Southern Health Santé Sud

Skin-to-Skin Contact

Self-Learning Package

Picture courtesy of Shirley's daughter and granddaughter

Self-learning Package developed by Shirley Bezditny RN BN Staff Development

Skin-to-Skin Contact Post Delivery

Immediate mother-infant contact after birth is firmly established as an evidence-based practice that supports breastfeeding and the physical and developmental transition of the infant to extra-uterine life. The Baby friendly Initiative (BFI) lists this practice as a recommended standard of immediate post-delivery care.

Step 4 : "Integrated Ten Steps to Successful Breastfeeding"
Place babies in uninterrupted skin-to-skin contact with their mothers immediately following birth for at least an hour or until completion of first feeding or as long as the mother wishes: encourage mothers to recognize when their babies are ready to feed, offering help as needed.

Provide uninterrupted, unhurried skin-to-skin contact between every mother and unwrapped healthy baby. Start immediately, or as soon as possible in the first few minutes after birth. Arrange that this skin-to-skin contact continue for at least one hour after birth. A longer period of skin-to-skin contact is recommended if the baby has not suckled by one hour after birth.

Definition:
The phrase "skin-to-skin care" is used for term infants while the phase "kangaroo care" is preferred when addressing skin-to-skin care with premature babies (BCC 2010).

Skin-to-skin (STS) contact: the practice of placing the healthy infant prone on the mother's bare chest in the immediate post birth period and throughout postpartum hospitalization. STS contact occurs as soon as possible after birth regardless of choice of feeding method.

With skin-to-skin contact, the mother and the baby exchange sensory information that stimulates and elicits "baby" behaviour: rooting and searching the breast, staying calm, breathing more naturally, staying warm, maintaining his body temperature and maintaining his blood sugar. (*Importance of skin to skin contact by Jack Newman)*

Kangaroo Care (KC) /STS Neuroscience

Skin touch is pleasing skin touch; Pleasing touch stimulates c-afferent nerve responses that go straight to limbic brain and stimulate oxytocin release, cholescystokinin release, and start laying down memories of happiness, pleasure, contentment, and decrease cortisol release, so stress mechanism is lowered.

As soon as pleasing touch is felt, oxytocin is released in infant and maternal brain: Calm, connected, safe, not stressed⇨

- More stable heart rate , lower respiratory rate, lower blood pressure
- Brain deactivation (stays in low energy use mode so less oxygen is needed and fewer ketones picked up to maintain brain activity)
- Stabilizes blood sugar
- Decreased cortisols, no crying (watch 5 minute APGAR!)

- Improved sleep: Increases deep sleep patterns
- Improved feeding: scent of amniotic fluid on hands and cholecystokinin released
- Improved weight gain, less birth weight loss; oxytocin reduces stress and energy use.
- Improved warmth: oxytocin causes peripheral dilatation of blood vessels so receive maternal warmth and brain responds to warm signals for more oxytocin. – no hypothermia in STS
- Less pain due to oxytocin's ability to stimulate endogenous opioids in mother and baby—so use for heel sticks and shots (Vit. K)
- Promotes relaxation, well-being calm, happy memory
- Stops fear and anxiety
- Minimizes aggression
- Quiets the inflammatory response and decreases likelihood of seizures

Oxytocin effects of birth KC

- Oxytocin released in the first 3 hours persists for days (Gordon et.al 2010)
- Oxytocin released in the first 3 hours after birth predicts positive interactions at 1 year (Bystrova et al 2003)
- Oxytocin predicts disclosure and closeness at 16 years of age
- Fathers have oxytocin surges too and oxytocin increases sense of responsibility of infant.

Oxytocin is produced during birth, breastfeeding and through touch and sustained physical contact.

Benefits of STS for the Infant

Helps prevent hypothermia.

Peripheral circulation established more rapidly in STS

- Mother's breasts adjust in temperature to keep the infant in neutral thermal temperature

Stress related effects of birth on peripheral circulation are reversed more quickly

Helps to stabilize baby's heartbeat and breathing.

Assists with metabolic adaptation and blood glucose stabilization

Reduces crying thus reduces stress and energy use

Enables colonization of the baby's gut with the mother's normal body bacteria.

Facilitates bonding between the mother and baby, as the baby is alert in the first 1-2 hours. After 2-3 hours, it is common for babies to sleep for long periods of time.

STS facilitates breastfeeding ⇨Increased breastfeeding at day 3, 1 month, 3 months and 1 year

STS contact can comfort infants undergoing procedures; in turn this gives mother a caretaking role in the procedure and can increase her maternal confidence (reference: ABM Clinical Protocol #23)

Long Term Benefits

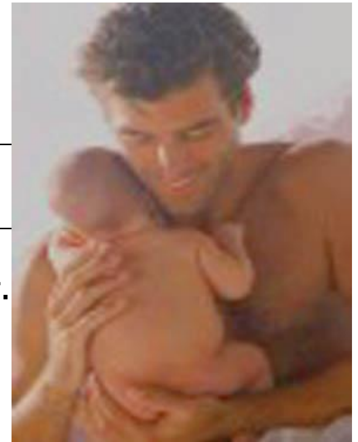
- Fewer infections at 6 & 12 months
- Less fussy/crying and more alert states
- Ahead in social, linguistic, fine/gross mother indices at 1 year of age. Improves brain maturation

Benefits for Mothers

Cascade of hormones are stimulated by STS

- Oxytocin and prolactin makes mom calmer and helps in production & transfer of breastmilk
- Oxytocin helps uterus to contract, resulting in less blood loss

Enhanced maternal-infant attachment & bonding
Increased maternal self-confidence and affectionate behaviour
Enhanced relaxation, Less anxiety
Less breast engorgement
More rapid involution (uterus returning to pre-pregnant size)
Less episiotomy pain
Prevents and decreases postpartum depression



Benefits for Fathers

STS can be done with the father as well as other significant other.

- Better interaction with infant
- Increased sense of responsibility to infant
- Increased attachment

Overcoming Barriers to early skin-to-skin contact

Many barriers to STS contact are related to common practices rather than to medical concern. Some changes to practices can facilitate STS contact.

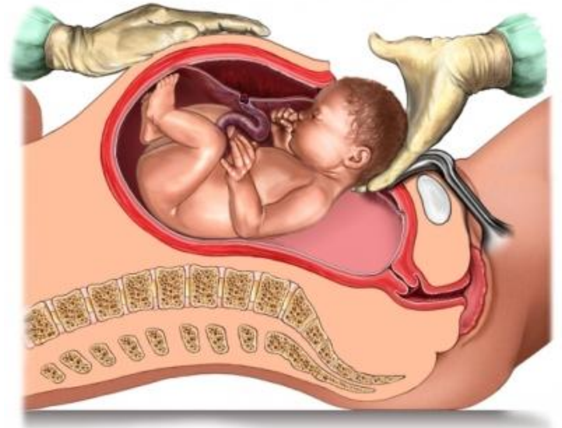
1. **Concern that the baby will get cold:** dry baby, place naked on chest, cover with warm blanket with head cap to reduce heat loss. Babies in STS have better temperature regulation than those under a warmer.
   Baby needs to be examined: most examinations can be done on the mother's chest where the infant is likely to be lying more quietly.
2. **Mother needs to get stitched:** STS↓ anxiety, opioid effect
3. **Baby needs to be bathed:** delaying the first bath allows for the vernix to soak into the baby's skin, lubricating and protecting it. Delaying bathing also prevents temperature loss. Baby can be wiped dry after birth.
4. **Baby is not alert:** If the baby is sleepy due to maternal medication it is even more important that the baby has contact as he/she needs extra support to bond and feed.
5. **Mother is tired**: A mother is rarely so tired that she does not want to hold her baby. Contact with her baby can help the mother to relax.
6. **Mother does not want to hold her baby**: If a mother is unwilling to hold her baby it may be an indication that she is depressed and at greater risk of abandonment, neglect or abuse of her baby. Encouraging contact is important as it may reduce the risk of harm to the baby.

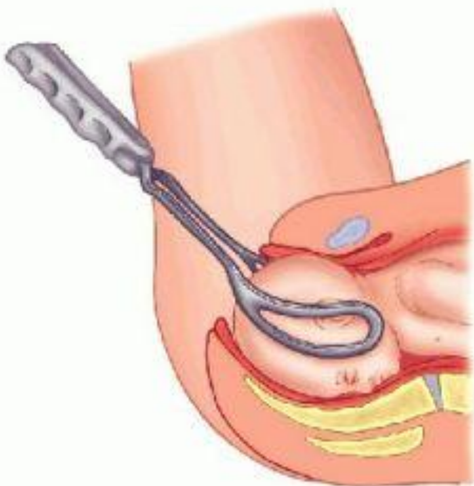
Innate Behaviours

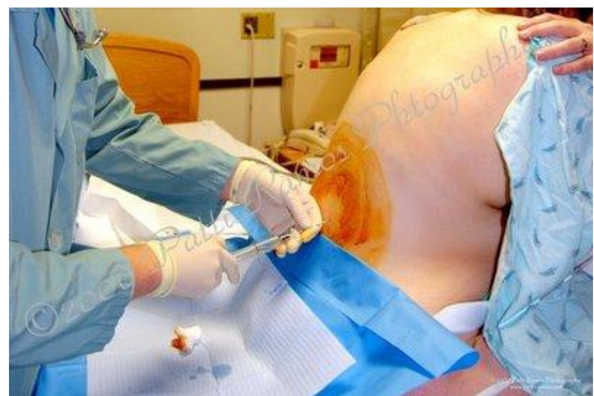
- Healthy term babies demonstrate set of behaviours immediately following birth when placed STS with their mothers.
- When left undisturbed in STS, newborns will display first clenching, hand to mouth movements, rooting, sucking and early latching on.
- Baby's senses are cued to the smell of amniotic fluid and smell of mother's breasts.
- Mother's voice and heartbeat will be familiar to infant from while in the womb.

What we do can disrupt/delay innate behaviours

- Separating from mother➔ decreases oxytocin release, stops search
- Gastric suctioning➔ stops search and suck
- C-Section➔ decrease oxytocin, delays BF and attachment
- Epidurals➔ blunts release of oxytocin so delay in innate behaviour
- Bottle or cup feeding➔ reduce oxytocin release.







Delaying Skin-to-skin

American Academy of Pediatrics (2009) www.aap.org/breastfeeding

"Healthy term newborns with no evidence of respiratory compromise will be placed and remain in direct skin-to-skin contact with their mothers immediately after delivery until the first feeding is accomplished, unless medically contraindicated.

Babies for whom an immediate pediatric assessment should take precedence over skin-to-skin contact include:

- those who are preterm (born before 37 weeks gestation),
- exhibit respiratory distress or cyanosis,
- have major congenital anomalies that might lead to cardio-respiratory compromise,
- are born through meconium-stained amniotic fluid and exhibit hypotonia or weak cry,
- are born in the context of markedly elevated infection risk (elevated maternal temperature, greater than 38 C),
- or have evidence of perinatal depression (eg. Decreased muscle tone, apneas, bradycardia)."

Skin-to-Skin and Initiating Breastfeeding

When the baby is on the mother's chest with skin-to-skin contact the breast odour will encourage the baby to move towards the nipple.

Encourage the mother to respond to the baby's signs of readiness to go to the breast. Help a mother to recognize the pre-feeding behaviors or cues. When a mother and baby are kept quietly in skin-to-skin contact, the baby typically works through a series of pre-feeding behaviors. This may be a few minutes or an hour or more.

- Pre-feeding behaviors of the baby include:
  - a short rest in an alert state to settle to the new surroundings;
  - Bringing his or her hands to his mouth, and making sucking motions; sounds and touching the nipple with the hand;
  - focusing on the dark area of the breast, which acts like a target;
  - Moving towards the breast and rooting;
  - Finding the nipple area and attaching with a wide open mouth.

There should be no pressure on the mother or baby regarding how soon the first feed takes place, how long a first feed lasts, how well attached the baby is or how much colostrum the baby takes.

- The first time of suckling at the breast should be considered an introduction to the breast rather than a feed.
- More assistance with breastfeeding can be provided at the next feed to help the mother learn about positioning, attachment, feeding signs and other skills she will need.

Staff role at this time:

- Provide time and calm atmosphere
- Help the mother into a comfortable position
- Point out positive behaviours of the baby such as alertness and rooting;
- Build the mother's confidence
- Avoid rushing the baby to the breast or pushing the breast into the baby's mouth.

Skin-to-skin care benefits all mothers and babies, regardless of their feeding method.

Documentation

Document start and completion of skin-to-skin contact as well as subsequent contact. Chart this on Infant Feeding Record/Newborn Caremap. Mother could also document on her feeding form and staff could transfer this information into the Feeding Record.

Note:

Provide the mother and significant other with the Skin-to-skin Handout prior to delivery to facilitate discussion. Ideally, this could be given after you have done your initial admission assessment. A copy of the handout is located further in this package.

Also refer to Susan Ludington's Skin-to-skin checklist for detailed step by step recommendation on doing skin-to-skin. This checklist is also located in this package.

Ways to Support STS & breastfeeding after a Caesarean Section

Encourage the mother to have STS contact as soon as possible.

- In general, mothers who have a spinal or epidural anesthesia are alert and able to respond to their baby immediately, similar to mothers who give birth vaginally.
- Following a general anesthetic, contact can occur when the mother is responsive, though she may still be sleepy.
- The father or other family member can give skin-to-skin contact which helps keep the baby warm and comforted while waiting for the mother to return from the OR.
- If contact is delayed, the baby should be wrapped in a way that facilitates unwrapping for STS contact later when the mother is responsive. (diaper, cap and wrapped in warm blankets).
- When baby shows signs of readiness to feed, need the presence of a support person to help the mother and baby.

Comfortable positions for breastfeeding after a C/S

Side-lying

Football hold:

Practice Guidelines for Skin-to-skin (STS)

1. Skin-to-skin contact between mothers and their healthy term infants is encouraged by nurses, midwives and physicians. Discuss STS with parents prior to delivery.

2. Skin-to-skin contact occurs as soon as possible after birth regardless of choice of feeding method.

3. The infant is placed prone between mother's breasts to maximize contact with the mother's skin surface and promote infant thermoregulation. The infant's head is covered by a cap to decrease heat loss; a diaper is optional in the immediate post-birth period. The infant is covered with a thick warm blanket.

4. Optimal time to establish skin-to-skin contact is within the first 30 minutes of birth.

5. Optimal duration of skin-to-skin contact is 60-90 minutes, or until first breastfeeding. This is best-practice for all infants, including those who will not be breastfed.

6. All mothers, including those who deliver by cesarean are encouraged to engage in this skin-to-skin contact in immediate post-birth period, as long as they and their infants are medically stable. Fathers are encouraged to engage in skin-to-skin contact until mother is able.

7. The infant is permitted to transition through pre-feeding behaviours in readiness to breastfeed; these include hand to mouth movements, licking, drooling, rooting and moving toward the breast.

8. Mothers are offered assistance with the first breastfeed if necessary; most infants will latch and breastfeed independently without assistance if permitted to do so.

9. Early newborn assessment, eye prophylaxis and Vitamin K injection occur during skin-to-skin contact. Other routine assessment occurs later in the postpartum period.

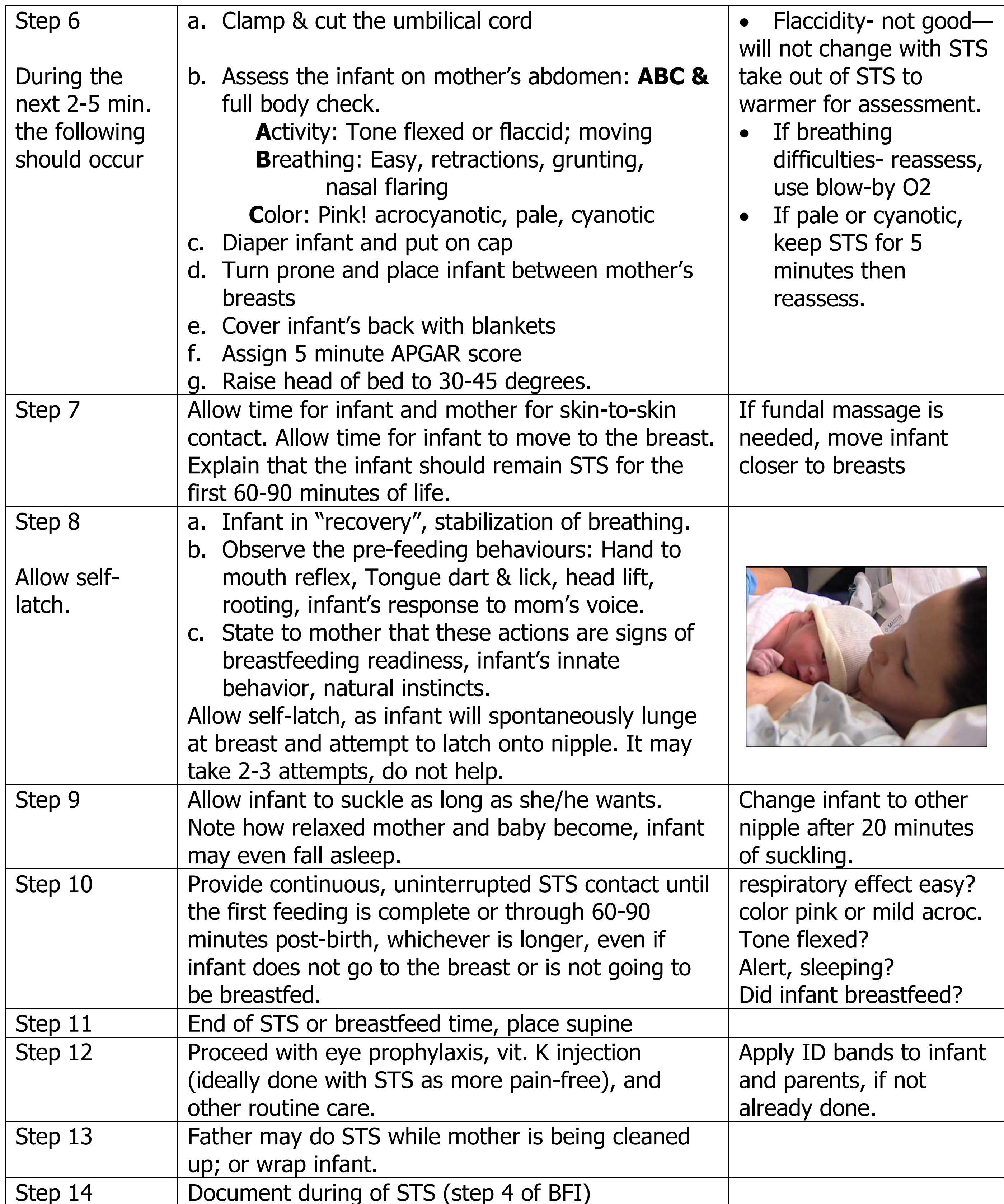
10. Mothers are encouraged to engage in 12 hours of skin-to-skin contact per day throughout postpartum hospitalization. This minimizes the over-stimulation of the newborn, decreases infant stress and promotes early frequent breastfeeding. If mothers fall asleep during skin-to-skin contact without a partner in attendance, the infant is gently placed in the bassinette to ensure infant safety.

11. Encourage each skin-to-skin encounter to last for 1 hour if possible. This permits the infant to cycle through one REM sleep cycle and optimizes the benefits of skin-to-skin contact.

12. Mothers are educated about the benefits of skin-to-skin contact in the post discharge period; evidence-based recommendations include skin-to-skin contact for 4 hours until the infant is 3 months old. (STS can be baby's check to mother's upper chest).

Skin-to-Skin Contact Checklist (reference: Dr. Susan Ludington 2010)

STEP	ACTION	Comments
Step 1	a. Inform parents and discuss process of STS during labor. b. All newborns are placed STS after birth. c. Let parents know the infant is likely to move toward the breast and latch on. d. STS important in initiation of bonding and attachment. e. STS will help the mother feel like a mother and initiate mothering behaviors. f. STS will help mother and newborn relax and ↓ the effects of labor.	
Step 2 &3 Just prior to the birth	Prepare mother to receive newborn in one of the following ways: • Remove bra if not already done • Pull gown up to level of breasts if gown on front • Place gown backwards so opens in front • If IV gown, open snaps Place warm receiving blanket or towel over mother's lower abdomen.	
Step 4 Immediately after birth	Immediately after birth have the MW/MD place the nude infant supine on the blanket/towel on the mother's abdomen so that the infant's head is at or below the mother's umbilicus **OR** the infant can be placed transverse across the lower abdomen. Head down/supine initially to assist in lung drainage (if time permits)	Until the cord is cut—about 2 minutes
Step 5 Within the first minute of life, the following should occur	a. As necessary, bulb suction the mouth, nose for mucous, avoid deep suctioning. b. Thoroughly dry the baby's head and body with warm blanket. c. Remove wet blanket and wipe mom's abdomen. d. Place a cap on head and warm blanket over the infant. e. Assign the 1 minute Apgar score	

Step 6 During the next 2-5 min. the following should occur	a. Clamp & cut the umbilical cord b. Assess the infant on mother's abdomen: **ABC &** full body check. **A**ctivity: Tone flexed or flaccid; moving **B**reathing: Easy, retractions, grunting, nasal flaring **C**olor: Pink! acrocyanotic, pale, cyanotic c. Diaper infant and put on cap d. Turn prone and place infant between mother's breasts e. Cover infant's back with blankets f. Assign 5 minute APGAR score g. Raise head of bed to 30-45 degrees.	• Flaccidity- not good—will not change with STS take out of STS to warmer for assessment. • If breathing difficulties- reassess, use blow-by O2 • If pale or cyanotic, keep STS for 5 minutes then reassess.
Step 7	Allow time for infant and mother for skin-to-skin contact. Allow time for infant to move to the breast. Explain that the infant should remain STS for the first 60-90 minutes of life.	If fundal massage is needed, move infant closer to breasts
Step 8 Allow self-latch.	a. Infant in "recovery", stabilization of breathing. b. Observe the pre-feeding behaviours: Hand to mouth reflex, Tongue dart & lick, head lift, rooting, infant's response to mom's voice. c. State to mother that these actions are signs of breastfeeding readiness, infant's innate behavior, natural instincts. Allow self-latch, as infant will spontaneously lunge at breast and attempt to latch onto nipple. It may take 2-3 attempts, do not help.	
Step 9	Allow infant to suckle as long as she/he wants. Note how relaxed mother and baby become, infant may even fall asleep.	Change infant to other nipple after 20 minutes of suckling.
Step 10	Provide continuous, uninterrupted STS contact until the first feeding is complete or through 60-90 minutes post-birth, whichever is longer, even if infant does not go to the breast or is not going to be breastfed.	respiratory effect easy? color pink or mild acroc. Tone flexed? Alert, sleeping? Did infant breastfeed?
Step 11	End of STS or breastfeed time, place supine	
Step 12	Proceed with eye prophylaxis, vit. K injection (ideally done with STS as more pain-free), and other routine care.	Apply ID bands to infant and parents, if not already done.
Step 13	Father may do STS while mother is being cleaned up; or wrap infant.	
Step 14	Document during of STS (step 4 of BFI)	

Skin-to-skin Information Handout

<u>Skin-to-skin" contact is for ALL babies!</u>

Right after birth, healthy term babies go through amazing changes. Holding baby skin to skin will help baby:

- Stay warmer
- Cry less
- Have better breathing
- Have better blood sugars
- Have less pain during needles and blood work
- Breastfeed sooner, longer and better

Skin to skin contact also helps mothers by:

- Reducing bleeding after birth
- Enhancing the bond between mothers and babies

The more time mother and baby spend together skin to skin the stronger the benefits. This is especially important in the first few days of life. We recommend holding baby skin to skin:

- for the first 60 to 90 minutes after birth, until the first breastfeed, if you are breastfeeding
- often in the first few days of life, when you are awake and rested
- for at least 1 hour each time.

You can also continue holding your baby skin to skin at home; baby's cheek and upper chest against mom's breast works well!

If mothers are not able to hold baby skin to skin, fathers and other family can help!

Remember: it is important to place baby on "back to sleep" when put in crib.

How to hold your baby skin to skin

- Immediately after baby's birth, the nurse will:
    - Dry baby
    - Put a hat on baby
    - Place baby between your breasts skin to skin
    - Cover baby with several layers of warm blankets

- While in hospital, when you are **awake** and rested:
    - Raise the head of your bed so that you can sit comfortably
    - Hold baby head up between your breasts so that **all** of baby's chest and tummy are against your skin (keep baby's head above breast level)
    - Place a hat on your baby
    - Cover baby with several layers of blanket (not on face or head)

Snuggle baby with baby's head tipped back slightly (helps breathing)

(Patient Information Sheet Courtesy of Women's Health Program December 2010)

Websites

ABM Clinical Protocol #23: Non-Pharmacologic Management of Procedure-Related Pain in the Breastfeeding Infant (2010). Academy of Breastfeeding Medicine http://www.bfmed.org/Media/Files/Protocols/Protocol%2023%20-%20Non-Pharmacologic%20Management%20of%20Procedure-Related%20Pain.pdf

ABM Clinical Protocol #5: Peripartum Breastfeeding Management for the Healthy Mother and Infant at Term. (2008) Academy of Breastfeeding Medicine. http://www.bfmed.org/Media/Files/Protocols/Protocol_5.pdf

Dr. Jack Newman: Breastfeeding- Starting Out Right; http://www.drjacknewman.com/pdfs/Breastfeeding-Starting%20out%20right--2008.pdf

Dr. Jack Newman: The Importance of Skin-to-skin Contact http://www.drjacknewman.com/pdfs/Skin%20to%20skin%20contact-2008.pdf

DVD available through Staff Development "Enhancing Baby's First Relationship: A Parent's Guide for Skin-to-Skin Contact with Their Infants" (2010).