

# Alternative methods of care for the newborn and infant

Magdalena Sulima<sup>1</sup>, Ewelina Granisz<sup>2</sup>,  
Magdalena Lewicka<sup>1</sup>, Weronika Topyła<sup>3</sup>,  
Grzegorz Kowaluk<sup>4</sup>, Weronika Pucek<sup>3</sup>, Artur Wdowiak<sup>3</sup>

<sup>1</sup> Department of Obstetrics, Gynaecology and Obstetrical-Gynaecological Nursing, Faculty of Health Sciences, Medical University of Lublin, Poland

<sup>2</sup> A graduate of Obstetrics, Faculty of Health Sciences, Medical University, Lublin, Poland

<sup>3</sup> Diagnostic Technics Unit, Faculty of Health Sciences, Medical University of Lublin, Poland

<sup>4</sup> International Scientific Association for the Support and Development of Medical Technologies

## Abstract

Touch has a huge impact on child development. It has certain advantages not only for children but also for parents or guardians. That is why it is so important not to avoid physical contact with the toddler. Newborn loves when it is petted, hugged, lifted up or carried on the arms. His mother's heartbeat gives him a sense of security, when he is close to his mother.

A child needs touch sensations from the first seconds after the birth. Therefore, daily care of the child using the touch becomes very important. But not a touch that is a hasty, routine, without a moment's hesitation. This touch should provide love and safety for your child. Do not be afraid of techniques such as Kangaroo care, babywearing or massaging, but skillfully use them in your child's life for its proper development.

**European Journal  
of Medical Technologies**

2018; 1(18): 35-40

Copyright © 2018 by ISASDMT  
All rights reserved

www.medical-technologies.eu  
Published online 09.05.2018

## Corresponding address:

Magdalena Sulima  
Department of Obstetrics,  
Gynecology and  
Obstetrical-Gynecological  
Nursing, Faculty of  
Health Sciences,  
Medical University  
of Lublin, Poland  
Chodźki 7, 20-093 Lublin

## Key words:

touch, kangaroo care,  
babywearing, massage

## Introduction

Touch is one of the most important senses for every newborn human. Sense is developing in the mother's womb, where a fetus feels first touch sensations. After the birth, the most important need of every child are closeness and security [1,2].

## Alternative forms of care

### Contact "skin to skin"

The first contact between a mother and a child has a powerful impact on both of them. For a newborn baby it is a moment in which it explores world for the first time . This moment has consequences in its later life. In turn, for the woman is the time when she starts playing a new role in life –she is becoming a mother [1].

The literature gives three types of proceedings referred to as an early contact "skin to skin" – STS The first is the early postnatal contact "skin to skin" (in birth STS), which is considered to be optimal. Another very early contact STS (STS very early) starts from 30 to 40 minutes after the birth. The last described type of contact is early STS, which begins 24 hours after the birth, and is proceeding properly [1].

Putting the newborn immediately after birth on a woman's body before cutting the umbilical cord is the first early postnatal contact STS proceeding properly. From the perspective of the newborn, the best circumstances are when the child passes slowly from the womb to its mother's arms, at the same time feeling her heat and her heartbeat. In such conditions, the stress associated with the birth decreases. Next steps with the infant after the birth should be carried out on the mother's stomach or chest. These include operations such as the setting identification wristband, drying and heating to prevent heat loss or Apgar score. The rest of the testing should be postponed until the end of the first contact [1,2].

According to the Minister of Health's regulation, STS contact immediately after birth should last until the end of the first feeding and not less than one hour. Contact between the mother and the infant may be

interrupted only in life-threatening situations of one of them [1].

Contact "skin to skin" in the first hours of life allows the infant to preserve control and capture what is known and loved. For a child touch becomes a source of information about the world. It affects the sense of security, psyche, and social relations. Therefore, it should be provided optimal conditions for the development of the infant, assured uninterrupted physical contact with the mother that is a touch. In this regard, even Caesarean section does not exclude the contact STS [1].

A woman after having spinal anesthesia can welcome your child by hugging her newborn cheek to cheek . After returning from the operating room, early contact "skin to skin" between a mother and a newborn should be done as soon as possible. The father can positively influence the behavior of their baby, particularly in the field of behavioral preparation for breastfeeding at this particular time for neonate [3].

The newborn should be undressed and put on the bare chest of its mother, so that it could easily find the breast and begin to suck it. In this case, it is not allowed to intervene and put a child on the mother's breast by force. First few hours after birth are very important period in human development. Providing at this time the proper emotional contact and emotional relationship is the need to everyone regardless of age. Appropriate contact between mother and infant after birth can provide the newborn a better opportunity to adapt, and the ability to build a proper relationship between a mother and an infant [3,4,5].

### Kangaroo care

Every human needs warmth, hug and a nice touch regardless of age or gender. A sense of touch already developed in the womb becomes a source of information about the world for the newborn man. It has a huge importance because it affects its physical and psychological development. Therefore, in the last decade more and more known method of child care becomes Kangaroo Mother Care (KMC ), a standardized system of care, based on specific protocols. The main element of Kangaroo is to provide direct contact "skin to skin" between a mother and her child,

possibly between the father or other close person from the family [6,7].

Kangaroo Method is recommended not only in maternity and neonatal wards, but also in the neonatal intensive care. Similarly, it is used in premature or low birth weight, as well as in term neonates, with no abnormalities and normal vital signs [8,9].

In the case of infants who were born with low birth weight, there is opportunity of intermittent "Kangarooing" (I-KMC-intermittent), the repeated contact of the newborn for a short time, prolonged gradually until it reaches the stage of the continuous kangaroo (C-KMC – continuous) – the desired purpose. At the time of application this method, mother and child should be treated not separately, but as a single entity, so. like mother-infant dyad, which is the extension fetal conditions ectopic [9].

The intensive use of this method creates a harmonic, repeatable and long lasting, i.e. successful stimulation multisensory. During one session all exteroceptors activates. First of all mother and child have a chance to make eye contact. Next, auditory impression are activated, a parent says or sings to the newborn who is cradled to their chest. As for the sense of taste, a positive effect on lactation involves an increased excretion of prolactin. When the mother is holding a child in her arms it has the ability to see when it is ready to suck the breast. During Kangaroo newborn strongly feels the smell of the mother or father [10].

Kangaroo method rests on putting a newborn covered with a blanket or a diaper on the mother's chest or other person, or contact "skin to skin". This represents a very close contact of two people. During Kangaroo method baby hears the mother's heartbeat, is rocked when the mother's chest rises during respiration and is heated her heat. This situation makes the newborn feels like in the mother's womb, the newborn calms and falls asleep easily [6].

In healthy newborn Kangaroo method can be initiated immediately after delivery for at least 20 minutes. As a result of this activity, the child feels safe in its new surroundings. Over the next six weeks, it is recommended that parents should use kangaroo method as often as they want. During this activity, mother can breastfeed. Newborn can be kangarooed

almost by everyone who is related to him. This can be a mother, a father, siblings, and grandparents or foster parents. For infants who were born at term, the right time for Kangaroo method is from 12 to 24 hours a day. During the session, the child should only wear only a diaper. Indoors it does not need a cap because it can be the cause of overheating. An exception is Kangarooing outdoors or at low temperatures [11].

Newborn's satisfaction with Kangaroo method can be assessed by observing its behavior. If your toddler will be less active and begin to fall asleep, it will be the most eloquent answer. Sleepinf during kangarooing is different from that in a crib, it becomes deeper and as a result gives a feeling of greater relaxation. After waking from sleep, while Kangarooing, infants eat with greater eagerness and enthusiasm. During the session, when a person who is kangarooing, is sitting or lying, can read or listen to quiet music. However, if it is a mother who at the same time feeds a toddler, should not forget about rectifying fluids [11].

An important issue concerning Kangaroo is the time, when you give up using this method. Children who were born at term should be kangarooed up to 12 months of age. The child will give signs, when this method is no longer for him and it is uncomfortable than it just start to drill. This kind of behaviors appear approx. 38-40 weeks, and in other cases, only between 12 and 24 months of age [6,10].

Kangaroo method brings many benefits for both mother and child. It is, among others, effective in maintaining body temperature of the infants with disorders of thermoregulation, it does not contribute to abnormalities of vital signs in neonates with low birth weight, who has already experienced stabilization. Kangaroo minimizes the risk of apnea and gastroesophageal reflux, reduces pain and stress reactions, and also helps in faster stabilization of vital functions in children born after 28 weeks of pregnancy. It has a positive impact on quality and sleep patterns, makes feeding becomes acceptable and enjoyable experience. It reinforces neurobehavioural development, is supports the mother and family and prevents the feeling of helplessness and anxiety to the separation. Kangaroo care emphasizes the role of the family in the care of vulnerable children, promotes the participation of the mother and father in the care

of a toddler. It helps to initiate breastfeeding, its exclusivity and duration. It facilitates quick home discharge and reduces the length of hospital stay [8,12].

## Babywearing

Wearing a baby in a sling is classified as one of the pillars of parenting proximity. It is a recipe for a caring, loving, warm and respectful care for a new baby. It creates the possibility for a quick and adequate response to the signals sent by the child. It is a kind of response to the needs, both a toddler and its mother [13]. Carrying a child is one of many nursing activities of daily living, such as washing, feeding or re-winding [14].

Toddler is designed by nature to be worn on the body of the parent, and therefore babywearing is a call for the needs of the human infant for whom touch becomes a guarantee of survival. Child's natural reaction during lifting him from the ground to the top is leg squat while we tweak. This is called "frog" position [15].

Babywearing is a safe form of carrying children, and confirmation of this is the fact that the development of these children, which consists of the ability of independent gripping head, sit, or walk does not deviate from the norm. Researches show that babies who are carried in slings slightly faster reach milestones in comparison to children who have never been carried. To start walking is one of such examples, which occurs two months earlier in children who have been carried. Baby who is carried in a sling has naturally curved spine, what is appropriate to the infantile stage of development. Babywearing has an impact on the development of muscle strength, and improving coordination by constant matching the baby's posture to the body movements of the wearer. Newborn baby in the sling takes the best position to treat hip dysplasia, so it can be also used prophylactically [14,16].

Smooth and gentle movements that the parent does with the baby in the sling creates an ideal form of stimulation of the sense of balance through the labyrinth of the newborn. The effect of this is to improve the development of psychomotor skills. Vestibular stimulation has a positive effect on the development

of unconditioned reflexes and improving motor skills such as walking [14,15].

Wearing baby in a sling provide optimal conditions for his cognitive development. Toddler in the sling being face to face with a parent is present in the adult world. A parent says to him often, it sees more, more things can touch, smell, taste. The baby who is carrying in a sling receives more stimuli than the baby who is lying. Direct contact between the parents and the child has a positive effect on the traceability and processing the visual stimuli by a toddler [14,15,16].

Some studies and treatments can be performed when a child is hugged to its mum in a sling, it reduces the level of pain and fear of the newborn. Such tests may include, among others, cranial ultrasound or blood sampling from the heel. Babywearing is recommended to adoptive families, mothers with depression and addiction. They are also indicated for children with gastro – esophageal reflux disease, Down's syndrome, as well as in the blind [17].

A very important element of babywearing is the appropriate choice a sling. The sling and the way of bonding should be carefully adjusted to the age, health and stage of child development. For newborns and small infants, it is significant that scarf must be a stabilizer for the spine along its entire length, hold head and provide to take the position of the "frog" position [15,16].

Babywearing which is more and more common brings joy to both child and parents. Both walk, shopping, or moving by public transport with toddler cease to be a chore. Preserving a close contact by switching carriage to scarf gives the child sufficient amount of positive emotions, which affects a better start in adult and challenging life [13].

## Shantal's Massage

The Touch plays a very important role in life, which is especially important for young children, who need showing sensitivity through cuddling, to develop socially. The need of feeling touch is one of the main needs of the newborn. One such form is a tactile stimulation is a massage [18].

It is a complex process, which consists of several elements, belongs to them touch, smell, eye contact,

tone of voice of the person who massages, as well as the pace and the rhythm in which the "masseur" moves. Massage provides a sensory experience and affects the mental, physical and emotional development of the child. Massage is a natural form of stimulation that may be a necessary step in nursing activities [19].

One form of massage is Shantal's massage. This technique is a throwback from the past to the present tenses. It is the discovery of the wisdom of the common people. Shantal's massage is performed very gently, slowly, at a steady pace without taking your hands off the baby's body [20,21].

Shantal's massage is introduced in the first days or weeks of life. The only contraindications for its execution are high fever, skin breakdown, skin disorders, all types of injections, common cold, acute inflammations, vaccinations, and cancers [20,21].

The ideal place to perform massage is a warm, cozy room with the proper temperature, on the floor or on the knees of the person who massages. The indication is that the massage should be performed by the parents or the person who is close to him. Shantal's massage should be done before meals or at least two hours after. It can be repeated two times a day: before breakfast and in the evening before the bath. Toddler should be completely naked, but in such a way that the child should not feel coldness. Massaging should be initiated only after establishing eye and emotional contact with the child. For the effects, the child should be in a very good mood and ready to cooperate [19].

Person who massages adopts a sitting position, preferably on the floor. Stimulation should be done with relaxing music. The area must be secured by waterproof backing, because as a result of the relaxation, a toddler repeatedly empties the bladder. The child should be placed in the supine position. The baby should be massaged with baby oil [15].

Stroking is the main technique of Shantal's massage. They are performed very gently and slowly while maintaining a steady tempo without taking your hands off the baby's body. All activities are performed in an appropriate order. The first is the chest, then shoulders, forearms, hands, abdomen, lower limbs, feet, back and face. Subsequently after turning the baby on the stomach and positioning the baby in the transverse direction to the legs, the back massage

is performed. Then again we return to the starting position and perform the massage face. At the end we carried out several loosening exercises – often crossing the center line of the body, of infants who have turned third month of life [20,21].

Shantal's massage is extremely delicate. For this reason, the massage can be used not only in healthy children, but also in sick children. The positive effect of massage has been shown on children with asthma, cerebral palsy, Down syndrome, attention deficit hyperactivity disorder – ADHD, autism, in children with fetal alcohol syndrome – FAS, also infected with HIV. In Shantal's massage technique does not play a significant role. The most important is the love which is passed in this way to the child by the mother or father [21].

## Summary

In newborns and infants skin is the most important organ that allows to receive stimuli from the world in which it lives and allows to react to them. Taking care of a skin in a proper way and providing essential touch stimuli for a child are important elements for the proper development of the child. Early experiences involving the attentive and sensitive touch during feeding, taking on hands, nursing or massaging greatly affect the normal development of physical, cognitive and also the condition of the immune system and hormone levels [22, 23].

## References

1. Złotek-Kopacz M., Krychowska-Ćwikła A. Realizacja pierwszego kontaktu matki z dzieckiem po porodzie fizjologicznym i cięciu cesarskim w Szpitalu św. Zofii w Warszawie. *Położna Nauka i Praktyka* 2012; 3: 32-38.
2. Salamończyk M., Łozińska-Czerniak A., Dmoch – Gajzlerska E. *Neonatologia. Praktyczne umiejętności w opiece nad noworodkiem*. Wydawnictwo Lekarskie PZWL; Warszawa 2014.
3. Baranowska B. Pierwszy kontakt po cięciu cesarskim. *Matka i dziecko. Magazyn Pielęgniarki i Położnej* 2012; 4: 30-31.

4. Augustyniak K. et al. Sposoby komunikacji matki i dziecka w okresie poporodowymna przykładzie oddziału położniczego. *Family Medicine and Primary Care Review* 2011; 13, 4: 673-677.
5. Nogajska A. Dotyk jak lekarstwo. *Dobra praktyka. Magazyn Pielęgniarki i Położnej* 2012; 6: 32-33.
6. Bajek A. et al. Kangurowanie – zalecany pierwszy bezpośredni kontakt ciała noworodka z ciałem matki. *Hygeia Public Health* 2014; 49, 3: 417-420.
7. Bajek A. et al. Znaczenie dotyku dla prawidłowego rozwoju kręgowców wyższych. *Hygeia Public Health* 2014; 49, 3: 421-424.
8. Agrawal P. Kangurowanie. Uzupełniająca metoda opieki nad wcześniakami. *Magazyn Pielęgniarki i Położnej* 2011; 4: 32-34.
9. Stodolak A., Fuglewicz A. Kontakt skóra do skóry i kangurowanie noworodków – chwilowa moda czy naukowo udowodniona metoda? *Perinatologia, Neonatologia i Ginekologia* 2012; 5, 1: 19-25.
10. Dobrowolska B. et al. Urzeczywistnianie „troski o człowieka” w życiu codziennym i praktyce zawodowej – doświadczenia studentów pielęgniarstwa. *Pielęgniarstwo i Zdrowie Publiczne* 2010; 120, 3: 243-246.
11. Agrawal P. Lekcja kangurowania. Opieka nad noworodkiem. *Magazyn Pielęgniarki i Położnej* 2011; 6: 28-29.
12. Bajek A. et al. Znaczenie dotyku dla prawidłowego rozwoju kręgowców wyższych. *Hygeia Public Health* 2014; 49, 3: 421-424.
13. Kirkilionis E. *Dobrze nosić*. Wyd. Mamania; Warszawa 2013.
14. Jedwabińska A. D. Zalety noszenia dziecka w chuście. *Rehabilitacja w Praktyce* 2011; 5: 84-87.
15. Połowczyk-Michalska M., Mojs E. Noszenie dziecka w chuście podstawą psychoruchowej stymulacji rozwoju. *Pielęgniarstwo Polskie* 2015; 1: 84-87.
16. Sendor M. *Noś swoje dziecko*. Wyd. Harmonia; Warszawa 2008.
17. Kaczara J. *Masaż niemowlęcia*. Wydawnictwo Astrum; Wrocław 2006.
18. Szulc A. *Dobry dotyk matki*. *Przyjaciel* 2007; 2: 8-10.
19. Paczkowska A., Szmalec J. Rola dotyku w rozwoju małego dziecka – masaż jako najstarsza i najdoskonalsza forma komunikowania się z dzieckiem. *Hygeia Public Health* 2014; 49, 1: 15-18.
20. Frączek M. Zastosowanie masażu Shantala we wczesnym wspomaganie rozwoju. *Rehabilitacja w Praktyce* 2015; 1: 60-63.
21. Michalczyk A, Chochowska M, Marcinkowski J. T. Ocena skuteczności stosowania Masażu Shantali u niemowląt. *Hygeia Public Health* 2014; 49, 3: 501-506.
22. Adamczyk K., Jurzak M. Pielęgnacja skóry noworodków i niemowląt. *Polish Journal of Cosmetology* 2011; 14,3: 147-151.
23. Sobieralska-Michalak K., Barecka-Bocchiola A. Rola dotyku w rozwoju dzieci przedwcześnie urodzonych. *Przegląd Pediatryczny* 2013; 43, 1: 35-39.