone arising from caesarean sections, clinical practice, separation, bottle feeding and crib sleeping affects a mother’s mental and emotional state. Studies show that babies born by Caesarean have lower levels of oxytocin after birth and therefore skin to skin is even more important.
Magical hour

- The magical hour is a nine stage, skin to skin based process after birth which provides the much needed skin contact between mother & baby. It is very useful in helping the baby adjust to the world from the womb, begin to regulate her/his own body and supports bonding.

- We can generalise that as a result of skin to skin after birth babies’ body temperature is better regulated, they appear to be calmer and their heart and breathing rates are normalised. The increased oxytocin produced can help to improve milk supply in a new mother.
Kangaroo Care

Kangaroo care was originally developed in 1978 as a desperate move to save premature babies in resource-poor hospitals that lacked enough incubators. It began in Columbia and soon spread across the world as a beneficial practice for premature and newborn babies. It is now governed by the Kangaroo Foundation in Columbia. It has influenced the growth of interest in touch and massage for premature babies and newborns.
Kangaroo Mother Care

- KMC is “the early, prolonged, and continuous skin-to-skin contact between the mother (or substitute) and her low birth weight infant, both in hospital and after early discharge, until at least the 40th week of postnatal gestation age, with ideally exclusive breastfeeding and proper follow-up” (Cattaneo, Davanzo, Uxa 1998).

- Nils Bergman states that skin to skin contact should start from birth:

  “In mammalian research, separation tolerance is measured in minutes!! The underlying neuroscience is that the baby is stressed for most of the time as she is separated from Mum, and this stress keeps the baby unstable. Holding your baby in skin-to-skin for over an hour is needed to make a full sleep cycle, which wires brain circuits. It also decreases the load of stress which protects from long term "wear and tear" effects on baby organs and metabolism. The neurobiology also changes, the constant sense of safety makes for better emotional and social development”
Early Contact versus Separation: Effects on Mother–Infant Interaction
One Year Later K Bystrova K, V Ivanova V, M Edhborg et al Birth 36, 2002. This Russian study compared possible long-term effects of mother-infant interaction with both skin-to-skin contact and with separation of mother and baby. The researchers found that either skin-to-skin contact, early suckling, or both during the first two hours after birth when compared with separation between the mothers and their infants positively affected the outcomes of infant self-regulation at one year, and the mother showed greater interaction and interest in the infant and greater reciprocity compared with the separated pairs. The researchers argue that this shows that close contact between mother and infant immediately after birth may induce long-term positive effect on mother-infant interaction.

**BETTER SELF REGULATION & BONDING**

Dieter JNI et al. Journal of Paediatric Psychology, 2003. Pre-term hospitalised babies received thrice-daily, 15-minute massages for five days. Compared to the control group (that received no massage) massaged babies gained 53% more weight every day.

**WEIGHT GAIN**

Moore ER et al. Cochrane Database of systematic reviews, 2007. A systematic review of 30 studies into the benefits of early skin-to-skin contact for mothers and their newborn babies. The plain-language summary stated that skin-to-skin contact between mother and baby at birth reduces crying, improves mother-baby interaction, keeps the baby warmer and helps women breastfeed successfully.

Taken from RCM “Magic of touch”
General guidance

Get as much skin to skin as possible after birth. Stay with your baby as much as possible. Nurture yourself and take time to recover at birth. Increase your exposure to oxytocin as much as possible through self care.
Love Lessons

- Mothers & babies should be kept together and have as much skin to skin contact as possible after birth.

- For non breastfeeding mothers, skin to skin is a great way to boost oxytocin.

- Using touch after birth supports a women’s postnatal recovery. In many cultures women receive massage and are nurtured by other female family members. This helps boost oxytocin which helps to contract the uterus after birth to support breastfeeding, sleep, improved digestion and enhances relaxation.

- Oxytocin can help to support a women’s mothering and nurturing instinct which can make adjustment to motherhood easier.

- A women’s oxytocin levels can be boosted through self care and especially massage and nurturing touch.

- Oxytocin after birth can help to reduce the levels of stress based hormones produced during birth. It supports a baby’s parasympathetic nervous system.
Origins of infant massage

- Many cultures have massage and touch as a key part of baby care. The practice of baby massage comes from India where babies are massaged many times in the day for health and wellbeing.

- Baby massage has been practised in the West since the 1970s when Vimala McClure went to India and observed how babies thrived on regular massage despite having poor material circumstance., Fredrick Leboyer also observed similar effects. Experts on touch and massage such as Tiffany Field then started to research the benefits of touch for babies and infant massage classes were offered to new parents.

- I train teachers to teach infant massage and yoga to parents across the world as well as running charitable projects for women and babies in poverty using the power of touch.
How touch & massage can help—Relief

- Relief-Massage can bring relief to a number of conditions suffered by babies which can cause them to be uncomfortable during the first months of life and beyond.

- Relief from colic and wind is an important benefit of baby massage. Massage helps to tone the digestive tract, expel wind from the body, break down large air bubbles and speed myelination between the nerve cells in the stomach and the brain thus making the digestion of food and elimination of waste more efficient.

- Infant massage can also bring relief of teething pain by massaging the mouth and gums and ease colds and congestion by helping to drain the nasal passages of mucus.
Relaxation

- Relaxation- When you massage a baby the baby’s body produces oxytocin which helps to lower the levels of stress hormones in the body and therefore help to lower blood pressure, heart rate, improve appetite. It activates the parasympathetic nervous system which in basic terms can help babies sleep better and improve digestion. Two important activities after birth to help babies grow and thrive.

- When babies experience fear, anxiety or stress through pain, hunger or physical separation, adrenalin based hormones are produced causing a baby to begin to tell us they need help and response. Picking up a baby, touching, cuddling a baby and giving a baby eye contact helps to produce oxytocin which lowers the levels of stress hormone and rebalances a baby’s physical and emotional response. Sadly babies that are left to cry for prolonged periods on a regular basis may suffer the physical and emotional effects of stress. In extreme cases of neglect the structure of the brain can be altered as cortisol blocks the ability for the brain to make connections between brain cells. It can also create an emotional blueprint for the baby that is hard wired for stress. In essence when babies are cared for gently and have their needs responded to, we help grow babies’ brains with love and they thrive.

- Massage is good for helping parents relax too. When a mother massages her baby, she also produces oxytocin which helps her relax and supports her mothering instinct. Some of the amazing qualities of oxytocin for new mothers include a higher tolerance of monotony helping with responding to baby’s needs, increased expression of emotions, improved digestion, wanting to spend increased time with her baby, feeling altruistic and a lessen ability to remember which can be useful in tuning into the moment.
Studies on mammalian maternal contact during infancy suggests that the brain cells of a baby not exposed to maternal touch can degenerate and die as a result of such deprivation thus impending the development of the infant. It has also been observed that animals separated from their mothers after birth for as little as 45 minutes can undergo internal changes including a dramatic drop in growth hormone. It has also been observed that an infant deprived of touch will rock itself back and forth in order to have some kind of nervous stimulation.

Several studies suggest that stimulation of the skin speeds myelination of the nervous system. It has also been suggested that better “brain to body” communication can help to prevent colic and unsettledness caused by over stimulation by helping the nervous system to mature in order to cope with stimulus.

Increased circulation as a result of massage will help to supply all the babies cells, tissues and organs with what they need for metabolism and growth.

Touch also helps with a baby’s sense of proprioception or body awareness helping him to discover his body in his environment.
Infant massage plays an important part in beginning, enhancing and continuing the bonding process. Many studies have been conducted on the way that parents and babies bond and a number of key factors have been identified in the process.

**EYE CONTACT** - Eye contact between mother and baby is very important because it helps the two to recognise each other and aids communication.

**SOUND OF VOICE** - In an experiment conducted by Restak in 1986 a group of newborn’s were read a story through earphones by various people and their responses monitored. When they heard their mothers’ voice they sucked harder. They preferred their mothers’ voices to any other. Mother’s are also able to distinguish their babies cry from other babies as soon as only three days after birth.

**ODOUR** - Porter’s research in 1983 showed that after just two hours of exposure to their newborns, 80% of mothers could distinguish their babies’ clothes from other babies’ clothes by smell.

**OXYTOCIN AND PROLACTIN** - When the mother has skin to skin contact with her baby this helps to release oxytocin and prolactin which help the uterus contract, builds milk supply and help the mother relax. As we have seen above oxytocin is known as the “love hormone” or “altruistic hormone” as it promotes feelings of nurturing and love towards each other.

**TOUCH** - produces oxytocin and communicates “love” chemically.

All of the above factors are present during a session of baby massage making it the perfect environment in which to encourage or continue bonding.
Science

- Lahat S et al. Journal of the American College of Nutrition, 2007. - A crossover study examining five days of massage followed by five days of no massage (or vice-versa). Massage comprised three 15-minute sessions per day. During the period of massage, energy expenditure was significantly lower than when massage therapy did not occur. - **LESS ENERGY LOST**

- Directly reduces inflammation and increases vagus nerve activity (a key part of the body’s stress management system) (Feldman, Singer & Zagoory, 2010; Schore, 2001) - **SUPPORTS REST AND DIGEST**

- Helps regulate and stimulate healthy brain growth and activity – particularly on the right side of the brain (Diego, et al., 2006; Guzetta, et al., 2011; Jones, Field & Davalos, 1998; Schore, 2001); - **SUPPORTS EMOTIONAL BRAIN RESPONSES.**

- Field T. Current Directions in Psychological Science, 2001 - A review paper discussing how massage increases weight gain in pre-term infants. Includes prior data showing significant weight gain in massaged pre-term infants, versus unmassaged babies. The evidence for potential underlying mechanisms (including protein synthesis, increased motor or vagal activity or involvement of oxytocin and IGF-1) are reviewed - **WEIGHT GAIN**

Taken from RCM “Magic of touch”
General guidance

You can begin to practice regular baby massage from 8 weeks.

Massage with an organic based vegetable oil.

Always take the lead from your baby.
Always make sure your baby is happy and healthy before you begin.
Love Lessons

- Babies thrive on touch and love being in close physical contact with their caregivers.

- Oxytocin supports the “Rest and Digest” function important for babies to recover from birth.

- Babies that are relaxed and receive consistent care from their caregiver are likely to become attuned to their parent helping them to start to lay down a positive emotional blueprint.

- Massage can help with things such as colic, constipation, wind, teething pain.

- Oxytocin helps to enhance the mother & baby bond which can facilitate better communicate and understanding.

- Touch is vital to the physical and emotional development of babies.
Love Creates Love

Touch and connection in the community
Teach the importance of nurturing touch, massage, connection and self care for parents in pregnancy, birth and parenthood. A supported and valued parent can respond to her/his baby from a place of feeling nurtured.

Parent’s are children’s first teachers through their responses, emotions and actions. Nurturing touch and physical closeness communicates trust and security and helps a baby to feel relaxed supporting his emotional and physical development.

Children grow to learn about empathy, compassion and kindness which can help to create a better society. Parents feel they are celebrated and supported through community groups.
Nurturing touch should be central to the care mothers & babies receive.

Gayle Berry