Developmental advice for families of premature babies in the first six months
About this booklet

This booklet has been developed by neonatal physiotherapists from the Women’s and Children's Hospital, Lyell McEwin Health Service and Flinders Medical Centre in South Australia who work with premature babies and their families. It is a guide for parents of premature babies on the best ways of helping babies develop at home in the first six months.

Having a premature baby can be a stressful and frightening time for parents, especially in the early days or weeks while their baby may be in hospital. Once a baby becomes well enough and strong enough to leave hospital, there is the excitement and challenge of caring for baby at home. With the help of their parents, most premature babies will ‘catch up’ to full term babies in their development.

A wide range of developmental specialists were consulted in the preparation of this booklet including occupational, speech and infant mental health therapists, midwives, doctors and Kidsafe SA. We especially appreciate the input of many parents and families with premature babies who helped ensure the booklet answers the many question parents have, and provides practical advice on caring for premature babies. Many parents also kindly allowed us to photograph their babies to illustrate aspects of baby care. Funding support for the booklet was provided by a health promotion grant from the Women’s and Children’s Hospital Shops Auxiliary.

We trust that this booklet helps provide parents with confidence and knowledge for the next stage of the journey as they settle into their new life at home with their baby.
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Going Home... What Next?

Remember

> premature babies are likely to be different from full-term babies but with the help of their parents, most will catch up with their development.

Premature babies are special

Premature babies are babies born before 38 weeks gestation. They have not had as much time in the womb to develop as full-term babies. Instead of being curled up in the calm, protected womb they experience the lights, noises, and sensations of the hospital nursery environment.

How is my baby different?

When it’s time to go home, premature babies may look and behave differently to full-term babies especially if they are born before 32 weeks. They may:

> be smaller
> be floppy and have less curled up limbs
> be more jittery or jerky with their movements
> tire more easily
> dislike touch and movement
> be more unsettled and difficult to settle to sleep
> be slow or messy to feed, suffer from reflux or need tube feeds at home until their sucking grows stronger
> need to have oxygen at home due to ongoing breathing difficulties.

What can I do to help my baby?

It is important to keep a positive attitude. We know parents can make an enormous difference to their baby’s long term development. We hope that with this guide and with the support of your baby’s therapists, you will be able to do the best for your baby. Usually your baby will be offered regular appointments with his doctor or therapists. It is important to pick up any problems and get assistance for these as early as possible. Early help will improve your baby’s long-term development.

Developmental milestones

How old is my baby?

Your baby is lucky as he has two ‘birthdays’. He has:

> the actual day he was born, and
> his due date, the date he was meant to have been born.

When you look at your baby’s development it is important to take their prematurity into account. Often you will hear the term ‘corrected age’. Your baby’s corrected age is the age they would be today if they had been born on their due date.

This is the age we use when looking at how well your baby is growing and developing. So remembering your baby’s due date is helpful when working out the corrected age. We use the corrected age until your baby is around two to three years of age.
What should my baby be doing?

Milestones are the stages or skills that your baby reaches as he grows and develops. Sometimes your baby may not be reaching the milestones below, especially if he has ongoing medical issues such as needing oxygen, or being tube fed. Even babies born at full term will reach their milestones at different ages.

At around **1 to 2 months corrected age** your baby may:
> start to communicate with you by smiling, ‘talking’ and looking at your face very closely; a great reward after many sleepless nights!
> start to hold his head up for longer when you hold him upright
> prefer to look one way but should be able to turn his head equally to the right and left
> begin looking at things, especially your face.

At around **3 to 4 months corrected age** your baby may:
> start to laugh and follow objects and people with his eyes
> show excitement when something is about to happen
> enjoy babbling and making noises and ‘talking’ when you talk to him
> be able to push up with his arms, while lying on his tummy on the floor
> have a steady head and turn to look in all directions
> bring his hands together and not favour one hand more than the other
> grasp a rattle placed in his hand
> take his hands and toys to his mouth
> bring his feet together and tuck his legs up.

At around **6 months corrected age** your baby may:
> start to enjoy playing ‘peek-a-boo’
> sit for a few seconds leaning forward on his hands
> roll from his tummy to his back, and roll from his back to his tummy
> reach out easily for toys with either hand
> take weight through his legs with his heels down, and bounce up and down.

When should I seek help?

Seek help if he:
> is a poor feeder and feeds normally take a long time eg longer than 30 minutes
> remains floppy after 1-2 months corrected age
> feels stiff in his arms or legs or arches his body
> prefers his head turned to one side or if you have concerns about his head shape
> is not holding his head in the middle or bringing his hands together by 3 months corrected age
> moves one side of his body more than the other.

Remember

> the following developmental milestones are a guide only
> if your baby has not reached these milestones or you have concerns feel free to seek help and discuss it with your doctor, therapist or infant health nurse.

If your baby has any of these concerns it may not mean that they have a problem it is just important that he is checked by his doctor, therapist or infant health nurse.
**Communicating with your baby**
It takes time to get to know your baby’s signals and to recognise what your baby is trying to tell you. By responding to your baby’s messages, you will be better able to provide what she needs.

**What is my baby trying to tell me?**
When your baby is:
- **alert:** she may be telling you she is ready to play by looking at you, smiling and being bright-eyed
- **stressed and unable to cope with any more stimulation:** she may look away, grimace, yawn or cry
- **tired:** she may have jerky movements, yawn, cry, rub her eyes, or pull at her hair or ears.

If your baby is tired or stressed try calming her with a firm cuddle, massage, a gentle song, a soothing voice or a feed.

**How can I help my baby to learn to communicate?**
When you communicate with your baby:
- try to make eye contact
- give big smiles and be reassuring and encouraging
- talk or sing about what you are doing and copy her sounds and face movements so she learns to ‘talk’ to you
- give her plenty of time to react and respond
- give her a break if she looks tired or stressed
- try to avoid having too many distractions around.

**Massaging your baby**
**Should I massage my baby?**
Yes. The skin to skin touch of massage can help you get to know your baby and teach her about her own body. Firm strokes in particular can relax, calm and settle your baby.

**Tips when massaging your baby:**
- move slowly and gently
- watch for her reactions and see what she enjoys
- stop and try again later if she becomes stressed
- it can be enjoyed after a bath, feed, nappy change or playtime
- sing or recite nursery rhymes while massaging
- make sure the room is warm and has minimal distractions so that you and your baby are comfortable
- massage in a clockwise direction over her stomach if she suffers from wind pain or constipation
- use oil such as grape seed as this can make the massage smoother and more enjoyable but AVOID nut oils like peanut in case of allergy
- brief massages here and there throughout the day are great for your baby: they do not need to be long sessions
- stroking and rubbing are different ways to massage but see what style suits you and your baby best.

**Remember**
- spend time communicating with your baby while you do everyday things such as bathing, feeding or changing her nappies.
- talking, massages and cuddles can help you get to know your baby and help him to grow.
Closeness with your baby

Why are cuddles important?
Most babies enjoy being held and cuddled. Skin to skin cuddles are particularly good for your baby's development. When cuddling, help your baby to hold his head in the middle and tuck his hands and feet in towards the middle. This is called a ‘tuck’ carry.

You could cuddle your baby in your arms, have him lying on your lap facing you or wrapped chest to chest.

Cuddles will help your baby learn about his body, help him feel secure and may help him settle better. Some babies also enjoy being held close to mum or dad in a carrier, sling or snuggled in a wrap.

What about slings and carriers?
Baby slings or carriers can be used to carry your baby close to you if you prefer. They are not essential but can be a useful option. Carriers support your baby snuggled in front of you. Slings hold your baby across your body like a hammock.

Parents often find that carriers are better than slings for their premature babies as they keep them well supported and curled up. When your baby is small it is best to wrap him in a light muslin cloth so that his legs stay inside the sling rather than hanging out.

Moving and carrying your baby

Your baby can be carried in a variety of positions to help strengthen her muscles and encourage development. Sometimes carry your baby on her tummy. This will help her develop control of her head and back muscles.

Whenever you move your baby, help her to feel more secure and develop stronger muscles by:
> gently telling her before you start to move her what you are about to do
> holding her snugly to help stop any jerky movements
> using slow gentle movements and avoiding sudden rushed movements
> encouraging her to hold her head in the middle
> carrying her in a variety of positions during the daytime so she can learn to hold her head up when carried on her tummy or when held sitting up.
How should I pick up my baby and put him down?
Slowly roll her onto her side before picking her up. Slow gentle movements help your baby develop a steady head, learn about rolling and help stop jerky movements.

Put your baby down by lowering her onto her side first, and then gently roll her onto her back or front.

As she gets older she will hold her own head up better and start helping you to sit her up by pushing with her hands.

Playing with your baby

Why is play important?
Play is much more than just having fun. Through play your baby learns to:

- see, hear, smell, touch and explore lots of different things
- communicate with you and with others
- discover the world
- make things happen such as a noise or movement.

When is the best time to play?
Early in your baby’s life he may seem to do nothing but eat and sleep! This stage doesn’t last for long. Take the opportunity to play when he starts to stay awake for longer periods, or when he is more alert and looking around.

But remember:

- premature babies can get tired quickly so you may need to keep these play sessions short
- if he suffers from reflux he may not like lying flat or on his tummy on the floor
- sometimes just cuddling, looking at and talking to your baby is a lovely way to play
- your baby will tell you when he has had enough by looking away, arching, grimacing or crying
- try to make playing with your baby a part of everyday activities such as when changing nappies, dressing, bathing or while doing household jobs.

Remember
- the way you hold, move and position your baby can help her develop stronger muscles and learn how to move for herself.
Playtime positions for your baby

It is important to place your baby on the floor so she can learn bigger movements such as rolling, sitting and crawling. She will need to practise in different positions, such as on her back, sides and tummy.

How to help your baby when she is playing on her back

When your baby is lying on her back it can be difficult for her to hold her head in the middle to look at you or to lift her arms and legs against gravity and reach out for and touch things.

You can help by:
> supporting her head and arms with a small rolled-up towel, a peanut head support (sometimes provided by physiotherapists), or head snuggler available from baby shops
> supporting her whole body with a horseshoe play ring or rolls under shoulders and legs
> making sure toys are close enough so she can reach them with her hands or feet
> choosing brightly coloured toys that feel interesting, make a noise or flash
> giving her nappy-free time each day to allow her to kick her legs without restriction.

Why is side lying important?

Lying your baby on her side helps her to bring her hands and feet together to play and later will help her to roll.

You can help by:
> supporting her body with a rolled-up towel behind her
> placing toys within easy reach of her hands
> making sure her top leg is in front of her bottom leg.

Remember

When using any supports mentioned here:
> always stay with your baby
> never use horseshoe playrings, head supports, rolled up towels or any pillow for sleeping.
Why is tummy time important?

Spending time on her tummy in the early days is important to help your baby develop strength in her head, neck and arm muscles. Later this will help her to roll, crawl and sit. You can help by:

- starting tummy time with her lying over your shoulder or on your chest as here she will enjoy the vibration of your voice and feel the warmth of your skin
- carrying her over your arm
- as she gets older placing her over your legs when you sit on the floor, or over a rolled up towel or horseshoe play ring
- giving her short periods on the floor and increasing the time as she gets used to it
- keeping tummy time short if she is unhappy; you may start with just a few seconds
- encouraging and reassuring her with smiles, songs or massage
- avoiding placing your baby on her tummy soon after a feed
- showing her how to roll from her tummy onto her side and then onto her back if she seems to be 'stuck' or becoming frustrated.

Remember

- **always** stay with your baby while she is on her tummy
- **sleep baby on her back**, never on her tummy or side.

How can I help my baby learn to sit?

Sitting is important for your baby as she can learn more about the world from this position and once sitting can progress to crawling, standing and walking. You can help by:

- giving your baby some time, while well supported, in a rocker chair with things to look at and reach for
- using supports eg rolls, to help hold her head in the middle and make it easier to bring her hands and feet together
- as she gets stronger, sit her on your lap or on the floor. Initially your baby will need support around her upper chest and shoulders. As her balance improves you can hold her lower, around her waist
- later as she gets stronger in her back you can sit her on the floor between your legs or in a stable basket or box.
Feeding your baby

What should I expect with feeding patterns?
> Feeds should last no more than 20 to 30 minutes as both you and your baby will become tired and frustrated if you persist for longer. As he grows and becomes stronger, feed times should become shorter.
> Feeding on demand usually works best for babies.
> After the first few months, most babies need to feed 3 to 4 hourly during the day.
> Most babies will need to be fed during the night, usually reducing to one night feed by around 6 months of age.
> Your baby should use a regular sucking pattern and not get out of breath.

What problems with feeding might I expect?
Feeding is hard work for any baby but especially for premature babies who may have ongoing lung problems, reflux and reduced muscle strength and endurance. Premature babies can have difficulty staying awake, or they may become distracted and fussy when feeding.

How can I help my baby feed well?
Try to make feeding a calm, relaxed and enjoyable time for you and your baby. Don’t push him if he is upset, crying or too tired. Be aware of your own feelings as he will pick up on these.

Help your baby do his best by:
> Looking out for his feeding signals such as wriggling, restlessness, or finger sucking so you can begin feeding before he becomes upset.
> Supporting yourself well in a comfortable chair in a quiet area so you can be as relaxed as possible.
> Feeding him in a quiet place with few distractions.
> Supporting your feet which will raise your knees to help support him so your arms won’t get so tired.
> Supporting his head and ensure it is in line with his body and not twisted to one side.
> Positioning his chin tucked down a little: as a guide fit 2 fingers between his chin and chest.
> Holding his arms and legs gently curled up, if he is floppy he may feed better if wrapped.
> Watching him closely and watching for signs of discomfort, or the need for a break.
> If he falls asleep during a feed then stop and try to gently wake him by changing his nappy, using a damp cool flannel on his face, or tickling his feet before offering the rest of his feed.
> Allowing him 5 to 10 minutes to burp and rest during feeding.
> Feeding him in a more upright position if he has reflux.
> If he coughs or splutters sit him up and give him time to recover.

If he is breastfeeding, you can help by:
> Starting each breastfeed on the breast last fed from.
> Allowing him to empty the first breast before offering the second.
> Allowing top-up feeds after a breastfeed for the first days or weeks, as he grows bigger and stronger he won’t need these anymore.

If he is bottlefed, you can help by:
> Preparing the bottle before he gets upset.
> Ensuring the milk is warm.

How will I know when my baby has had enough to drink?
It can be worrying not knowing if he is drinking enough. He should have a wet nappy at each nappy change. Also have him weighed regularly to ensure he is feeding well and putting on weight.

When should I seek help with feeding my baby?
> If he is not putting on weight.
> When feeding time is stressful for either you or your baby.
> If he regularly coughs, splutters, chokes, changes colour (becomes dusky or very pale), vomits or he is having difficulty breathing.
> If feeds are taking a long time (more than 30 minutes).
Going Home... What Next?

Nappy changes

While changing your baby's nappy it is an ideal time to play and talk with her. Help her learn about her body, use her hands and feet, and hold her head in the middle by:

> bringing her hands and feet together while singing a simple song such as 'pat-a-cake'
> bringing her hands to her knees and feet, or even her feet towards her mouth
> 'cycling' her legs
> gently massaging her legs, feet, hands, arms and body
> tickling, brushing and stroking her skin with different materials, eg towel
> allowing nappy-free time so she can kick freely and play with her legs
> keeping your baby looking at you so her head is not flopped to one side. If your baby needs head support during nappy changes try a small rolled-up towel, a peanut head support (sometimes provided by physiotherapists), or head snuggler available from baby shops.

Bathing your baby

Bath time can be a fun time for your baby to move freely, grow stronger and learn about his body. A warm bath can be relaxing for your baby, especially if he has reflux or is very unsettled at times. To make bathing more enjoyable try:

> keeping your baby warm when he is in or out of the bath
> wrapping him in a muslin cloth if he doesn't like bathing or feels scared being undressed; then gently place him in the bath and slowly remove the wrap once he is relaxed
> keeping him covered with a flannel over his chest if he prefers as some babies are happier when covered
> gently swishing him from side to side while singing a simple song such as 'row, row, row your boat'
> having him push his feet off from the end of the bath
> lying him on his tummy in the bath; just make sure his head is well supported above the water
> lying him in the water on his side over your arm as this helps him bring his hands together and kick his legs.
Settling your baby to sleep

How long should my baby sleep?
Sleep is very important to help your baby's brain develop. In the first few months after going home babies usually sleep about 16 to 20 hours in every 24-hour period, some even longer!

How can I be sure my baby settles and sleeps well?
Premature babies may have difficulty learning to settle and sleep, especially at night. Your baby may take many weeks to develop a regular awake and sleep time. You can help by:

> encouraging play and stimulation during the day rather than at night
> having an evening routine such as a bath, followed by a feed, then a story or lullaby. Some babies prefer to feed on waking, others may play for a while then feed before settling down
> providing a night light or playing a radio softly as babies who have spent a lot of time in hospital often become used to the noise and light and find this comforting
> wrapping your baby in a thin cloth, such as muslin, with her arms and legs 'bent up' and her hands together. This reminds her of time curled in the womb and helps her feel secure. Avoid wrapping your baby with her legs straight as this is not good for her hip joints

If your baby suffers from reflux you can help by:

> holding her upright over your shoulder for a while before laying her in her cot
> raising the head end of the cot so your baby sleeps on a slight slope. Place something under the mattress to raise the head end slightly. Do not use a pillow on top of the mattress.

Remember
> if you are concerned that you or your baby aren't getting enough sleep then seek help from your doctor or child health nurse.

For safe sleeping always follow the SIDS and Kids guidelines:
> sleep your baby on her back, never on her tummy or side
> sleep your baby with her head and face uncovered
> do not use doonas, pillows, lambs wool, bumpers or soft toys in the cot
> do not expose your baby to cigarette smoke
> give your baby a safe sleeping environment (safe cot, mattress and bedding)
> sleep your baby in her own cot next to your bed for the first 6-12 months.

Equipment, toys and books for your baby

Are rocker chairs and play gyms useful?
Yes. Rocker chairs are very useful for helping your baby to learn to sit and play. Play gyms or A-frames provide colourful objects for your baby to look at, reach for and touch with his hands and feet.

There are many shops which sell reasonably priced, quality secondhand equipment and toys for babies. Look for them in the Yellow Pages or on the internet. Remember to look for the Australian Standards label, especially if you are buying second-hand goods.

Is there equipment I should avoid?
Yes. Kidsafe and the Australian Physiotherapy Association do not recommend baby walkers or jolly jumpers. They can:

> cause accidents and injuries
> delay your baby's crawling, sitting and walking
> encourage stiff standing and tip toe walking patterns.

Remember
> avoid using jolly jumpers and baby walkers.
What sorts of toys will help my baby?

Consider giving your baby toys that will help him learn rather than lots of soft toys. Toys don’t need to be expensive. Some home made toys are just as good if not better for your baby than expensive toys bought from shops. You may get some ideas from play groups. Ensure any toys you make are safe for your baby.

Choose toys that:
> are light and easy to hold, like rattles
> are safe to chew and suck on; make sure that bits won’t come off which could cause your baby to choke, and that materials are non toxic
> come in different shapes, sizes, textures (hard, scrunchy, soft, rough, smooth)
> make a noise when moved
> are bright, bold, shiny, and have contrasting colours, such as red, black, white and yellow
> can be dangled from an A-frame for your baby to swipe or kick at.

Remember
> you are your baby’s favourite toy
> young babies do not need a lot of toys.

Why read to my baby?

Books are a great way to entertain your baby. Reading to your baby is a great way to build a relationship with him.

What sort of books will help my baby?

Sharing books with your baby is a great way to entertain and have fun with him. It will help him to learn sounds which will later help him to talk and read. It will also teach him to recognise everyday objects. You can read with him when he is sitting on your lap or playing on the floor. So start reading early, as it will make a difference!

Choose books which have:
> simple clear words and have lots of rhythm, rhyme and repetition in them. Your baby will like to hear a variety of sounds and learn from you repeating things
> large bright pictures as babies like to look at contrasting, strong colours like black and white
> big, clear pictures of things he will begin to recognise, such as animals (so when he is older he can practise the sounds the animals make and point at them)
> tough pages made of cardboard or material so they last longer and are safer if he chews on them.

Remember
> it’s never too early to start reading to your baby.
Community contacts for families of premature infants

Austprem
Provides friendship, information and support for families on their journey with premature infants.
www.austprem.org.au

National Premmie Foundation
Provides a national 24-hour help and information line for families.
Phone 1300 (PREM BABY) 773 622
www.prembaby.org.au
Includes a link to www.lilaussieprems.com.au

Bliss
Provides information regarding premature infants from the United Kingdom.
www.bliss.org.uk

Premature Babies Play Group
Some hospitals provide play groups especially for premature babies. Ask at your local hospital.

Metropolitan hospital contacts
Women’s and Children’s Hospital
Phone 8161 7381
www.wch.sa.gov.au

Flinders Medical Centre
Phone 8204 5498
www.flinders.sa.gov.au

Lyell McEwin Hospital
Phone 8182 9288
www.lmh.sa.gov.au

Community contacts for families of all newborn infants

Parent Helpline
Provides 24-hour advice on all aspects of caring for babies and children.
Phone 1300 364 100

Child and Family Health Service
Provide home visits, health checks, parent groups, specialised support and resources. For an appointment at your nearest Child and Family Health Service site.
Phone 1300 733 606

Child and Youth Health website
Provides a wide range of information on parenting and your baby’s health and development.
www.cyh.com

Parenting SA website
Has information about parenting support groups and Parent Easy Guides on parenting topics.
www.parenting.sa.gov.au

Australian Breastfeeding Association Helpline
Provides 24 hour advice and support for breastfeeding mothers.
Phone 1800 mum 2 mum or 1800 686 2 686
www.breastfeeding.asn.au

Kidsafe SA
Provides safety information and products for infants.
Phone 8161 6318
www.kidsafesa.com.au

Local libraries
Many local libraries offer baby rhyme time sessions and story time sessions. Contact your local library for more information

Playgroup Association
Community based playgroups.
Phone 1800 171 882
www.playgroupaustralia.com.au

SIDS and Kids
Provides information on safe sleeping and the prevention of Sudden Infant Death Syndrome.
Phone 1300 308 307
www.sidsandkids.org

Toy Library Association
Provides a loan service for toys to families and advice about suitable and safe toys for different age groups (small joining fee applies).
Phone 8274 1983 for your local branch
Recommended resources

Breastfeeding Your Premature Baby, is available from the Australian Breastfeeding Association.
Phone 1800 mum 2 mum or 1800 686 2 686

Right from the Start, first reading book for babies is available from Parenting SA, Children, Youth and Women’s Health Service.
Phone 8303 1660

Settling Your Baby: A survival guide for parents (birth to 12 months), is available from Children, Youth and Women’s Health Service.
Phone 8303 1500

The Feeding Book (from breastfeeding to solids), is available from Children, Youth and Women’s Health Service.
Phone 8303 1500

Wrapping Babies, brochure available from the Allied Health Department WCH or SIDS and Kids SA.
Phone 8369 0155

My contacts

If you have any concerns about your baby it is important to seek help straight away.

Doctor......................................................................................... Phone...................................................................
Physiotherapist......................................................................... Phone...................................................................
Midwife/nurse........................................................................... Phone...................................................................
Speech Pathologist............................................................... Phone...................................................................
Occupational Therapist...................................................... Phone...................................................................
Other........................................................................................... Phone...................................................................
Thank you to our babies

Alexis
Joe
Tyrone

Carlin twin
Alice
Rutendo

Jackson
Leila
Niamh

Benjamin
Croser twin
Ethan

Amelia
Aysha
Tyrese
For more information

Allied Health
Women’s and Children’s Hospital
Ground Floor, Good Friday Building
72 King William Road
North Adelaide SA 5006
Telephone: 8161 7381

Non-English speaking: for information in languages other than English, call the Interpreting and Translating Centre and ask them to call the Department of Health. This service is available at no cost to you, contact (08) 8226 1990.

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