

Birthlight nurture and infant massage oils



Touch is widely believed to be our first sensory input early in the womb. Emerging into the world it remains critical for comfort, development, good health and well-being for baby and parent. Massage makes real the ethereal concept of love as chemical reactions create a cocktail of hormones to produce the neurological beneficial process for attachment of baby and bonding for the parent. This is the crux of the [Birthlight Nurturing Baby Massage training](#). Skin is the precious conduit in this connection. As well as a sensory organ it acts as a temperature regulator, hydration manager, waste eliminator and protective barrier – baby's first line of defence.

Confusion and confidence

Confusion may arise from inconsistencies in advice from health professionals, lack of expert consensus and outdated NICE guidelines (Walker et al, 2005; Meza 2013). Some conclude that this leads to uncertainty in mothers (Lavender et al 2009). In a recent straw poll of mothers using a local UK children's space (Prescot 2016) they were quite clear about the oils they confidently enjoyed using at home on baby's skin, ranging from over-the-counter emollients they reassuringly found 'worked', expensive brands of which the pleasing perfume gave them a 'lift', popular baby oils with familiar nostalgically reassuring scent, to the edible oils - coconut, sweet almond, grapeseed - all smoothly lubricating their home massage practice....and the list went on. Unscientific, yes, yet reaffirming that mothers sometimes disregard professional advice on baby skincare products (Lavender et al 2009).

The thing we all do agree on: baby's skin is precious. The largest body organ, its complex developmental process begins shortly after conception. What we rub on our baby's skin is of concern to parent and infant massage instructor; we all want the safest and best oils. The conversation continues as we pour into the debate the elements of traditional practice, family ritual, Ayurvedic routines, cultural preferences, popular myths and marketing persuasion. In recent years research evidence has tilted the balance from one popular oil to another. Minds are put at ease, until confidence in a piece of research crashes when its conclusions are overridden by conflicting findings from a subsequent trial, and we aren't always aware about the robustness of the research. One thing that research trials do prove is that because an oil is natural and/or edible doesn't necessarily make it either safe or beneficial for infant massage. And neither does a mode of refining, an organic stamp, a fancy label or an expensive price tag.

Olive oil v Sunflower oil

Olive oil has long been hailed for its health benefits, including its use in infant skincare. The beneficial use of olive oil for infant massage was challenged when research emerged that oleic acid, a constituent of olive oil, delays skin barrier recovery on damaged skin (Danby et al 2013). Sunflower oil stepped into the breach (Stoia et al, 2015; Danby et al 2013), being low in oleic acid whilst high in the antibacterial, regenerating, restructuring and moisturising linoleic acid, with studies deducing that sunflower seed oil saved the lives of preterm babies, enhanced the skin barrier function, while opening eyes to the damage caused by the use of mustard seed oil (Darmstadt GL, 2008). Many used bottles of refined organic sunflower oil later; a recent



randomized control trial on infant skin indicates sunflower oil delays the development of the crucial skin barrier function, damaging the integrity of the superficial layer of skin, the stratum corneum (Cooke et al. 2015). Manchester University based midwifery lecturer, Alison Cooke, one of the authors, concludes that the use of olive oil and sunflower oil 'on newborn baby skin should be avoided' (Manchester.ac.uk. 2015).

What of the long list vegetable oils as yet largely un-trialled apart from their nutritional value of absorption....safflower with its high linoleic value, rapeseed with macrobiotic value, sweet almond rich in Vitamins A, B2 and B6, internationally popular coconut oil which began as lubricant of choice in most Asian-based research, providing substantial evidence for the health benefits of infant massage. Without appropriate, large, randomised, controlled trials, we must use scientific rationale alongside intuitive wisdom.

Mineral oil

Mineral oil in its pure state is a natural product with allergic reactions thought to be rare. All of the baby oil products, however, contain added ingredients, from an unidentifiable 'parfum' through to a cocktail of essential oils. Whether mineral oil creates a barrier on the surface or has degrees of absorption through the skin is unconfirmed. Acting as a skin barrier the oil has the benefit of maintaining hydration and reducing infection (Stamatas, 2008). If ingested it is of nil nutritional value, it's petroleum based molecular structure making its 'indigestibility' potentially damaging to the immature digestive tract: The greasy film remaining on baby's skin proving a practical issue on the risk assessment form as an 'extremely slippery baby' hazard. Worryingly the added essential oils which many of us grown-ups find enticing, can disrupt babies' subtle hormonal balance (Fergie, 2010).

Fancy brands

Parents who wish to protect baby by buying branded fragrance-free oil are more often than not paying way over the odds for sunflower oil. Other cleverly marketed essential perfumed oils contain a large range of vegetable oils which are neither refined, cold-pressed nor organic. The main attraction in these products is often the smell, mothers finding an emotional pleasurable reaction to feeling happy or relaxed by the perfumes concocted from synthetic chemicals, essential oils or plant extracts: however pleasing these may be the grown-up, baby loves best the smell of his/her carer. A

strong masking effect is arguably a hindrance to the natural bonding/attachment process, clouding the pheromones which mingle with natural odours released through the skin for both parent and child, which under natural circumstances weave the magical bond of familial love. And the added perfumes can veil the stench of oil turned rancid.

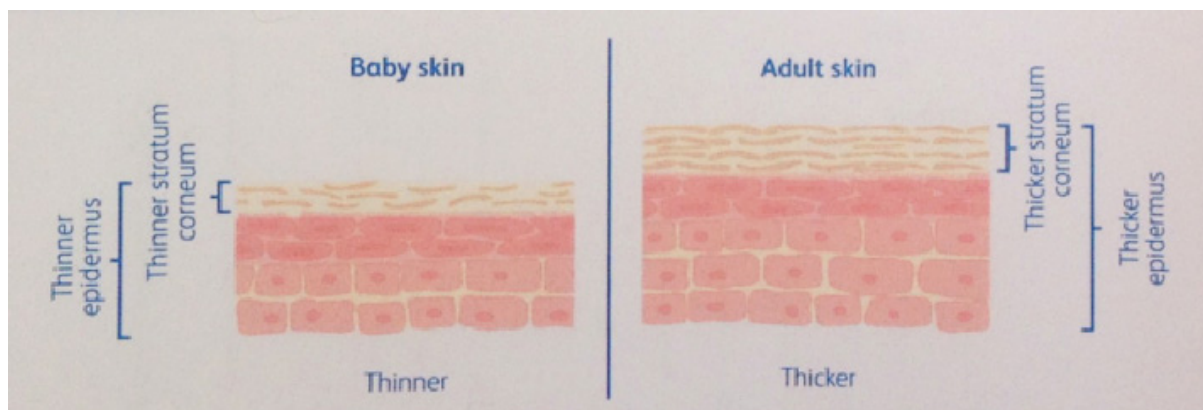
Eczema concerns

Evidence indicates eczema is on the increase globally (Nutten, 2015). Cooke's Manchester University research suggests a link between eczema and substances used on our babies' skin. Our main concern is whether babies' skin barrier can be breached by the substance with which we lubricate to prevent friction during massage. Once the delicate layers of skin are compromised, a cascade of issues can arise. Dermatologists (Cork, 2010) claim that babies with a genetic predisposition to eczema, for 6 weeks after (full term) birth, are especially vulnerable to baby products, some prescribed creams, oils with detergents, scented products, olive oil and now, of course, sunflower oil. Damage to the skin layers in babies has shown correlation with progression to childhood allergies and asthma (Spergel JM, 2010). The last thing we want to do is unwittingly cause damage, after all we promote this invaluable massage process to enhance the natural nurturing process and the proven long lasting beneficial holistic effects.

Baby skin stage

If the question of oils wasn't enough to create a dilemma for parents, we add to the permutations of choice: the developmental stage of the baby's skin.

Babies born before term have less mature skin, the protective walls (epidermis and stratum corneum) are delicately thin and the 'bricks and mortar' construction not yet solidly built. Arguably the very best and priceless lubricating skin cleanser, anti-infective, anti-oxidant moisturiser is the vernix on a newborn's skin, and is best left in place (WHO, 2003; Yoshio, 2004). Infant massage which allows parents of premature babies the precious opportunity to enjoy loving contact even with baby in incubator has shown that oil, used as a lubricant to prevent skin friction, promotes bonding/attachment, weight gain and emotional development (Field, 2010). A gentle form of infant massage focusing on positive connection through still touch can be practiced without oil, though research concluded that this was less beneficial physically and emotionally for baby (Sankaranarayanan, 2005).



Stratum corneum and epidermal thickness in infants v adults (Source: Johnson and Johnson public leaflet)

Yet despite published research suggesting the use of oil being advantageous for healthy development of prem babies (Field, 2010; Fallah, 2013), a Cochrane Database systematic review concluded that topical ointment is best avoided for preterm babies (Conner, 2004). This leads us to question, on balance, early introduction of infant massage. Traditionally in areas of India, infant massage is not started until the second moon of the baby's life, and if the baby is born early, the second moon after the expected full term. Certainly we should question carefully the use of oils on immature skin. Fortunately in Birthlight we have various ways of communicating loving touch to babies in all developmental stages without the need for oils.

Which oil to use, if any, at which stage is not straight forward. At Birthlight we gather research, evidence-based practice, input of parental preferences and importantly, the individual needs of baby, to create the rationale supporting the best practice for Birthlight babies' joyful nurturing.

Detailed background

For [Birthlight Nurturing Baby Massage teachers](#) we have a handout for parents, discussing the best storage bottles, information on oils, developmental stages of baby, which we will update as and when needed. For those of you envisaging training as an infant massage instructor, we offer more substantial information on the content of oleic & linoleic fatty acid content, ph. balances, viscosity, refining processes and the development of skin structure.

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