

## A Guide for Parents to Support Their Premature Babies' Development

### 23-25 weeks

- My skin is fragile and red looking, moisture is easily lost.
- I can't be dressed yet, so I lie in a warm humidified incubator, but I can hear and feel your touch.

**BRAIN** – My brain cells are present but the nerve connections between them are not made yet and the surface of my brain is smooth.

**HEARING** – I can react to different sounds but am disturbed by loud noises. I love to hear your familiar voices.

**VISION** – My eyes are fully formed but my eyelids are fused, though light still shines through them. Covering the incubator will protect me from noise and light but remember to keep a small flap open so you can still see me.

**HANDLING AND TOUCH** – My muscles are weak, though I could move freely in the womb now I am fighting against gravity, my movements are jerky, and I quickly become tired. I can feel you touching me, around my mouth is particularly sensitive. I am most comfortable if I am curled up and snuggled in a nest. Too much handling can cause me stress but by holding my hand or foot very still, I am comforted.

**FEEDING** – I can suck and swallow but as I am weak, I must have my feeds through tubes.

### 26-27 weeks

I have downy hair called lanugo on my body. My skin is fragile, I look very pink and see through, and moisture is easily lost from my body, so I still need to be kept warm in humid air in the incubator.

**BRAIN** – My brain is smooth and the blood vessels in my brain are delicate. Brain cells are in place ready to make connections.

**HEARING** – My hearing is developing now but I need protection from noise and need to have periods of quiet time. I react to different sounds, and I am disturbed by loud noises.

**VISION** – My eyes are still hazy, but you will notice eye movements in response to sounds.

**HANDLING AND TOUCH** – I prefer to be curled on my side as I was in the womb. If you touch my palm, I'll try and grasp your finger. My sleep patterns are irregular, I like containment holding rather than stroking as it makes me feel secure. If I am stable, I could have skin to skin with you (also known as Kangaroo care) which we would both enjoy.

**SMELL AND TASTE** – My taste buds are developing, and I can experience some flavours.

**FEEDING** – I haven't mastered the art of sucking, swallowing, and breathing yet so I still must be fed by tubes.

### **28-33 weeks**

I will be covered in a white creamy substance (called vernix) if I am born now. I am a little fatter and you can notice my fingernails. I may not need humidity now so I can be dressed, though I may be in an incubator.

**BRAIN** – My brain and nervous system is rapidly developing, and folds are forming. When I am in light sleep, I have rapid eye movements, which will help me to develop the cortex (surface) of my brain. By 32 weeks I can respond to pain, light and sound and I am also showing clear signs of deep sleep, which will help me to grow.

**HEARING** – My hearing is well developed, and I like listening to your voices. I am still sensitive to sound. I like to have quiet time during the day to rest and grow.

**VISION** – I like to peep at you, but my eyes are sensitive to light, I am able to open and close my eyes but I can't focus yet. At 32 weeks I will make efforts to fix on your face briefly.

**HANDLING AND TOUCH** – I need plenty of sleep, but I also like to be held with my legs supported, otherwise my legs will relax to either side like a 'frog'. My feet are very sensitive to touch. I like to be placed on my side so I can touch my face, which comforts me and feel my hands, which will help with my development. I also like to be cuddled and have skin to skin with my Mum or Dad (also known as Kangaroo care).

**SMELL AND TASTE** – My taste buds are still developing but if I have something sour like vitamins, I will pucker my lips. Mum, if you hold a soft cloth next to your skin and then place it close to me, when you are not there, I will be able to smell you and feel comforted.

**FEEDING AND BEHAVIOUR** – Around this time I develop reflexive responses such as rooting and grasping and by 32 weeks I can start to co-ordinate my sucking, breathing, and swallowing. My suck is too weak yet to take a full feed, but I can nuzzle at the breast and non-nutritive sucking on a dummy will help to develop my sucking ability.

### **34-36 weeks**

I am getting much fatter now. I may have a lot or a little hair on my head. I have defined fingernails, eyelashes and eyebrows and my toenails have now reached the toe tips. I may still be in an incubator, but I may be in a cot and getting ready for home.

**BRAIN** – My brain is rapidly growing. I can now start to block out noise and light, this is called habituation and shows I am maturing. My sleep and alertness are now well defined.

**HEARING** – I can recognise some familiar sounds and if I get upset, I maybe calmed down by soft speech. If there is a loud noise I will jump, I still enjoy quiet times.

**VISION** – I can see the shape of your faces now though it may be an effort to focus my gaze. By 36 weeks my pupils can react to light, so I like to experience day and night. Black and white visual patterns are too stimulating for me yet, so should be avoided.

**HANDLING AND TOUCH** – My muscle tone has improved, and I can turn my head from side to side with smoother more controlled movements. I would love to spend time interacting with you when I am awake. Beware if I am over stimulated, I can get hyper alert or can appear glazed and become sleepy. If I am given a few moments break, I will recover and may be able to continue. I would enjoy a bath occasionally now.

**SMELL AND TASTE** – I may wake up and root for my feeds now and enjoy some breast or bottle feeds. Avoid exposing me to strong perfumes or cigarette smoke as this is unpleasant and over stimulating for me.

**FEEDING AND BEHAVIOUR** – My suck, swallow and breathing co-ordination is continuing to mature.

### **37+ weeks**

I will be going home soon. I am fully grown now; I am fatter and the hair on my body has gone. My skin is pale pink and soft. I can tell you when I am hungry or tired.

**BRAIN** – My brain now has a folded surface and will continue to grow and develop, especially for first 1 or 2 years.

**HEARING** – I can recognise your lovely voices and all the tunes you played before I was born. I can still be easily overwhelmed by loud noises.

**VISION** – My vision is not fully developed but will develop rapidly in the first year. I can't focus very well yet, but I like light and dark contrast and curvy lines and faces, I like bright colours like red too. I do like to experience light as well as dark now.

**HANDLING AND TOUCH** – I need to be close to you now as my nervous system continues to develop. I like the familiar secure feeling of being cuddled and I like to be stroked. I have regular sleep patterns and will wake up for feeds.

**SMELL AND TASTE** – I can tell the difference between sweet and sour, preferring sweet. My head will turn towards the smell of milk.

**FEEDING AND BEHAVIOUR** – I have strong rooting and sucking patterns and breathing, sucking, and swallowing patterns are now smoother.

**PLAY** – I will be able to play with you soon. By 42 weeks I will start to imitate facial expressions and respond to smiles and by 47 weeks I will respond to an object such as a rattle or other suitable toy.

**This leaflet can be made available in different formats on request. If you would like to make any suggestions or comments about the content of this leaflet, then please contact the Patient Experience Team on 0151 702 4353 or by email at [pals@lwh.nhs.uk](mailto:pals@lwh.nhs.uk)**

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