

# Hold Your Prem

a workbook on skin-to-skin contact  
for parents of premature babies

This book is dedicated to our children, Rebecka, Simon and Emma, who give us our greatest joy! My husband and I have both had wonderful parents who gave us love, fun and a secure base of trust to build our lives. We have tried to do the same for our children.

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a workbook on skin-to-skin contact  
for parents of premature babies

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*with*

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## HOW TO USE THIS BOOK

### **This is a practical workbook**

It has been written to help Mums and Dads in the scary situation of expecting or having a premature baby (or just “prem”).

It gives key information needed to understand the prem and the NICU (the Neonatal Intensive Care Unit).

It describes practical steps and tasks that help parents be central in the team that is helping their prem.

This book is a tool to encourage and empower parents.

### **To Mum and Dad:**

This book is organised into chapters for you to look up easily. Though they have an order, you can read them in any order you like.

If your prem is already born, then the most important information you will find quickly and easily on **BLUE PAGES**. These are “front page summaries” of what you want to know, and you can start by reading only these.

You will then know where to look for more details, in the pages that follow.

Read the other sections as you need them.

If you are likely to have a premature baby, try to read this book before your baby is born. Getting the first hours of life right will help you and your prem.

This is a workbook, so you will see spaces where you can write things down. For example, your own prem’s details, treatment, and some of your own reactions. There are suggestions of things to do or observe. You will find this helpful in this difficult time. I encourage you specially to work through the chapter on “Emotions”. Seeing these things written down will help you face them. This is important for you to be able to better help your prem, and cope better for yourself!

Some information may seem new or surprising to you. Your NICU staff might also be surprised by what is here! However, every statement has firm scientific evidence behind it. A number inside brackets in the text, e.g. (2), refers to the “Fine Print Page” at the end of each chapter. This has comments by Dr Nils Bergman, and the scientific references. The fine print page is for you if you want more detail, but it is also addressed to your doctor or nurse who can look up the evidence for what is being said.

I welcome your feedback and suggestions to make this book more helpful.

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(February 2010)

## INTRODUCTION



Many parents come to me after a talk on prematurity and say

**“If only I’d known...I would have done things differently.”**

Any mother or father who has sat watching their little prem in an incubator struggling to breathe knows that feeling of utter helplessness and despair, and the agony of leaving their tiny baby so alone in hospital. But there is an alternative! It is “skin-to-skin contact”.

### HOLD YOUR PREM

This short book is for you parents who find yourselves in the scary, confusing situation of having a premature baby. Some babies may go to the Neonatal Intensive Care Unit (NICU) if they are sick or need special care. All of the information given is valid for these babies and their parents too.

There are thousands of parenting books in the bookstores. There is as much advice out there as there are women and grannies in the world! But almost all of the advice given is from the parents’ perspective! Yes, parents like to have their sleep and their “well-behaved baby” and will buy the books that promise them what they want. Unfortunately, this is very often not what the baby needs and wants.

**This is a baby-centred book, based on the baby’s basic biological needs, both physical and emotional. In particular, it speaks for the premature newborn, who cannot speak for herself.**

This is a workbook and has been written to help you to help your baby. It gives simple information and practical things that you can do to be central in the team that is helping your premature baby.

There are so many different terms: premature infant, baby, preemie, prem, etc; I will use the simplest, prem. I will also write as if the baby is a girl, as there are many cultures that do not value girls as highly as boys. Every baby is a gift!

Some information may seem new or surprising to you, but every statement has firm scientific evidence behind it. A number inside brackets in the text, e.g. (2) refers to the “Fine Print Page” with comments and references at the end of each chapter. The fine print page is for you if you want more detail, but it is addressed to your doctor or nurse who can look up the evidence for what is being said.

There are some strong statements in this book. It is not my intention to offend, but to challenge parents and staff members to consider the recent research showing what is best for the baby. All the evidence proves that the mother of the newborn is vitally important for her child’s optimal development.

I also do not mean to make you as parents feel guilty if you were not allowed to give the best care to your baby. I want you to have the evidence you need to empower you, and the tools to do all that you can to make up for your baby’s rough start. No-one else and no artificial incubator can provide anything like Mum’s best care. The prem’s own mother’s milk provides food specific to the baby’s needs. No artificial milk formula can ever come close!



### Personal testimony of a mother at International KMC Workshop

“The instinct of a mother to hold and care for her baby is primordial and primitive and an overwhelmingly powerful feeling.”

Jane Davis, Bogota, Dec 1998

It is natural to want to be with your baby.

It is right.

You, Mum, must trust your instinct of love and nurture.

The bond between the newborn child and mother is vital and forms the basis for all relationships later. Why has this changed so much lately? What will the impact of this be on the present and future generations?

**Humans are mammals. This means that they breastfeed their infants with their own milk.**

The fierceness with which she protects her young is the measure of how good an animal mother is. It is her natural maternal instinct and it is needed for the survival of her baby.

It will be your natural instinct to protect your baby too. But often in our technological age you as parents may feel paralysed and disempowered by the sight of all the machinery in a NICU. You may feel worry, fear, confusion and uncertainty. You may feel very vulnerable at this stage as you want the best for your baby and you may think that an incubator is what your baby needs. The machines may be needed but you are needed even more!

As a new parent of a prem, you need to know that you are not alone, that there are many other new parents who are feeling the same worry and trauma as you are (about one in 8 babies in the world is born prematurely). Each mother and father will have different feelings, each hospital and clinic situation will be different; each premature baby will have her own unique complications of being born too early.

The technology that we have in the modern world is amazing and wonderful, and your baby should have access to all the technology that she needs to survive. The younger she is, perhaps the more machinery is needed. But we also need to understand what modern neuroscience is proving time and again; what the prem baby needs most can best be provided by the mother.

This is written for all parents of all prems, whether in a high-tech NICU or places with less resources, because the babies' basic biological needs are the same. In places that do not have access to first world technology, giving skin-to-skin contact alone may save the baby's life (1). In a NICU where people have access to incubators and all of the machines needed, knowing this information will help them to give all of the technological support needed, but in the right place: on the mother's chest.

Interestingly many cases are recorded of very small babies who were not expected to survive who were put on their mothers' chest. These babies started to dramatically improve and even grew faster than the incubator babies! This convinced hospitals to do skin-to-skin contact. Susan Ludington-Hoe starts her book with one such example (2).

Parents may say that in their hospital doing skin-to-skin contact at birth is not possible, and that the doctors and nurses insist on "stabilising" the baby first. Firstly, there is no technical definition for what a "stable" baby is. Secondly, there is solid scientific evidence that shows that a baby becomes more stable more quickly on her mothers chest (3). You may need to challenge the systems and ask for your baby to get all the technical support she needs while she is on your chest.

**Never separate mother and baby.**

**This is the key to the best development for the premature baby.**

**The science behind this shows that:**

- 1. the mother provides all the sensory stimulation needed for the brain of the baby to grow;**
- 2. skin-to-skin contact is the best way to provide this ideal care.**

**Technology should be added; it is not a substitute for the mother.**

This book will help you understand the technology your baby needs and give you practical ways to help your prem's development so that later problems are reduced as far as possible.

If you are likely to have a premature baby, try to read this before your baby is born to get those first hours right. This will make things easier for you and your baby. If your baby is already in a NICU, you may not have much time; read the first page of each chapter. Read the other sections as you need them.

It is my hope and prayer that this information will lessen the stress of having a premature baby and that it will help you and your prem to cope better.

## THE FIRST FEW HOURS

- ▶ Skin-to-skin contact should start at birth, or as soon after that as possible.
- ▶ This is for all babies, and even more so for prems.
- ▶ This helps them stabilise their heart, breathing and temperature best.



Mum, ask for your naked baby to be put on your naked chest straight after delivery in the labour ward (4).

She can be dried off and both of you can be covered together. All the tests and assessments can be done while she is on your chest.



She should stay with you like that for at least the first hour; she should not be taken away or bathed during that time. It is very likely that your baby will smell and make her own way to your nipple and try to latch on (5). Encourage her. Your baby should not be suctioned at this time as it will disturb her suckling reflex (6).

**As your baby is born, she needs you, her mother.**

**You provide the sensations which make your baby feel safe; this in turn makes her stable.**

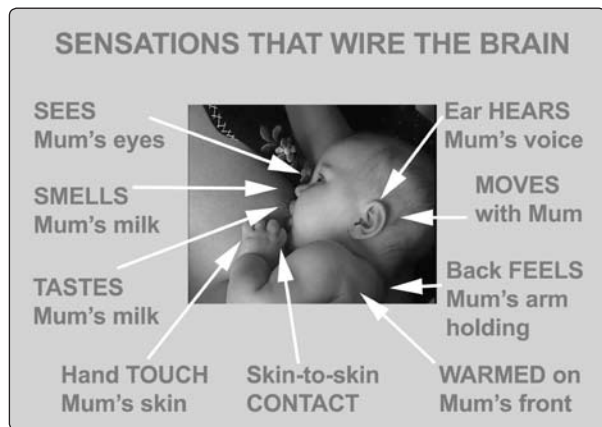
The brain of the baby is developing from very early in pregnancy. During the last third of the pregnancy, the brain development is huge. This usually happens inside the mother, and this is what the baby expects biologically. If your baby is born premature, this brain development will be occurring in the NICU which is NOT ideal, and we need to minimize the shock for her.

Skin-to-skin contact provides the biologically expected stimulation to wire the brain in the best way possible. The skin-to-skin contact between mum and baby is the way that the mother's 'autonomic nervous system' (ANS) tells the baby's ANS how to regulate.

The brain is stimulated by sensations. Sensations from the mother are good and reassuring. They make the brain develop. As time passes, new sensations stimulate new parts of the brain to connect. This brain-wiring depends on mother's presence. I shall explain this in detail in a later chapter.

### AT BIRTH YOUR BABY NEEDS and expects to

1. feel your skin against hers, keeping her warm and you holding her tight;
2. smell you (that is her first sense to develop);
3. hear your voice and heartbeat (she's heard them for months – both will soothe her);
4. see you! (she knows what a face is and looks for you);
5. taste your breast and later your milk.



The technology that separates a mum and her prem deprives the baby's brain of her basic needs.

An "incubator" is what is used to hatch chickens! The American name "Isolette" shows that the baby is isolated from her mum and dad. This is not a good thing – she needs you, her parents.

### Skin-to-skin contact with your baby

0–90 minutes after birth	is critical for her best brain development, physically and mentally.
0–6 hours after birth	will help her cardio-respiratory (heart and breathing) systems to stabilize, physically.
6–24 hours after birth	helps the baby to get into a stable feeding pattern and sleep cycling.
12 hours to 8 weeks after birth	is essential for attachment and bonding.

If you are reading this and your baby is already a few days old, you do not need to feel guilty; start skin-to-skin contact straight away to help you and your little one to bond closely and to help breastfeeding. She needs you to hold her close for weeks for her brain to grow properly. If you can only start this late, just continue longer!

### **As your baby is born**

Your baby has been born too early and she is called a premature baby (prem). She has had a rough start; her brain is not fully developed, her lungs may not be ready for breathing air, her sight and hearing are extra sensitive, and her skin is extra fragile.

As you look at her you may think that she is far too tiny and delicate to touch, and you may worry whether she will survive. She may need machines to help her breathing, tubes in her nose or mouth for feeding, and heel pricks for blood tests. Nothing “nice” has happened to your baby. The doctors and nurses will do all they can to help her fight for her life, but you need to know that she needs you, her mum and dad more than anything else in the world.

You may wish that it was different, but I want to encourage you by showing that there is so much that you can do in these first hours and days of her life that may even mean life or death for her. Most of all, it is the long-term quality of life which is at stake. Helping her to be close to you will give her good physical and mental health now and for her whole life.



Your baby has been safe inside you for months, held close, warm and safe, hearing your heart beat and your voice. Your body has given her everything that she needs. Now that she is out in the big wide world too early, your job is to carry on giving her everything that she needs. Yes, you still can! She may need machines, but here are some practical things that you can do.

#### **Practical:**

It is very important to know that your tiny baby is YOUR tiny baby and she needs you. She longs to be held in skin-to-skin contact (SSC), on your chest. This is her safe place. Ask the nurses to dry her gently and put her naked on your naked chest as she is born, and to cover both of you with a soft cloth and a blanket.

Your chest is the best place for your baby to adjust to life.

**On your chest: your baby will stay warmer and calmer,  
cry less, and  
have better blood sugars**

compared to being swaddled or put in a crib or an incubator (4).

Premature babies cannot control their own body temperature and they lose heat very quickly. Do not let her be taken and washed as this will make her temperature swing badly. The nurses and doctors can do all their tests while she is safely and peacefully on your chest. Your hands are there to help hold her still.

Separation from you will cause your baby stress; gently and firmly insist that she stays with you.



Ask that she is left on your chest for the first hour at least. Hold her as much as you can, for as long as you can. When she cries, the stress hormones in her body make her heart beat faster which sends more blood around the body. This uses up energy, and she needs all the energy she has to grow. If a tiny prem is stressed then her heart rate and blood pressure increases, this may cause the tiny blood vessels in the brain to burst (a brain bleed). Keep her calm in skin-to-skin contact to avoid this.

If your baby is extremely small, she may need CPAP, (continuous positive airways pressure) which is a way of providing extra pressure to each breath. If she is not managing on CPAP, she may need surfactant, or ventilation, and then the doctor may need to separate her from you. Your baby may also have medical conditions that require management that is not practical to do on your chest. When there are such good reasons for separating you and your baby, then you should agree, but you have the right to a proper explanation! You can then start working on a plan to get together again as soon as possible.

You may feel overwhelmed – that’s OK. It is a whole new role being a mother and it is a huge shock that your baby has been born early.

Skin-to-skin Contact (SSC), cuddling and bonding help you and your baby to relate to each other better. Snuggling at birth gives you and your baby the best start for breastfeeding, and helps longer-term breast feeding. These first few hours are important for “Self-Attachment”. This is when newborn babies crawl without help up the mother’s stomach to find and latch onto the breast. (Dr Righard has produced a video showing this (5)). This happens best in the first hour after birth when the baby is awake and alert. If you have not had a chance to do this with your prem baby, be encouraged that it can happen even days after birth. Putting your baby in skin-to-skin contact on your chest and leaving her next to the breast will help breastfeeding to start normally. This is discussed in more detail under breastfeeding. Attachment parenting is discussed in the chapter on the long-term benefits of skin-to-skin contact. SSC babies are cuddled more even a year later.

**Firm holding is what she needs now;** this is called “containment”. Feather-light touch or stroking will irritate her sensitive skin. Inside your womb she was held very tightly, so bend her legs up close to her body with her arms close to her chest. Keep her hands near her mouth as she has been comforting herself like this for months. It is called “self-soothing” and will help her to be more peaceful and less stressed.



If you have had a caesarean section, dad or a nurse can hold your prem on your chest. Some hospitals will encourage dad to hold her skin-to-skin contact on his chest inside his shirt. She will know his voice from the months inside you and it is a wonderful time for dad to bond with his baby and to feel that he can help as well. (A dad will also feel helpless and worried when their baby is born too early.) Remember that skin-to-skin contact means no bra for mum and no clothes on your prem except a tiny nappy and baby must be held under your shirt.

Now a wonderful thing can happen: your body will automatically warm up to warm your baby if she is cold and will cool down if your baby is hot!. Your body's biology is wonderful! Studies have shown that for twins, a mum's breasts can have different temperatures depending on what each twin needs (7). Your body will keep your baby's temperature more stable than an incubator can. (This automatic temperature change does not work as well for dads (8). There is more for dads in a later chapter.)

It is important that your prem does not get cold as she has a chemical called "surfactant" in her lungs which help her to breathe. If she gets cold, this chemical becomes more solid and she will struggle to breathe. (She may need to be given this chemical to help her lungs work properly.) All first aid courses speak of A, B and C: airway, breathing and circulation. Your baby will need the same checking as she is born. Your baby's tiny neck is not strong and her airway will need to be supported in the sniffing position to help her to breathe. As she has her first sleep she may need to be fixed onto your chest to stabilize her airway. She may need extra oxygen and she can get this through a tube while she is on your chest.

There are many reasons for premature births and your baby may need to be taken into the NICU. Try to be with her as much as possible and hold her skin-to-skin even with all the tubes and monitors attached.

Medical staff have traditionally stabilized babies in incubators and firmly believed in this method. But all studies have shown that skin-to-skin contact stabilizes heart rate and oxygen saturation of babies better and faster than in an incubator, even very small babies of 27 weeks gestation! (If the doctors and nurses are sceptical, leave all the monitors attached and your baby's stability will speak for itself (3) ).

Technical support can be added when your prem is in skin-to-skin contact. This may mean systems changes in your NICU – encourage the nurses and doctors to look at the references on the "fine print pages" (9;10).

### **Talk to your baby**

Ask for a chair to sit next to your baby so you can hold her and talk to her. You can still hold her skin-to-skin when she has oxygen and heart monitors – this will help her to stabilize. It will also help you to feel like her mum and dad and to love her. (Parents of prems have not had all the usual months to prepare mentally for being parents, and need time to realize that they are parents to their very tiny baby.)

**Your baby needs your breast milk to give her the antibodies she needs to protect her.** If you can, call in a lactation consultant or breastfeeding assistant to get your breast milk started. If you do want to breastfeed, start pumping straight away. You will have more success if you start within 6 hours of birth. Keeping your baby in skin-to-skin contact with her nuzzling your chest will help to produce prolactin, the hormone which makes the milk.

Your milk will not be the same as the milk for a full term baby. Your body knows that it needs to produce breast milk that will give your prem the proteins for brain growth that she would have been getting through the umbilical cord. If she is a very tiny prem she may not yet be strong enough to suckle from your breast, but she still needs breast milk. Express it and feed it to her through a tube in her nose or mouth that goes straight into her stomach. Feed her little amounts often as her stomach is so tiny. Express your milk more often and more milk will be produced. Even if there are only two drops of the early milk, colostrum, it will be enough to help her stomach to be healthy. Colostrum is called “white gold” because of all the antibodies which it contains to protect the tiny baby from germs. She does not need formula. Formula is milk designed for a baby cow and only has about 30 nutrients; your breast milk will give her the 1200 nutrients that a human baby needs for her brain to grow properly.

Sucking from a bottle is stressful and tiring for babies as they cannot breathe and suck from a bottle at the same time (11;12). Write on her card that you insist that she is not given a bottle. Feeding her your expressed milk in a tiny cup is better for her. Remember that your aim is to get her breastfeeding as soon as possible.

**Premature babies need breast milk even more than full term babies to help them to grow properly and for their brains to grow healthy. With support, prems can breastfeed at 28 weeks.**

So do not let the hospital say that your prem baby cannot breastfeed until she is 32 weeks gestation or a specific weight. Ask for a lactation consultant to help you. Pay for it if you need to; it is well worth it as your baby will have far fewer illness and allergy problems later in her life.

Your prem has been born too early and the first few hours may have been spent desperately trying to keep your tiny baby alive. Now she is breathing and her heart is working and breastfeeding has started. You and your baby should continue to be one unit as you have been for months.

### Now, what about you?

First, take a deep breath and be grateful!

Often, when the hours of crisis are over, the baby is more stable but you, her parents, are feeling completely exhausted. Now that your prem has settled, you may be struggling yourself.

Having a prem baby is a major life shock. Your emotions will feel upside down.

It is OK to cry; in fact tears bring healing, calmness and relief.

It has happened, and needs to be accepted. You as parents need to talk about it together and support each other.

### What do you do now?

It is time to take stock and find out what YOU as parents need.

Do you need more information on how to cope emotionally? You will find a chapter on this further on.

Maybe you want to find out more about the technology or medicines that your baby needs. Knowing more can make you feel less helpless and out of control. Ask the staff “what are these wires and tubes connected to my baby?” You can also start learning about the details of the technical support that prems may need (see the technology chapter). It is worth finding out as much as you can about your baby’s needs and the medicines and machines that are helping her. You will be part of the team, and not just a victim or bystander.

Have you given your baby a name? Often, parents are too scared to do this in case their baby does not survive. Your baby has been a person for months already inside you.. Give her a name, a name that you say softly to her whenever you spend time with her; her name that you say gently to comfort her. (You need to call her something as you speak to her ... perhaps you had a nickname for her while she was inside you ... maybe she even recognizes that for the time being!) Obviously this will depend on cultural and religious traditions.

Have you let your friends and family know of your baby’s birth? They are more likely to support you.

### FIRST DAY CHECKLIST:

Have you given your child a name? .....

Have you taken her picture? .....

(Remember not to use a flash when taking photographs as this will hurt your prem's fragile eyes.)

#### Your own baby's FACT SHEET

Mum's name .....

Dad's name .....

Baby's name .....

Birth date .....

Time of birth .....

Weight at birth .....

Length at birth .....

Place of birth .....

Ask the staff to write down your baby's diagnosis and medication that you want to understand better .....

.....  
.....

#### Baby's questions

How did you choose my name?

.....  
.....  
.....

When did you first hold me? .....

When was my first breastfeed? .....

Doctors and nurses who helped me: .....

.....  
.....  
.....

Use space below for handprint and footprint!

**Parents' questions about NICU**

- Does your hospital allow skin-to-skin contact at birth? .....
- Does your NICU encourage skin-to-skin contact – or insist on it? .....
- For full term babies? ..... For prems? .....
- Is there a place for you, her mum or dad to sit with your baby in skin-to-skin contact?
- Can parents sleep in the hospital if they have a prem baby? .....

## Fine Print Page - Introduction

This chapter summarises many things, and the fine print on them will be found in later chapters. For example, the statements about your baby's brain needs, and separation, will be discussed in the fine print page in the Neuroscience chapter. Just for starters, here are some annotations.

1. Without ventilators or incubators, but using mothers as incubators, survival improved from 10% to 50% in a study in Zimbabwe. Both authors were involved in developing the technique.
2. This "dying infant" went on to survive. Care should be taken not to instil false hope for such "miracles" – See Compassionate Care chapter. However, if the baby improves, it deserves full care.
3. In this randomized controlled trial, babies were between 1200g and 2200g. Those placed SSC from birth ALL stabilized after 6 hours, but only HALF those in incubators did so. The key is no separation, and starting from birth.
4. The research on self-attachment started in Sweden, where researchers were studying how much warmth and extra sugar newborn babies needed. They found that undrugged babies that were left on their mum's chest all crawled by themselves unaided to the breast and started breastfeeding. After one hour, they had higher blood sugars than those given glucose, and they were much warmer.
5. Dr Righard has produced a video of this work, available from [www.geddesproduction.com](http://www.geddesproduction.com) Dr Smillie has produced a video showing that this works days and weeks later, available same website.
6. Suctioning "seemed unpleasant" and caused retching, and delayed breastfeeding behaviour.
7. Susan Ludington has researched temperature effects on twins: "thermal synchrony" between mother and child ensures a very stable temperature, one degree higher than incubator.
8. Dads tend to increase baby's temperature, but not dangerously, as the baby self-regulates by wriggling to cooler spots or putting out an arm.
- 9-10. Here are detailed descriptions of techniques combining SSC and ventilation. Two of the most thorough covering many technical details are by Susan Ludington.
- 11-12. There is a general belief that bottle is less stressful than breast, but there is no evidence to support this. Paula Meier researched this in 32 week infants who were bottle and breastfeeding; babies had lower oxygen both during and after bottle-feeding. Mizuno studied the musculature and pressures during both, and politely notes them to be different !

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