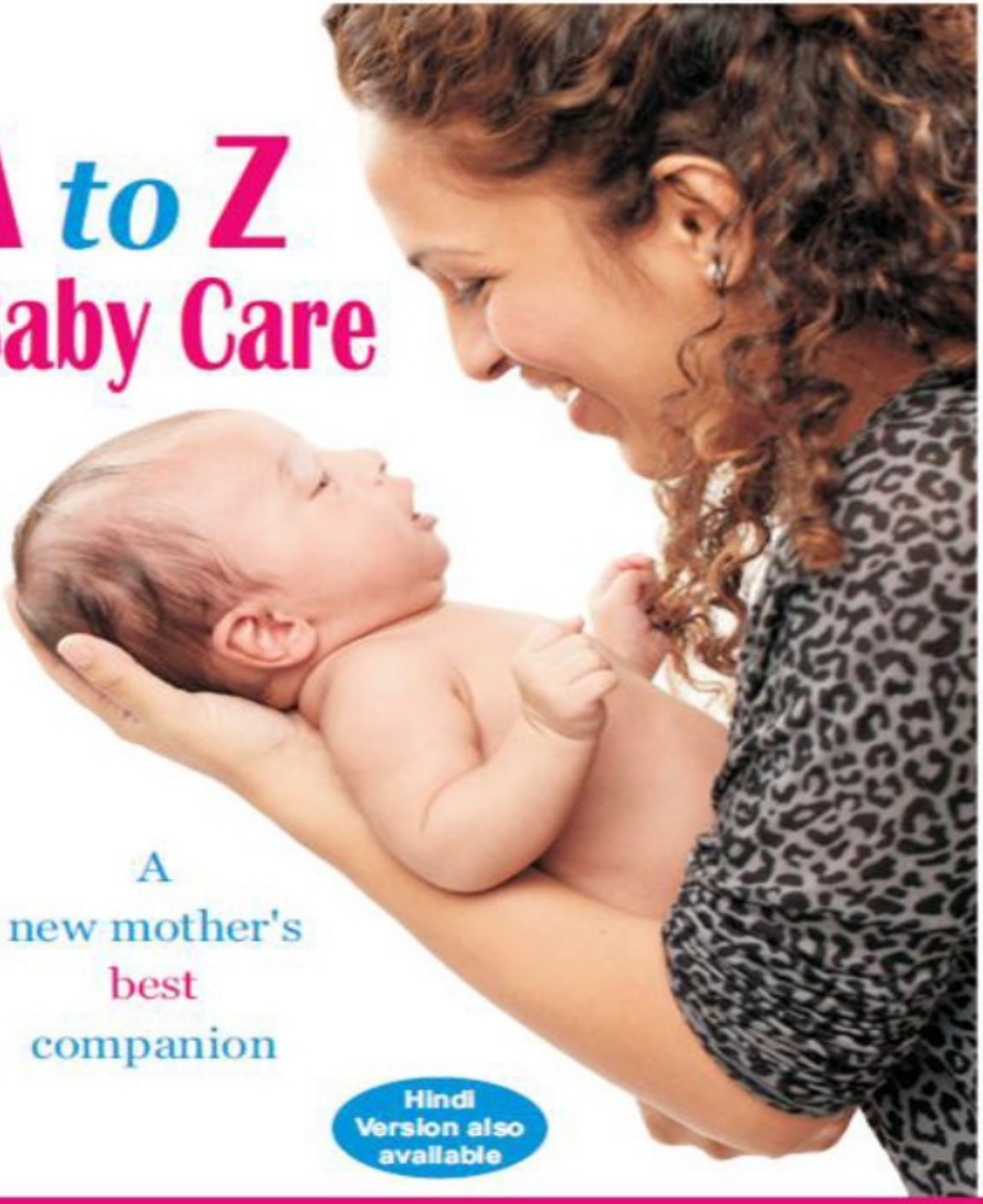
A to Z Baby Care



A new mother's best companion

Hindi Version also available

Dr. Mukul Tiwari

Foreword by National President Indian Academy of Pediatrics

A TO Z BABY CARE

A new mother's best companion

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MD, DCH, FIAP

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Dr. Mukul Tiwari
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This book
is dedicated to
babies
of
poor parents
who will never read
this book

Foreword

I was happily surprised when Dr Mukul Tiwari asked me to write foreword for this very useful book for the parents of the newborns.. The arrival of a baby brings great joy to the parents, but, at the same time, if they are not equipped with adequate knowledge of baby care, this experience can soon turn into a nightmare. In this book, Dr. Mukul Tiwari has addressed queries and doubts of new parents with scientific and research based answers. He provides clear instructions, from the preparatory stage, to guide parents through every step of baby care. I sincerely hope reading of this book will be a hugely rewarding experience for the new parents. I am very sure this book will grow exponentially over time and will help to transform lives of thousands of new mothers into a thoroughly happy and enjoyable one. With best wishes to the new parents.....

Dr. Anupam Sachdeva MD, DCH
National President, Indian Academy of Pediatrics
Director of Pediatric Hematology and Oncology
Sir Ganga Ram Hospital, New Delhi

Preface

I thought of writing this book when an expectant mother I met at a party, asked me to recommend a good baby care book to her, “in the Indian context”, she specified. I was at a loss for a suggestion. but made a mental note to look up. Subsequently, I went to the market and checked all the books available. Most of the books in the market were by western authors. The books were thick, costly, with lots of colourful photos but without much substance. Most of the books combined child care with baby care, which made them lengthy and never-ending. Since most of them were written by foreign authors, the foods and cultural preferences of Indian mothers were not taken into account. There was no good Indian book exclusively on baby care. It was then that I decided to write this book.

Being a newborn and child specialist was an advantage. I started recording the queries and doubts of new and expectant mothers. This gave me a profound insight into the subject and also helped me shape the contents of this book.

Due to the lack of social support in today’s society, most modern educated first time mothers feel “abandoned” and helpless when faced with the task of caring for their newborn. They all need a readymade set of scientific guidelines; an expert book, which tells them how to take care of their baby and what to do in different situations. I sincerely hope this book will serve that purpose comprehensively.

Dr. Mukul Tiwari
M.D., D.C.H., F.I.A.P.

Resources

Although, in a quest to give my readers the most updated knowledge and recommendations, I scoured hundreds of pages during the writing of this book, I am especially thankful to the following books, institutions and their websites which provided me with the major chunk of the information.....

1. World Alliance for Breastfeeding Action (WABA)
2. Nelson's Textbook of Pediatrics
3. National Neonatology Forum of India
4. Indian Academy of Pediatrics
5. American Academy of Pediatrics
6. Breastfeeding Promotion Network of India (BPNI)
7. Le Leche League International
8. The National Center for Biotechnology Information (Pubmed)
9. Manual of Neonatal Care by John P. Cloherty & others
10. Neonatology by Tricia Lacy Gomela.
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Chapter - 1

Preparing for Baby's Arrival

"There is only one pretty child in the world... and every mother has it."
- Chinese proverb.

Dear expectant mom; you had better go on a shopping tour well before your child arrives so you can choose things yourself rather than depending on others. The best time to do this is the seventh month. You can avoid buying what you already have; either from your previous child or gifts from relatives and friends. Prefer cotton clothes over synthetic once which can make the baby very uncomfortable.

Items you need to buy

- ✓ Frocks or jhablas, thin cotton with open front (for babies born in summer) – 6 pieces
- ✓ Cotton vests - 4 pieces
- ✓ Cloth diapers - 12 pieces
- ✓ Disposable diapers- any number, usually 4 packs at a time
- ✓ Fabric bibs - 4 pieces
- ✓ Scratch mittens - 2 pairs
- ✓ Mackintosh with attached towel - 4 pieces
- ✓ Big towels - 2 pieces
- ✓ Baby bath tub - 1
- ✓ Baby bed sheets and cover sheets - 6 each

Extra clothes for babies born in winter

- ✓ Frocks made of a heavier fabric, and closed front - 6 pieces
- ✓ Sweaters - 4 pieces
- ✓ Baby Gloves - 4 pieces
- ✓ Woollen socks - 4 pieces
- ✓ Stretch suits (preferably with hood) - 4 pieces
- ✓ Baby caps - 6 pieces
- ✓ Baby quilt and baby blanket - 4 in all

Other items

- ✓ Cotton: 1-2 packs of 500 grams each
- ✓ Alcohol: 2 bottles of 100 ml each
- ✓ Mosquito net: tent type
- ✓ Mosquito repellent: liquid type
- ✓ Babyscissors
- ✓ Babyhair brush
- ✓ Rattles and other musical plastic things which calm a crying baby

Additional items you may need

Moses basket

This item enables you to carry your baby when you move around the house, without disturbing her sleep.

Moses basket

Arm's reach baby crib

This type of crib is very convenient for both you and your baby. It is like an extension of your bed. Although the baby is right next to you and within arm's reach, in the strictest sense, she is not on your bed, hence giving both of you sufficient space and freedom of movements.

Arm's reach baby crib

Baby sling

This enables you to carry your baby comfortably with at least one hand free.

Baby sling

Baby car seat

This item is useful for safe car travel if you have to drive the car with the baby. Even if you are not driving the car and are sitting in the passenger seat, it allows you freedom of body and movements. Although baby car seats are used extensively in the developed world, Indian mothers are not making much use of this facility.

There are two kinds of infant car seats, infant car seats and convertible types. Infant seats are tiny and snug, and ideal ones for infants. These are rear facing, and are useful from birth to 12-15 months. Infant car seat is more appropriate and safe for small infants, compared to convertible, specially for Indian babies since they are generally on the smaller side (weight and size wise) compared to their western counterparts. Convertible car seats are used from birth until your child outgrows a car seat. They can be used in forward facing or in rear facing positions, depending on the weight of the child. But they are not as comfortable as infant car seats. These days you can buy the infant insert for the convertible car seat which makes than as comfortable as the infant seats.

Chapter - 2

Common Problems of the Newborn

“A baby is born with the need to be loved—and never outgrows it.”
~ Frank A. Clark

Dear new mother; in this chapter you will read about some common problems mothers face with a new baby. Read this chapter carefully……..

Frequency of motion

There are wide variations in the number of stools babies pass each day; from once in three days to up to ten times a day. Many breastfed newborns may pass stools up to ten times a day but they are otherwise healthy, happy and gain weight. On the other hand, babies who are on cow, buffalo or formula milk may be constipated or at least pass fewer number of stools than breast fed babies. Many breastfeeding mothers whose babies pass frequent stools mistakenly consider this as diarrhoea but this is, in fact, a very normal phenomenon and there is no reason to feel alarmed. Many babies pass stools as soon as they have consumed milk. Some mothers mistakenly think that the milk just consumed has been execreted. They are wrong; this is again a very normal phenomenon and is called a gastro-colic reflex. Sometimes, babies who pass motion frequently and are not cleaned properly develop redness around the anus. Clean the part well with a piece of wet cotton wool each time the baby passes stool and it will disappear gradually. If the problem persists, your paediatrician may prescribe some cream for it.

Although real diarrhoea is rarely a problem, it is potentially dangerous in infants. The major concern is rapid fluid loss, resulting in dehydration. You must contact a doctor if your baby shows the following symptoms :

- She is looking ill
- She is not gaining weight
- She is passing very little urine
- Her lips and tongue are dry
- Her skin is grey in colour
- Her breathing and pulse rate are rapid.
- Her eyes or anterior fontanel (the baby’s soft spot) look sunken.

Colour of the baby's stools

Sticky, blackish stools are seen during the first 48-72 hrs followed by a watery diarrhoea lasting for a day or two. This is known as transitional diarrhoea, which does not require any treatment. Later on, stools become green and then yellow in colour and pasty. If your baby does not pass stools within the first twenty-four hours, this is abnormal and you should contact a paediatrician. The baby will have to be investigated, to rule out a surgically correctable condition or thyroid deficiency.

Passing of the first urine

Almost all babies pass urine in the first twenty-four hours. If a baby does not pass urine within the first twenty-four hours inform your doctor. The lack of urination could be due to under feeding, kidney abnormalities or obstruction to the flow of urine. The first urine produced by a newborn is concentrated and often contains chemicals called urates, which can turn the diaper pink or orange.

The newborn's breathing

At times, parents become anxious when they see their newborn breathing irregularly, but this is normal. Newborn babies breathe in cycles, with breaths getting progressively faster and deeper, then slower and shallower. This is called periodic breathing. They may pause for a few seconds, and then start up again with deepening breaths. This pattern will change into a more mature pattern of breathing, with occasional sighs, in the first few months of life.

Babies also make many different noises when breathing, such as gurgling or snorting, because their nasal passages are small. These sounds are normal and will go away as your baby grows.

Watering and discharge from the eyes

In most cases, it is harmless and is due to a partial blockade of the tear duct (naso-lacrimal duct), which drains tears from the eyes into the nose. To remove the blockade, gently massage the sides of the nose a few times a day, bringing your finger from the medial aspect of the eye downwards towards the nostrils. You should learn this technique from a paediatrician. Your

paediatrician may also prescribe some antibiotic eye drops. Normally, the watering will stop in a few days or a few months. In most cases, regular massage ensures that the baby's eyes stop watering soon or within few months. If watering persists beyond six to nine months then an ophthalmologist might have to probing and syringing of the duct. If the discharge from the eyes is thick, and pus like, contact your paediatrician.

Baby's sleep

Many newborns will sleep during the day and keep awake at night, giving their parents sleepless nights. During the first few weeks of life, newborn babies sleep a lot, but not when we want them to. Most parents suffer from sleep deprivation and want to know when their baby will sleep through the night. The average baby will sleep through the night at six or seven weeks of age. Some babies may not sleep through the night until they are three or four months old and others may manage this at two or three weeks.

The reason why babies have trouble sleeping through the night is because they don't know the difference between day and night. But you can try to teach your baby that nighttime is sleep time. At night when a mother is feeding her baby, she should make it a quiet, non-stimulating and short feeding period and then put the baby back to bed in a quiet and dark place. In the daytime, let your baby take a daytime nap in a well-lit room where the baby can hear the noises of the day. Also, when you are feeding the baby in the daytime, you should make it more stimulating, to give the child the cue to wake during the day and sleep at night.

Crying

Crying in newborns does not produce tears until the end of the first month or two. Crying is the manner in which babies communicate. They may cry because they are hungry; wet and uncomfortable due to urine and potty; or

suffering from gas formation, changes in the environment, frustration, fatigue and even loneliness. Sometimes, cries can easily be answered with feeding or a diaper change. often, it remains a mystery and stops as quickly as it begins.

You will soon learn differences in cries, from a cry of “I’m hungry” to “I’m in pain” or “I’ve been over-stimulated.” It is important to respond to your baby’s cries. Contrary to old wives’ tales, young babies cannot be spoiled by being picked up when crying. Being held is reassuring and comforting when a baby has no other means of self-expression. Some techniques to help console a crying baby include the following:

- Take care of physical problems first - hunger, colic, diaper change and the need to burp.
- Walk with the baby in a sling or in a stroller.
- Rock your baby in a rhythmic, gentle motion.
- Try a baby swing or rocking cradle.
- Gently pat or stroke on the back or chest.
- Try swaddling the baby.

Vomiting

This is a common problem among newborns. Most newborn babies vomit a part of the milk they have consumed but continue to gain weight and remain healthy. Medically it is known as regurgitation (possetting). In young infants the one way valve, which separates the food pipe from the oesophagus, is rather weak and allows a two way passage. As time passes, the valve becomes stronger and the problem decreases. Often the vomiting is due to faulty feeding techniques leading to the baby swallowing air. The newborn should be burped after feeding, to reduce this problem. To learn the right technique of burping please read chapter 9. Hold the newborn upright, supporting the baby on your shoulder and stroke his back, till he makes a

belching sound. Consult a paediatrician if the vomiting is heavy, the baby stops gaining weight, develops dehydration or vomits green-coloured liquid. Your baby may suffer from a serious underlying medical condition, such as a metabolic disorder, pyloric stenosis or intestinal obstruction.

FEVER

Fever is a common problem in newborns because they lack the ability to control their body temperature efficiently. In other words their thermostat does not work as well as it does in adults. As an adult, you shiver when you are cold and your body temperature rises. You sweat when you are hot and your body cools. These mechanisms are not completely developed in newborns. In addition, newborns lack the insulating layer of fat that older babies and children have. Babies may or may not develop fever when suffering from sepsis (infection) because of their immature thermo regulating mechanisms. On the other hand, fever may develop due to dehydration and over warming. Whatever the cause, you must consult your doctor if your baby has fever.

Causes of fever in newborns

Dehydration

In hot months, especially if the child has been delivered after a caesarean, some babies may develop fever without signs of any other problem. Baby passes less urine but looks alert otherwise. The fever subsides in a day or two. To prevent this problem frequent breast feeding should be encouraged.

Sepsis/Infection

Infection or sepsis in a newborn may lead to fever. The newborn child will exhibit other features as well - dullness, lethargy, poor feeding and infrequent urination. But fever is not a rule and some newborns, especially preterm babies, may have a lower body temperature (hypothermia).

Over warming

While it is important to keep the baby from becoming cold, it is equally

important not to put too many covers or too much clothing on the baby which may raise the baby's temperature. Do not put the baby in or near a hot place - near a heater, a heat vent, in a heated car or in direct sunlight on summer days. If the baby has been accidentally overheated, shift her promptly to a cool place and remove her covers and clothing till her temperature comes back to normal.

How to measure your baby's temperature?

You must keep a thermometer at home. It should be either a digital or infrared type. Glass thermometers containing mercury are not recommended because these are breakable and contain mercury, a toxic substance, although their use is prevalent in Indian homes. Infrared ear thermometers, also known as tympanic thermometers, are one of the newest kinds of thermometers available. Consisting of a processing unit with a probe tip at one end, these devices sense the infrared energy coming from the tympanic membrane and surrounding ear canal and display it as temperature. They are generally accurate, quick and safe to use. However, they're a little trickier to use than other digital thermometers. If you don't insert the ear thermometer in a proper way, it can be hard to get an accurate, consistent reading. Another downside is that ear thermometers aren't recommended for babies younger than three months because their narrow ear canals make it hard to insert the sensor properly. There are digital strip types, which are applied on the baby's forehead, pacifier thermometers and temporal artery thermometers, which are not so reliable.

Whichever model you buy, be sure to check its accuracy before use on the baby, because many thermometers turn out to be inaccurate. Do not go for the cheapest model available in the medical store.

Measuring baby's temperature

If you are using a digital thermometer, you should measure the baby's temperature from her armpits. Although taking the temperature from the baby's anal canal is scientifically the most accurate method, only trained medical personnel should do it. You should not attempt it because this procedure can be dangerous for the baby if carried out by someone without training. To measure temperature from her armpits,

Digital thermometer

Ear thermometer

- Wipe the thermometer clean
- Turn on the thermometer
- Put the thermometer in her armpit, ensuring that her skin is dry, the instrument is well nestled in the pit and in contact with the skin. To ensure this, press the shoulder of the baby towards the chest wall. Make sure no clothes come in between.
- Take out the thermometer when you hear a beep.
- Add one degree to the reading you have recorded and you get your baby's temperature.

If you are taking a reading with a digital ear thermometer, put the device in your baby's ear and wait for the beep. It gives a reading after a few seconds. It is quick and accurate, but expensive. The ear thermometer produces an instant, accurate reading to within 0.1 degree C on a LCD display.

Taking a baby's temperature can be tricky; because the baby will squirm and resist you, but after a few attempts you can master the technique. Try the procedure on yourself or other family members. You should master this technique because mothers need to know if their baby has fever on many occasions in the first year. A faulty recording is fraught with many hazards. You could cause unnecessary panic in the family by declaring your baby has fever when she really has none or not know when she really has fever.

What medicine should be given if the baby has fever?

For newborn babies and infants, paracetamol (also known as Acetaminophen) is the most suitable and the safest drug. It is available as drops, syrup and

tablets for children. The duration of action is rather short so it can be repeated every four to six hours.

What should be done if the fever does not come down despite medication?

It may so happen that you have given paracetamol an hour ago but the fever does not seem to come down. In that case you must sponge the baby for some time, taking the following precautions:

- ✓ Do not sponge the baby if she is shivering. Sponging at this stage may distress the baby further.
- ✓ Use tepid (mildly warm water) and not cold water. Cold water may increase the baby's distress if she is shivering and will not bring the temperature down. The blood vessels in the skin will shrink due to the cold and there will be no loss of heat.
- ✓ Take off all the baby's clothes when sponging her.
- ✓ Sponge the whole body, not just the forehead and exposed parts, which is the more common practice. Some mothers just put a wet cloth on the forehead (they have seen this in Hindi films) and do not sponge the rest of the body.
- ✓ Sponge the baby three or four times in a few minutes. Sponging, coupled with the effect of the medicine, should bring down the fever effectively.

What if there is no medicine at home?

If you do not have any medicine for fever, sponge the baby as first aid and try to get medicine in the meanwhile. If it is night and medicine cannot be procured, then continue with sponging off and on.

CONSTIPATION

A constipated baby does not pass stools daily and when she does, the stools are hard and painful to pass. The baby cries in pain and the stools may be blood- streaked. A baby who is passing soft motions comfortably once in three or four days is not constipated.

Why is your baby constipated?

Constipation is common in babies who are given cow, buffalo or formula milk. Breastfed babies normally do not get constipation because breast milk is easily digested by the baby. Breastfed babies have, in their large intestine, many bacteria, which help in digestion of milk. Breastfed babies have higher levels of Motiline, a hormone that increases the movements of the intestine.

In rare cases, constipation in a baby can indicate some serious underlying disease, such as an abnormal nerve pattern in parts of the intestine, abnormalities of the spinal cord, thyroid deficiency, mental retardation and certain metabolic disorders. If your baby isn't gaining weight or shows any other unusual symptoms, seek the advice of a doctor.

Why is it important to treat constipation?

When a baby is constipated, she withholds stools because dry, hard stools hurt her anal opening during passage. So the food stays longer in the large intestine and stools become even harder. Repeated passage of hard stools tears the anal opening resulting in fissures that may pain and bleed every time the baby passes hard stools. So the baby tries to hold the stools longer, thus perpetuating constipation.

What can you do to treat constipation?

- Massage your baby's abdomen, from the belly button outwards in circles in a clockwise direction. Do it only if the baby seems to be enjoying it and is comfortable.
- Put your baby on his back and move her legs in a cycling motion. This will exercise her abdominal muscles, which in turn will put pressure on her intestines.
- Put your baby in a shallow tub filled with water for a few minutes. This will relax her anal muscles so she can pass stools more easily.
- If she is on formula milk, ensure you are not making it too thick. Read the instructions on the can carefully and follow them. If she is on buffalo milk mix one part of water to three parts of milk.
- From time to time, and after consultation with your doctor, use Glycerin baby suppositories. You should master the technique before using one.

Make sure the suppository is firm in consistency. Insert the pointed end first. Babies tend to push out suppositories, so push deep enough and then hold her hips together for some time for it to dissolve.

What should you not do?

Don't put a thermometer or a finger or anything else inside your baby's anal canal to stimulate bowel movements, because this may cause pain and injury to her. Don't make a habit of using suppositories on a daily basis. They are sometimes necessary as a 'rescue therapy' if your child hasn't had a bowel movement in a few days, but if you need to use them regularly, then you need to see a doctor.

Preventing constipation

Once your baby is between four to six months old, you can start introducing porridge, fruit and vegetable purées into her diet.

These are rich in fibre and will help prevent constipation. Give plenty of water and fruit juices to your baby.

What if constipation continues?

If your efforts fail to help the baby, contact a paediatrician. He will find out what is wrong with your baby and how to give relief to the little one. He may prescribe laxatives suitable for babies. He may also order some tests to see if there is any underlying disease responsible for the problem. He may refer your baby to a paediatric surgeon.

Jaundice

Jaundice is commonly seen in the newborns. Over seventy percent of normal newborns develop mild to moderate jaundice on the second or third day of life, which disappears by the fourteenth day. This is known as physiological jaundice and is the most common cause of jaundice in the newborn. This type of jaundice is caused by an increase in the red blood cell mass and immaturity of liver enzymes. If jaundice appears within the first twenty-four hours of life or persists beyond fourteen days, its cause should be investigated and treatment provided. Mild jaundice will settle down by itself. Exposure to

sunshine has no added benefit but it does help the parents psychologically. Jaundice, when it is increased beyond a certain level, can be effectively treated by phototherapy in most cases. Very few cases (mostly where the mother is Rh negative and the child is Rh positive or where ABO blood group incompatibility exists) require exchange blood transfusion; a procedure where the baby's blood is taken out and donated blood is transfused to the baby at the same time. If your baby appears yellowish, you must consult a paediatrician.

A jaundiced baby

Nose block

Most newborns suffer from a blocked nose. It is most troublesome in the late night and early morning hours. Newborns with a blocked nose find it difficult to breastfeed and sleep peacefully. While breastfeeding, they will suckle "off and on" which means they will suckle for some time and then leave the mother's breast to suckle again. Most useful measure is to instill saline drops as often as required but especially before breast feeding and before sleeping. If you want to clean secretions in the nose, don't use a cotton bud, as this may cause trauma. Use saline drops instead. After putting the drops, you may use a mucus aspirator to clean the nose. This problem should gradually resolve as the baby grows.

Cord care

Your baby's umbilical cord stump will change its colour from yellowish to brown as it dries and will fall off normally within ten to twelve days after birth. In the meantime, keep the stump clean and dry. Parents were earlier instructed to clean the stump and its base with alcohol. Doctors now recommend that it should be left alone. If the stump becomes dirty or sticky,

clean it with clean water. Expose the stump and its base to air to keep both dry. Keep the front of your baby's diaper folded down to avoid covering the stump. In warm weather, dress your baby in a diaper and T-shirt to improve air circulation. Give your baby sponge baths until the cord stump remains. You can give her a tub bath after the stump has fallen. Do not pull off the stump even if it's hanging on by a thread. It is normal to see a little crust or dried blood near the stump; it can be cleaned with surgical spirit.

Sometimes the discharge is yellowish and smelly and there may be redness around the umbilicus. This indicates an umbilical infection known as Omphalitis and may, at times, lead to a fairly serious blood infection. Clean the cord with spirit and discuss the problem with your paediatrician.

Sometimes the umbilical tip looks wet, and there is oozing from it. This is an umbilical granuloma. It has to be differentiated from an umbilical polyp, which needs to be excised by a surgeon.

Gaps in the centre of the head (soft spots)

Some mothers are alarmed by the presence of softness or a gap in the bones anteriorly over the top of the head. This gap is quite normal and is known as the anterior fontanel. Its size may vary, from a one rupee coin to a larger size. It will become smaller as the months pass and will close when the baby is eighteen months old. You may feel a pulsation if you put your finger over it. If you feel it bulging (rising above the level of the bones) discuss it with your paediatrician. There is another gap posteriorly over the top of head known as posterior fontanel. This is smaller than the anterior fontanel and closes earlier.

Squint

Some newborns have a deviation of one of the eyes. Usually this is corrected by itself in a couple of months when the muscles that control the movements of the eyeballs become stronger. If a squint persists beyond three or four months, you should contact an eye specialist. A delay may cause permanent loss of vision.

Swellings in the groin area

In some newborns, there is a swelling in the groin, scrotum, or labia of the baby. It may be present only when the baby cries or strains herself, and disappears when she is relaxed or asleep. This is known as inguinal hernia. Most of the time it does not cause discomfort. The bulge is noticed during a bath or diaper change. It has to be repaired surgically soon after the diagnosis is confirmed. In some babies, there is a swelling in the scrotum, where the affected side looks larger.. This is known as a hydrocele. It happens when a watery fluid collects around the testicle. This is a common problem in newborn males and usually goes away within the first year of life.

Umbilical hernia

It appears as a swelling around the baby's navel, which bulges when the baby cries. When you press it with a finger, the swelling disappears. In an overwhelming majority of babies, this swelling disappears within a year. The practice of putting a coin over it and strapping with a bandage is not recommended.

Umbilical hernia

Swellings on the head

In some newborns, there is a diffuse swelling of the scalp at the time of birth, caused by the mechanical trauma of the initial portion of the scalp pushing through the cervix. This is known as caput succedaneum. It may be on any portion of the scalp and may cross the midline. There may also be moulding of the head. This swelling resolves itself and no treatment is required. In some newborns, there is another kind of swelling called cephalhematoma. It is a well-demarcated fluctuant swelling of the head, which does not cross suture lines. It appears within a day or two of birth and is caused by bleeding due to prolonged delivery or instrumental delivery. It usually resolves over a few weeks without any intervention.

Cephalhematoma

Vaginal discharge/bleeding

In a female baby, there may be a white discharge from the vagina for two or three days, followed by a bit of bleeding. Both are normal phenomena and attributed to the mother's hormones. No treatment is required. If the discharge is foul smelling or bleeding is profuse or doesn't stop, then you must contact your doctor. Bleeding from any other site is abnormal.

Swelling of the breasts

There can be swelling of breasts in babies of both sexes. This is a normal phenomenon and there is no need to feel concerned or do anything about it. If left alone, these swellings subside in a few days or few weeks. Do not attempt massage, fomentation or expression of breasts, as these practices may lead to infection.

Non-retractile prepuce

Prepuce is normally non retractile in all male babies in 4the first year and should not be pulled back by force in an attempt to open it. Let it be. Urethral opening is also normally narrow and pinpoint at birth.

Tongue tie

There is a cord between the base of the tongue and the floor of the mouth called the lingual frenulum. In some babies, the lingual frenulum is short and taut after birth, partially restricting movement of the tongue. This condition is called tongue tie. In most of these children, the frenulum continues to recede during the entire first year. Although tongue-tie is common, surgery is necessary only in rare cases. If a tight frenulum is interfering with a baby's

feeding, then early treatment is indicated. If a baby is feeding well, however, it is usually better to wait at least a year because tongue-tie so often resolves on its own. If the tongue-tie is affecting speech later on then a small operation is carried out to cut it.

Tongue tie

Sneezing

Newborns sneeze often and this is due to a blocked nose or the irritation of their nasal passages by irritants in the air they breathe. The most common irritants are smoke, dust mites, and mould. During the winter, if the heater is on, the dry air can cause it. Sneezes will help to clear the passages of your baby's nose. It is the nature's way of helping the infant get rid of dust or other irritants. Persistent sneezing may be a signal that the nose needs to be cleared with a saline drop or the bulb syringe. Sneezing also occurs when your baby has a cold.

Hiccups

Hiccups are normal, although a new mother may be alarmed to see their occurrence in her newborn. Normally, the hiccups will just go away by letting them run their course. You can offer a little water, and if you are breast feeding, let the baby suckle at the breast for a minute or two. Hiccups may also be a sign that your baby is feeling a little stressed and needs to have some quiet time. Make sure your baby is burping well and is not swallowing a lot of air when she breastfeeds or eats.

Natal teeth

Natal teeth are teeth that are already present at the time of birth. They are basically primary teeth which have erupted early. They are different from

neonatal teeth, which grow in during the first 30 days after birth. Natal teeth are quite uncommon; about one in every 2,000 to 3,000 births. Although most natal teeth are harmless, sometimes they may be associated with certain medical syndromes. Natal teeth generally develop on the lower gum, may be firm or wobbly. They are generally not well formed, but they are still firm enough to cause irritation and injury to the infant's tongue and mother's breast when nursing. If they are loose they will be removed because they may be aspirated into lungs of the baby. If the teeth are not removed, keep them clean by gently wiping the gums and teeth with a clean, damp cloth. Check the infant's gums and tongue frequently to make sure the teeth are not causing injury.

Weight loss

Many parents are alarmed to see their newborn lose weight quickly after birth. "Baby looks weaker!" they will comment with some dismay. But it is normal. Most newborns lose five to ten percent of their birth weight in first three to five days. They regain this weight in next ten to fourteen days. Weight loss is more in breast fed babies compared to bottle fed babies.

Startling

If you make a loud noise or flick a relaxed newborn he will extend her arms and legs, open her fingers and arch her back. He will then clench her fists and pull her arms to her chest. He may also cry and have increased heartbeat and breathing. This is known as startle reflex and is perfectly normal although it may alarm some parents. By the end of third or fourth month this phenomenon disappears.

Jitteriness

Jitteriness is exaggerated startle response in newborns which is often confused by parents as fits. Jitteriness is not abnormal; it is the response of normal term newborn to external stimuli. It is seen as rhythmic tremors of equal amplitude of the limbs. Jittering can be easily initiated in them by external stimuli such as handling or loud noise. Jitteriness is most frequently seen during first few days of life in normal mature babies and may extend throughout the neonatal period.

At times the jitteriness may proceed to clonus which is an involuntary muscular contraction alternated by relaxation in rapid succession. It happens when the newborn is active. This movement can be easily stopped by restricting the affected part. Sucking also helps to stop it.

Persistent or excessive jitteriness needs doctor's advice and may be due to low blood sugar levels, low calcium levels, drug withdrawal due to maternal drug use or due to lack of oxygen available to baby during birth process.

SKIN WOES

Dry or cracked skin

Superficial layers of skin may peel off or may appear dry in a post mature (baby born beyond the expected date of delivery) baby. Sometimes a newborn born on the due date also has dry and cracked skin. You can apply coconut oil or any other good vegetable oil just after sponging or bathing the baby.

Bluish gray patches over skin

These patches are also known as Mongolian spots. They are seen over the back of the trunk, hips, thighs and other areas and are more common in children of Asian origin. They are not of any significance and no treatment is required. They disappear over a period of time.

Mongolian spots

Salmon patches

Salmon patches, also known as stork bites or angel kisses, are flat, pink patches present at the nape of the neck, between the eyebrows, over the eyelids, or around the nose or mouth. Because they are the dilated fine blood vessels of the skin, they tend to look darker or redder when a baby is crying or is excited.

Stork bites

No treatment is required. Most of these marks disappear, usually within the first or second year. Those around the hairline at the back of the neck are the most likely to remain.

Skin rashes

Your newborn may develop a rash over his face. Most of these rashes are self limited and no treatment is required. Wipe the face with a clean wet cloth twice a day. Do not apply baby creams. Sometimes the rash may be due to seborrheic dermatitis or atopic dermatitis, in which case your paediatrician may advise a suitable cream. Sometimes, there may be a rash around the baby's buttocks and genitalia (nappy rash). Your paediatrician will suggest a suitable cream to take care of it. To avoid nappy rash, clean the skin, after each passage of motion and urine, with wet linen or cotton wool and expose the area to lots of air. Avoid excessive use of diapers which may be the cause of such rashes. Another type of rash, erythema toxicum, may appear in fifty percent or more of all normal newborns. It usually appears in term infants after the first day, and may last for several days. There may be a few, or many, whitish patches surrounded by redness. The lesions are usually on the face and trunk, but they can also appear on other areas of the body including the upper arms, and thighs. Although the condition is harmless, it can be of great concern to the new parents.

Cradle cap

In some newborns, there is a deposition of dark, flaky material and redness over the skin of the head. The scalp hair is matted with it and may be uprooted when this material is peeled off, leading to baldness, which alarms parents. A rash may spread to the face, behind the ears and other parts of the body. This condition may be due to a fungal infection of the scalp known as

seborrhea capitis (similar to dandruff in older children). Mild cases can be treated with rubbing of coconut or olive oil to remove the flakes from the scalp. For severe cases, you should contact your paediatrician who may advise a medical shampoo and at times a mild steroid cream.

Cradle cap

Newborn acne

Newborn acne is pimples which appear on the face, chest and back of the baby in the first month or sometimes later. This condition is thought to be due to mother's hormones crossing through placenta into 4the baby. These lesions disappear by themselves and no treatment is required. They can be aggravated by milk, spit up of the baby, rough clothing or clothes washed in strong detergent. Do not use soap, lotion or creams on the face of the baby if he has this problem.

Milia

Small white dots may be seen over the face, especially over the nose. These tiny dots, or milia, are harmless and develop due to sebaceous gland obstruction. No treatment is required.

Chapter - 3

Danger Signs In the Newborns

“My baby was the tiniest thing I ever decided to put my whole life into”.
~T. Guillemets

Dear mom; you should be aware of the danger signs that indicate that your newborn requires immediate medical attention. If you notice any of the following signs you must contact your paediatrician immediately -

- ✓ Undue dullness
- ✓ Excessive crying or irritability
- ✓ Refusal to take feeds
- ✓ Frothing or drooling from mouth
- ✓ Choking at feeds
- ✓ Difficulty in respiration
- ✓ Fits
- ✓ Excessive vomiting especially blood or bile-stained (green coloured)
- ✓ Pus collection anywhere in the body
- ✓ Redness around the navel (belly button), unusual bleeding or pus discharge from the navel
- ✓ Bluish discoloration of the lips and tongue,
- ✓ Jaundice in the first twenty-four hours of life or increasing jaundice after that
- ✓ Failure to pass motion within 24-hours of birth and urine within 36 hours,
- ✓ White patches in the mouth
- ✓ Fever

I sincerely hope you will never have occasion to rush to a doctor for any of these.

Chapter - 4

How To Choose Your Paediatrician

"I love Kids, so two things that I have thought about are being a paediatrician or a kindergarten teacher"
~ Karlie Kloss

Dear new parents, it is important to choose a paediatrician for your baby whom you trust and like. Doctor-patient relationship is based on trust. If your child is truly sick, your doctor could be making life-changing decisions for her child. So it is important to choose a paediatrician whom you can entrust with your child's health. Remember that it doesn't necessarily matter whether or not your doctor is a pass out from the best medical college or finished first in his class. You are really looking for someone who is going to care for your child, who listens to and responds to your needs, and is available when you need him. Your search may not give you immediate results; it may take several visits to different doctors to know for sure.

How will you make a choice?

A common way for parents to choose a paediatrician is to get a recommendation from their friends or family members. This is one of the best ways, but remember that different parents have different priorities and you may not like their doctor for the same reason that they like him. For example, they might appreciate that their paediatrician takes very little time and they are in and out of his office in a short while, whereas you might prefer a doctor who is unhurried and gives you time. Or they might like their doctor because he prescribes many "effective medicines," which helps their baby recover "so fast",, whereas you would prefer fewer medicines. So when your friends or family recommend a doctor, always ask why they like him.

Your obstetrician can also be a good source of information. There are other but not so good ways of getting information, such as the chemist's shop in your locality, your insurance company's list of empanelled doctors or the yellow pages directory.

Issues to consider

- ✓ If it's a group practice, do you know and like the other doctors?
- ✓ Is the office staff courteous and helpful?
- ✓ Do the doctor's hours suit your schedule?

- ✓ How long do you usually have to wait?
- ✓ Is the waiting room pleasant and kid-friendly?
- ✓ Is the parking available and conveniently located?
- ✓ Is there anything you don't like or wish was different about your child's doctor or her Clinic?
- ✓ Is the paediatrician on your insurance company's panel?
- ✓ How does this doctor's office handle payments, billing, laboratory charges, and insurance claims?
- ✓ How does the office handle telephone inquiries? Does it have specific times for parents to call or is there an open advice line during office hours? And if staff members handle the inquiries, do they dispense their own advice or convey the doctor's?
- ✓ Does the doctor accept and answer questions by email?
- ✓ How long does it take to get a non-emergency appointment with the doctor?

Questions to ask your paediatrician

- ✓ Do you have a satellite office?
- ✓ Do you offer same day sick appointments?
- ✓ Do you have any late or weekend hours?
- ✓ What happens if I need advice after hours? Is a doctor available on-call to talk to me?
- ✓ How many doctors are in the office? Will I always see my own doctor?
- ✓ Are there separate sick and well waiting rooms?
- ✓ Are there any extra charges for advice calls during the day, after hours advice calls, refilling medicines, or requests to fill out forms, etc.?
- ✓ With which hospitals is the paediatrician affiliated? This is especially important if your baby falls sick after hours and you have to take the child to a hospital.
- ✓ How do you reach the doctor if your child gets sick after hours? When your doctor is not on call, does a colleague cover for him? (Some doctors send patients to urgent care clinics, for example, while others

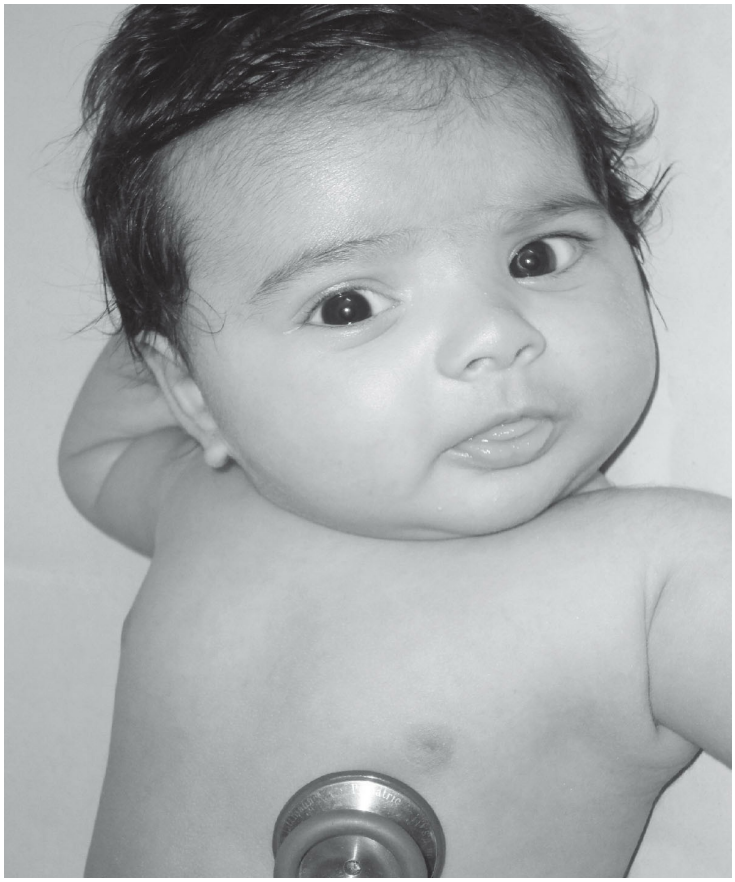
will meet you at the office even at night.)

Solo practice vs. group practice

Another practical matter to consider is whether you want to go with a group practice or a solo practitioner. The benefit of a solo practitioner or a paediatrician who is in an office by himself is that you can be sure that you will always see your own doctor. The biggest downside is that if your paediatrician takes some time off, either for a vacation or if he takes an afternoon off, then you may have to wait for an appointment or go to another office.

Chapter - 5

How Frequently Should My Baby Go For Check-up? (Well Baby Visits)



“A new baby is like the beginning of all things-wonder, hope, a dream of possibilities.”
~ Edna L. Le Shan

Well baby visits are visits to a doctor to monitor your baby’s general well being, growth and development, to give vaccinations, discuss health issues, safety issues, get nutrition & weaning guidance, and to get your questions answered. Don’t be shy about asking a lot of questions! You know your own baby best, and you must feel comfortable bringing up concerns. But also remember to tell your doctor that purpose of your visit is not only vaccination but also a well baby check up and you will pay for it separately. Here is a general schedule of your well baby visits in the first year, but there can be variations depending on your baby’s needs.

After discharge from hospital, if your baby is a healthy full term newborn and has no problem, you can take the baby to your paediatrician for a check up after ten to fifteen days. But you should watch the baby closely in the meanwhile. If the baby’s eyes or skin appear yellowish, you should consult your paediatrician. You should also watch for any discharge of pus or bleeding from the umbilicus. Keep a close watch on the warning signs which I have mentioned in the chapter on “common problems of the newborns”.

If your newborn is a low birth weight or preterm baby, she will be seen more frequently by the doctor to ensure adequate feeding, weight gain and absence of infections.

Afterwards you can take the baby back for check-up and immunizations at six, ten and fourteen weeks. During these visits the doctor will also record the baby’s weight, head size, length and will check her milestones of development.

You should again take the baby to the doctor at six months for a check up, assessment of growth and developmental milestones and any remaining immunizations, and also to discuss weaning (introduction of semi-solid and other complimentary foods).

After this, you will go back at nine months for immunization, a routine check up, growth and development assessment and further guidance on introduction of semi-solids in the baby’s diet. Next you will go back at one

year for a routine check up, growth and development assessment and any vaccine that the doctor would want to administer.

If your baby is a special needs baby then the visits to your doctor may be more than the above mentioned schedule. your doctor is the best person to give you a schedule accordingly.

Chapter - 6

Does Your Baby Need Vitamins & Supplements?

“Mother’s milk is the best tonic in the world”

This is a common query of the new parents. A full term, normal, breast fed baby does not need many vitamins or supplements except a dose of Vitamin K at birth and Vitamin D drops in the first year. Vitamin K is given to newborns on the premise that it takes some time for the newborn to start making this important vitamin in her system. The first milk produced by the mother (colostrum) is rich in this vitamin and all babies should get colostrum. It has also been seen that the amount of Vitamin K in breast milk can be increased if the mother’s diet includes leafy vegetables. American Academy of Pediatrics recommends supplementation of vitamin D 400 IU/day for all babies beginning in the first few days of life.

A breast feeding mom should be careful to have a well balanced diet with plenty of seasonal fruits, vegetables, sprouts, whole grains and nuts. She must remember that she has to eat for herself as well as for the baby (for milk production)

- If your baby was born preterm, Pediatrician may advise Vitamin A, vitamin D, Iron to your baby.
- If your baby was born extremely low birth weight, your doctor will advise all vitamins, calcium, zinc, phosphorus, copper, iron, folic acid etc to your baby.
- Babies who are given cow or buffalo milk will need iron & extra vitamins as supplements. Cow milk is deficient in Iron, Vitamin D, Zinc, copper etc.
- Iron drops are advised to all babies who are anemic, even those who are breastfed, after 6-8 weeks of birth.
- Under the vitamin A supplementation program run by the Government of India, children between 9 months to 36 months of age are to be provided Vitamin A solution every six months starting with 100,000 IU at 9 months age and subsequently 200,000 IU every six months till 36 months of age.

Chapter - 7

Where Should Your Baby Sleep?

“People who say they sleep like a baby usually don’t have one”.
~Leo J. Burke

Dear mom, In India it is common to keep the baby on the mother’s bed and this practice is quite OK. However, your bed should be large enough for you to share with your baby. Some western authors express reservations about the practice of babies sharing the mother’s bed, because the baby may be endangered by heavy quilts, pillows or mother’s weight, thus increasing the risk of sudden infant death syndrome (SIDS). But even in the west, the practice of babies sharing mothers’ bed is gaining momentum.

There is another very good option - you may use a co-sleeper or Arm’s reach baby crib, which is actually a crib attached to your bed. These cribs are very convenient, as the baby is right next to you but in the strictest sense, not in your bed. Babies can be breast-fed, soothed, comforted or otherwise cared for while the mother remains in her own bed. Close proximity to the child will allow all mothers less disturbance and more sleep.

Or you may be flexible; when you are awake, you can keep the baby in your own bed and when sleeping, you can keep the baby in a co-sleeper.

You may avoid putting the baby in your bed if

- You are very ill and need help yourself
- You or your husband have been drinking
- You take sleeping pills or such medication that makes you sleep deeply or your work is such that it makes you exhausted and you sleep deeply.
- You are very obese and you may accidentally smother your baby.

Many mothers in the west keep the baby in a separate room, the nursery. If you want to keep the baby in a nursery, the crib there should conform to the latest safety standards. It should not be placed where it is draughty, nor should it be close to a heater. All hanging cords, curtains and other hanging items should be kept away from the crib. You may use a reliable monitoring system and apnea alarm.

Arm's reach baby crib

Should I allow visitors when my baby gets home?

- When your baby gets home, there will be many well-meaning people who want to come and visit. Some things to keep in mind are:
- People with colds or the flu will have to visit at a later date.
- Your baby may be more sensitive to stimulation and may do better if not held by many persons or only held for a limited time by one person.
- You can limit the number of people who visit at one time and limit the amount of time they spend on the visit.
- Don't let people drink hot liquids or smoke and hold the baby at the same time.

Chapter - 8

How Can You Ensure Your Baby's Safe Sleep?

“A baby is God’s opinion that the world should go on”.
~ Carl Sandburg

No matter where your baby sleeps, on your bed, in a co-sleeper or a nursery, ensure that you provide a safe sleeping environment. Danger lurks even in sleep; seemingly the least dangerous activity.

Sudden Infant Death Syndrome (SIDS)

SIDS is the “sudden, unexpected death of an apparently healthy infant, whose death remains unexplained after a post mortem, investigation of the circumstances of the death, and exploration of the medical history of the infant and family”. It is most common in infants between two and four months of age.

While the exact cause of Sudden Infant Death Syndrome (SIDS) remains unknown, some likely causes may be:

- Babies who suffer from it are neurologically immature and cannot regulate their heart rhythm and sleeping respiration adequately. They may have arousal deficiency (baby is in deep sleep and is unable to wake up when a breathing problem begins to develop.).
- Hyperthermia (overheating) due to over-bundling of infants
- Rebreathing carbon dioxide trapped in bedding or due to covering the heads of infants
- Cigarette smoke exposure

Dear mom, do not worry or fuss too much on this issue; fortunately it is a rare happening. The incidence is 0.51/1000 according to the US data of 2004, so the chance of it affecting your baby is very remote.

However, it is one of the top causes of death in infants between the ages of one month and one year, so you should be alert and there are things you can do to help prevent it:

- **Back to sleep:** Have your baby sleep on her back rather than her tummy. Since pediatricians began this recommendation in 1992, SIDS deaths in US have decreased 42%. Babies who sleep on their tummies sleep better

and longer. Although it is a matter of great of great relief to sleep deprived parents it is not the recommended way. Babies who sleep on their back wake up more often and are more alert. This seems to help protect them from SIDS.

- Avoid exposing the baby to tobacco smoke; the greater the exposure to smoke, the greater the risk of SIDS.
- Breastfeed your baby. Breastfed babies have a lower incidence of this problem.
- Avoid exposing your baby to colds and flu. Have people wash their hands before holding your baby.
- Place infants on firm mattresses with no covering, or only a sheet or light blanket. Do not cover your baby's face.
- Loose toys and other soft bedding, including fluffy blankets, comforters, pillows, stuffed animals, bumper pads, and wedges should not be placed in the crib with the baby. Bedding, such as sheets and blankets, should not be used as these items can impair the infant's ability to breathe if they are close to her face.
- Do not over-dress the baby while she sleeps, or overheat the room. Overheating an infant may increase the risk of SIDS. Babies do not have the capacity to regulate their temperatures well.
- Educate family members and daycare providers about the ways that help reduce the risk.
- **Co-Sleeping -** Sharing a bed can have varying affects on babies. The risk may be increased if the baby is sharing a bed with a mother that smokes, or with adults who sleep deeply due to exhaustion, drug use, or alcohol use. The risk may also be increased if the baby and mother are on a couch, soft mattress, waterbed, or other soft surface. The risk may be decreased fourfold if there is a responsive adult sleeping in the same room as the baby. SIDS risk may be reduced by co-sleeping, under the right circumstances. Please see detailed discussion in the chapter seven "Where should your baby sleep?"

Chapter - 9

Burping Your Baby

“To the world you may be one person But to your baby you are the world”
- Anonymous

The practice of helping your baby release the air in her stomach is called burping. When your baby drinks milk, she may swallow some air bubbles along with milk. Air bubbles in baby’s stomach can cause pain and bloating due to gas formation, so burping your baby during and after a feeding is the best way to keep her comfortable. Burping is more common in bottle fed babies as compared to breast fed babies.

If you are breastfeeding, it is best to burp baby after she has finished feeding. If you are bottle-feeding, you should try to burp her halfway after she’s taken in 3-5 ounces and again when she has finished feeding.

There are different positions for burping that are comfortable for you and your baby. Many parents prefer to use one of these three methods:

- Sit upright and hold your baby against your chest: This is the most popular position. Your baby’s chin should rest on your shoulder as you support her head and back with one hand. With the other hand, gently pat your baby’s back. Sitting in a rocking chair and gently rocking with your baby while you do this may also help.
- Hold your baby sitting up, in your lap or across your knee: Support your baby’s chest and head with one hand by cradling your baby’s chin in the palm of your hand and resting the heel of your hand on your baby’s chest (but be careful to grip your baby’s chin - not throat). Use the other hand to pat your baby’s back gently.
- Lay your baby on your lap on his or her belly: Support your baby’s head and make sure it’s higher than her chest. Gently pat your baby’s back.

Chapter - 10

Which Oil, Soap And Shampoo Should I Use?

“Every child born into the world is a new thought of God, an ever-fresh and radiant possibility”.
~ Anonymous

Dear mom, you do not have to bathe your baby with soap in the first seven to ten days of life, till the cord has fallen. Bathing with clean water is enough. In the following lines you will find recommendations about different toilette items.

- ✓ There is no need to buy medicated soaps or so called “baby” soaps. In fact, they may be harmful; babies may develop skin rash with their use. Use any good non scented soap and shampoo for bathing.
- ✓ Do not use special baby oils advertised in magazines and newspapers as they contain liquid paraffin, which may cause rash on baby’s delicate skin. It is best to use vegetable oils like coconut oil or sesame oil (til oil) for massaging and application on baby’s skin. Olive and almond oils are costlier but not better; so do not bother to purchase them either. There is also no need to use commercial baby lotions and baby creams.
- ✓ There is no need to apply talcum powder. Talcum powders may harm your baby by causing allergies and even lung disease. However, you can use cornstarch powders on the moist creases of skin, such as the diaper area, where there is no exposure to air. There are times when cornstarch powder also isn’t a good idea. If your baby’s skin is raw from diaper rash, for example, it’s probably best to keep powder off it and use a diaper ointment or cream instead. And if your baby shows any signs of a skin infection - there are areas of skin that are red and very warm to the touch or oozing - then don’t put powder on it, either. Instead, have your baby’s doctor take a look.
- ✓ You can use any good shampoo but dilute it, using one part of shampoo to two parts of water. For babies with cradle cap, you may use a medicated shampoo advised by your Paediatrician.
- ✓ In some families, grandmothers recommend putting oil into the baby’s nostrils and ears. Avoid this practice; oil may be aspirated into the lungs and cause a variety of pneumonia called lipoid pneumonia. If your baby’s breathing is obstructed due to cold or secretions, use saline nasal drops, which are quite effective and harmless.

Chapter - 11

Baby Massage

“Baby massage is the magic glue which binds the baby with the mother”
- Anonymous

Dear mom, massage is beneficial for your baby. You can do it yourself or employ a maid, a “Malishwali Bai,” who are found easily in our country (aren’t we lucky?), and after initial supervision, can be allowed to do the job. If you have any concerns about massaging your baby, and especially if your baby is sick, you should consult a paediatrician first. In any case never massage a baby if she appears ill or uncomfortable.

What are the benefits of baby massage?

- ✓ Baby massage is a good bonding experience; a good way for you and your baby to get to know each other and spend a bit of quality time together.
- ✓ Studies have suggested that physical contact is good for babies, improving their breathing, circulation, digestion and growth.
- ✓ It relaxes both the parent and the child.
- ✓ It provides a good source of sensory and muscle stimulation, which is beneficial to all babies, but may be particularly good for babies with special needs, such as those with developmental disabilities and Down’s syndrome.
- ✓ Baby massage is even claimed to combat postnatal depression in mothers, according to a BBC news report on baby massage and post natal depression.
- ✓ It’s fun for both of you.

Essentials for baby massage
You will need:

Some oil – A simple vegetable oil like coconut oil or til oil (sesame oil) is best. Do not purchase special massage oils sold in the market. They have no added value and can even be harmful.

Comfortable temperature- Your baby is going to be exposed right down to the skin and therefore needs to be in a warm (but not hot) environment. Also remember that babies are not good at regulating their body temperature and

cool down much faster than adults do. If you are massaging a baby in the winter months, use a heater or do it in a sunny corner where there is no wind.

A comfortable surface - You need something soft, warm and well cushioned for the baby to lie on. However, In India, it is common to put the baby on a dari (cloth mat) and it seems to work quite well.

A comfortable position- In Indian traditional massage, either the mother or the the Dai adopts a cradle pose. She sits on the floor with legs outstretched; the knees are bent slightly outward with the soles of the feet touching each other. The cradle created by the legs is used to place the baby in the centre. This position helps the infant feel secure and conserve warmth. Some mothers put babies on outstretched legs. Some mothers sit cross legged and place the baby before them on a flat surface like a "Dari" (mat).

Time - Try to pick a time when you will not be disturbed and when you both can relax. For your baby, it should not be too soon after a feed or so close to a meal that the baby will be hungry and distracted. Equally, don't pick a time when your baby is really tired and just wants a bit of peace. Do it just before your baby's bath.

Your mood - Your mood should be relaxed before you begin. Put aside your worries for a while. Remember that babies are smart enough to pick up on the mother's mood and will not enjoy the massage if their mother is tense.

A good atmosphere - Don't watch TV and massage your baby at the same time. But you can play some gentle instrumental music.

Before you begin

- Make sure you really are comfortable and relaxed and that you have everything at hand.
- Undress your baby and put a clean nappy under the baby's bottom.
- Warm up: Shake your hands vigorously to loosen them up. Imagine that energy is flowing from your body into your hands.
- Pour a generous amount of oil on your hands and rub them together, before touching your baby, to warm the oil. This also gives your baby a visual and aural cue that a massage is on the way.
- Ask your baby's permission. Read her body language. Massage is quite a personal thing. Don't take it for granted that your baby will want a

massage at all times and on all days.

General rules

Baby massage can be quite different from adult massage, both in terms of strokes and techniques. Baby massage should never be probing, but should also not be so light as to tickle the baby. You need to be very gentle on tiny babies - a standard recommendation is to place your finger on your closed eyelid and press lightly, stopping before it feels uncomfortable. Use this as a gauge for how much strength to use on a new baby. For older babies, be firm as babies prefer confident handling. Think about what you would enjoy and then watch your baby for reactions.

On the trunk, always massage from your left to right (that's from your baby's right to left). This follows the direction of flow in the digestive system, so that you are working with the baby's organs, not against them. Use your writing hand for the major part of the strokes.

STANDARD MASSAGE STROKES

Here are some of the popular and commonly used massage strokes

Open book (used on chest, back and forehead)

Place your hands together palm to palm, in a 'praying' gesture, with your fingertips pointing towards the baby's head, your thumbs uppermost. Now imagine that your hands are a closed book. Place your little fingers against the baby's skin and 'open' the book by spreading your hands, until your thumbs - still touching each other - reach the baby's flesh. Separate your hands and continue to move them outward across your baby in one smooth motion.

Milking (used on arms and legs)

This is a favourite Indian massage stroke. Starting at the top of the limb and squeezing gently, move your hand down to the wrist or ankle. Imagine that you are milking a cow. As one hand reaches the wrist or ankle, start at the top with the other hand so that there is a continuous stroking effect.

Rolling (used on arms and legs)

This is another favourite Indian massage stroke. Place one hand under the limb and other hand above. Roll the limb between the hands. Then move gradually down the limb.

When is my child too old for baby massage?

There is no fixed rule here. It varies from baby to baby. Some babies do not want to be massaged when they begin to crawl. Do not worry if it happens with you. Your child may want it again when he or she is a little older, and by then your child may be able to make it clear to you which strokes he or she likes best. So the best time to quit is when they are old enough to give a message to you.

Chapter - 12

Baby Bathing

“You can learn things from children. How much patience you have for instance.”
~ Franklin P. Jones

Dear mom, you do not have to give a full bath to your baby in the first week. You should wait till the umbilical cord has fallen. Till then you can give the baby a warm water sponge bath. After the cord has fallen, give a full bath every day if the weather is hot or humid. If the weather is cold, give a bath twice a week and sponge the baby in tepid water on other days. Besides bathing, you should sponge clean areas where she is likely to sweat, her nappy area, between the hips, and the neck, a few times a day, if the weather is warm.

Some facts about baby bath

- Many babies enjoy a bath, but some don’t, so you may like to wash only parts of their body at once instead of giving a full bath.
- Bath time should be fun, so if you are feeling stressed take a few minutes to relax before you begin.
- The room should be kept warm so the baby doesn’t become too cold between changes. Babies can lose heat very quickly, especially if they are wet.
- The bath water should be warm, not hot. Test it with your hand or wrist before putting the baby in it.
- Never leave your baby alone in the bath or on a changing table, even for a minute. Babies easily drown or fall from tables.
- A sponge bath for newborns may be easier in the first few weeks.
- Get everything you need ready before putting the baby in the bath because that will make your job easier.

Items you will need

1. A baby bath or tub filled with warm water from the tap. Check it with your hand first to make sure it's not too hot. Make it slightly cooler if in doubt.
2. A mild soap, to use sparingly, because it can dry the baby's skin.
3. A mild baby shampoo or mild soap for their hair.
4. A good-sized towel.
5. A set of clothes.

Safe bathing

Follow these rules to safely bathe the baby:

- ✓ Hold the baby firmly, supporting her head and back with one hand and washing her with the other.
- ✓ Fill the bath with only six to eight centimetres of water for infants up to six months, and only waist deep for older children.
- ✓ Shampoo the hair last and use only a small amount.
- ✓ Take the phone off the hook (or put on the answer phone), while the baby is in the bath.
- ✓ Put the cold water in before the hot to help prevent scalding. Test the temperature of the water with your hand before putting the baby in it.
- ✓ Do not put the baby in the bath while the water is still running.
- ✓ Always stay with the child at all times. Take the baby with you if you have to leave the bathroom. Children can drown in less than an inch of water and in less than one minute. There have been tragic cases of this happening when the caregiver was briefly distracted.

Boys: penis care

- ◆ Your baby's foreskin does not need any special cleaning. Normal bathing with plain water is the best care. Do not rub a lot of frothy soap around the foreskin as this can get under it and cause irritation.
- ◆ The foreskin cannot normally be pulled back and cleaned until 3-4 years. Never try to force it back.
- ◆ If your baby has been circumcised give him a sponge bath until his skin

has healed.

- Seek medical advice if you notice pus at the end of the foreskin, if the foreskin balloons out during urination, if the urine flow is weak, or stops and starts, or seems to be painful.

Girls: genital care

A lot of frothy soap and bubble baths can sometimes irritate the genital area and should be avoided. Cleaning well with plain water and gentle drying (dabbing with a soft towel) is best.

Nail care

Your baby's finger nails may be long and overgrowing. Babies have a habit of throwing their arms and hands around and may scratch their face with long nails. You can either file them with a nail file or emery board or you can trim them with a baby nail cutter. You will need a partner who will hold the baby steady while you safely clip the nails. Push the finger tip away from the nail and keep a firm hold on her hand. A little carelessness and you will end up clipping baby's fingers instead. It is also important to keep baby's nails clean.

Ear Care

Dear Mom, ear care of your baby is important. Lack of proper ear care may lead to many problems; including hearing loss and defective speech development. Here are some tips on ear care-

- ✓ Breast-feed your baby. Breast-fed babies may have fewer ear infections.
- ✓ Breast Feed babies in an upright position to prevent milk from entering into the ears. Milk, when it enters the ears, may cause infections in the ear.
- ✓ If you are using a bottle, do not allow infants to fall asleep with a bottle.
- ✓ Do not allow your baby to hold her own bottle.
- ✓ If you are putting your baby in day care check the cleanliness and hygienic practices of that place. Choose a day care setting with six or fewer children. Make sure that day care workers wash their hands before

and after each diaper change. Have day care workers wash toys often.

- ✓ Avoid exposing your baby to cigarette smoke which may cause frequent ear infections. If you smoke and are unable to stop, smoke outside, away from your baby and do not come back to her for at least ten minutes after you have smoked.
- ✓ Wash your hands before and after every diaper change and teach your child to wash her hands after using the toilet.
- ✓ Teach your child to blow her nose gently and wash her hands after blowing. This helps prevent the spread of germs that can cause infection.
- ✓ When possible, limit your baby's contact with other children who have colds.
- ✓ Do not insert anything, such as a cotton swab or safety pin, into the baby's ear. Gently cleanse the outside of your baby's ear with a warm cotton cloth.
- ✓ Try to keep soap and shampoo out of your child's ear canal. Soap and shampoo can cause itching, which can be mistaken for ear pain if the child is scratching or pulling at her ears.

Chapter - 13

Using Nappies

“Diaper backwards spells repaid. Think about it.”
~ Marshall McLuhan

Nappies can be disposable or reusable fabric. Fabric nappies are available as terry towelling pieces, flannelettes, muslin squares or fitted, panty-shaped nappies; there are many varieties available. Disposable nappies are OK for a short period; when going out of the house, to the market, to the doctor or while travelling but avoid using these all the time at home; an overuse of disposable nappies is associated with more incidences of nappy rash as compared to reusable cloth nappies. Cloth nappies are also more environmentally friendly. Let there be short periods of no nappies also. Expose your baby’s perineum (area around anus and urine openings) to fresh air often; it is so healthy and natural.

A word about nappy rash--this is caused by not cleaning well the skin of the perineum area. To avoid this problem, after the baby has passed urine or potty, wipe your baby’s skin thoroughly with a clean wet cloth or wet cotton wool and then wipe it gently with a dry cloth and expose her skin to lots of air. Also, wash your baby’s perineum with clean water from time to time. If the problem increases in severity, contact your doctor; he may advise applying a cream that contains a mild steroid or zinc, which will take care of the problem.

Items you need to change a nappy

Choose somewhere warm and safe to change your baby’s nappy. Before you begin, gather a few supplies. Make sure you have everything you are likely to need within arm’s reach. You will need:

- A nappy
- A changing mat on the floor or a changing station/table.
- Fasteners (if you are using reusable nappies)
- A container of warm water and cotton balls (for newborns or babies with sensitive skin) or a clean washcloth or baby wipes (for older babies or those who aren’t sensitive to wipes)

Changing your baby

- Remove the clothes on the lower half of your baby's body. Put them aside or pull them up so they are out of the way and not likely to get wet or dirty.
- Open the used nappy and use it to clean off anything remaining on her skin.
- Remove the nappy, folding it over carefully so that nothing spills and drop it in a "used nappy bag" immediately.
- Wipe your baby's skin using cotton wool and water or a wet cloth; wipe from the front to the back (never wipe from back to front, especially on girls, or you could bring the bacteria that can cause urinary tract infections forward from the rectum). Don't forget the creases in the thighs and bottom.
- Allow some time so that the skin dries..
- Hold your baby's ankles together and lift her legs so that you can slide a clean nappy underneath her bottom. If you are using disposable nappies the back part with the adhesive strips should be about level with your baby's tummy button.
- Bring the adhesive strips around and fasten snugly. Be careful not to stick the tape onto your baby's skin.
- Do up the nappy and secure with tabs as needed. Avoid nappies with metal pins.
- Do up your baby's clothes.

Things to bear in mind

- ✓ If you find any marks around your baby's legs and waist, the nappy is too tight. Go for a looser fit next time.
- ✓ If a rash develops at the nappy's openings around your baby's legs and waist, change the brand of nappy you are using.
- ✓ When putting a nappy on a boy, place the penis in a downward position before fastening the nappy. This will help prevent leaks from creeping up above the waistline, especially useful at night time.
- ✓ Fold down the waistline of the nappy if your baby's umbilical cord has not fallen off, to keep that area dry.

- ✓ Always wash your hands thoroughly after changing your baby's nappy to prevent the spread of germs
- ✓ Babies should never be left unattended on the changing table, even for a second. Even a newborn might surprise you with her ability to roll.

Chapter - 14

Your Baby's Vaccinations

"Vaccination is the medical sacrament corresponding to baptism"
Samuel Butler

What is a vaccine?

A vaccine is an agent which, when administered to our body, stimulates our immune system to produce antibodies against that disease without us having to become infected with the real disease.

How vaccination works?

Vaccination works by tricking our body into believing it is experiencing a full-scale assault by an infectious agent so that the immune system can fortify its defenses. During vaccination, a harmless version of a germ is introduced to the body and the immune system responds by producing antibodies to attack the intruder. Thereafter, memory of this encounter remains so whenever real infection enters the body our immune system quickly recognizes and neutralizes it.

Are vaccinations Safe?

Like any medicine, vaccines may cause side effects - but getting a vaccine is far safer than getting the disease. The most common reactions include pain, redness, and swelling in the area of the injection or a low-grade fever. Usually Paracetamol, given as drops or syrup will take care of these side effects.

Serious adverse reactions to vaccines are rare but exist. Reactions will depend on the type of vaccine given, so ask your doctor about the possible reactions. Also, if your baby has had reactions to vaccines in the past, let your doctor know.

WHAT ARE THE DIFFERENT VACCINES?

Your pediatrician will tell you in greater details about the importance, schedule, costs and side effects of the vaccines your baby requires. In the following chapter I will give you brief outlines of these vaccines –

BCG Vaccine

This vaccine is given in the first month along with polio drops and Hepatitis B vaccine and will protect your baby against tuberculosis, especially against its dangerous forms. This is injected between the layers of the skin at the tip of the shoulder. Vaccination is followed by formation of a papule within four to six weeks at the site of vaccination. This papule gradually heals with or without ulceration. If there is no scar formation within three months the vaccination is considered failed and has to be repeated. There are no immediate side effects to this vaccine.

Polio Vaccine

Polio is a dreaded disease which can cause permanent paralysis and sometimes life-threatening complications. Although India has been declared polio free in 2012, polio vaccination will have to be continued. According to recommendations of Indian Academy of Paediatrics 2016, Injection polio is to be given at six, ten and fourteen weeks. Booster dose of Injection polio is to be given between sixteen to eighteen months of age. Oral polio drops are to be given at six and nine months and again at five years of age. Oral polio drops may lead to minor gastrointestinal upset like diarrhoea and vomiting. Injection polio can cause some pain at the site of injection.

Hepatitis B Vaccine

Hepatitis B is a viral disease that causes acute and chronic liver disease. There are only three likely ways a baby could contract it.

1. Through blood transfusion (which is very rare since all blood is carefully tested for this)
2. At birth, from an infected mother to the baby through blood exposure during the birth process
3. By frequent, close contact with an infected family member

There have also been cases of children acquiring Hepatitis B with no known blood exposure or family member with the disease. This suggests that the disease may be passed by more casual contact. Hepatitis B infection can cause chronic liver disease and liver malignancy. The vaccine is given in three doses beginning from the first dose at birth and then at six weeks and

six months. Alternatively, but less preferably, it may be given at birth, six weeks and fourteen weeks. The side effects of the vaccine are mild, if any, and include redness, pain and swelling at injection site.

DPT Vaccine

This vaccine contains three components - diphtheria, tetanus and whooping cough. Diphtheria is a serious and life-threatening infection that can cause severe respiratory illness and heart failure. It is transmitted in the same way as a cold. Tetanus is again a serious and life threatening illness which causes spasms of the body muscles. It develops due to infection with tetanus organism, mostly through a dirty wound. Pertussis or “whooping cough” is transmitted just like a cold and causes one to three months of severe coughing fits. This vaccine is given in three doses initially, followed by one booster dose between 15 to 18 months. The side effects to this vaccine may be pain, swelling at the site of injection, fever & and difficulty in walking. A nodule may form at the site of injection which remains for some days. Side effects may persist up to 48 hours. For fever and pain you can give Paracetamol as drops or syrup to your baby after consultation with your doctor. Rarely child can develop fussiness, irritability, anorexia, vomiting, diarrhea, excessive crying etc. Consult your doctor if this happens. Coming of fever is not a rule and should not be considered as a sign of successful vaccination. A new version of this vaccine which is popularly known as “Painless, feverless DPT” or “Gentle DPT” is also available. It is costlier and in some babies it may also cause some pain and fever.

Measles Vaccine

Measles is a viral illness. It causes fever, cold symptoms, generalized or limited rash and sometimes life threatening complications. This vaccine is given at the age of nine months subcutaneously over the thigh or the arm. If there is an epidemic this vaccine can be given at 6 months and above, but this should be followed by one more measles vaccine at nine months.. According to new recommendations of the Indian Academy of Pediatrics, measles vaccine has been replaced by MMR vaccine at 9 months. Side effects of measles vaccine are usually mild and include fever and mild tenderness at the site of vaccination.

MMR Vaccine

This vaccine has three components, Measles, Mumps and Rubella. Measles has been described earlier. Mumps causes swelling of the salivary glands in the cheeks, sore throat and fever. Serious complications and fatality are rare in children, but do occur. Rubella is a mild viral illness causing fever and rash. It can, however, cause birth defects if a pregnant woman contracts the illness for the first time. This vaccine is given subcutaneously at 9 month & 15 months of age. MMR vaccine is a safe vaccine. Side effects include mild pain and induration at the site of vaccination and fever. Fever is seen in less than 10% of patients and is transient and mild. It can occur five to seven days after the vaccination.

Haemophilus Influenza Vaccine

H.influenza B is a common bacterium that causes severe blood and bone infections, meningitis and pneumonia in young children. It is transmitted by close contact, like a cold. This vaccine is among the safest and most efficacious of the vaccines. This is given intramuscularly at six, ten and fourteen weeks of age with a booster at fifteen to eighteen months. Side effects are not common. In rare cases, the vaccination is followed by mild fever and pain at the site of the injection.

Hepatitis A Vaccine

Hepatitis A spreads through contaminated food and water. Symptoms include fever, stomach aches, fatigue, nausea and yellow discoloration of eyes, due to mild and temporary liver damage. But this illness can at times be life threatening and fatal. This vaccine is given intramuscularly at one year with a booster dose after six months. Side effects of the vaccine are rare. There may be mild fever, pain and swelling at the site of injection.

Typhoid Vaccine

Typhoid vaccine protects against Typhoid fever. At present two forms of vaccines are available- Polysaccharide and Conjugate. Conjugate vaccine can be given from 1 year of age onwards. The polysaccharide vaccine is given as a single dose after two years of age, but has to be repeated every 3 years. The

benefit of conjugate vaccine is that it gives life long protection. Side effects of injectable vaccine include mild local side effect like pain, tenderness etc.

Chicken Pox Vaccine

Chicken Pox is not a fatal disease but there are strong reasons by its vaccine should be administered to children. Chicken Pox infection causes skin eruption all over the body with itching, with or without fever and at times other problems. Since the disease is contagious school has to be missed for as long as 10-14 days. It spreads to other members of the family specially children. There are four *advantages* to getting the vaccine:

1. It is 90% effective in preventing your children from having to go through this uncomfortable illness.
2. The illness tends to be milder in vaccinated children.
3. You avoid the extremely rare but life-threatening complications of the illness (approximately 1 in 70,000 cases – US data).
4. This vaccine may protect against adult shingles (a form of chickenpox).

This vaccine is given in 2 doses. The first dose is given at 15 month of age & the second dose may be given any time three month after the first dose. Side effects are rare. There may be mild fever, pain & swelling at the site of injection.

Influenza Vaccine (Flu Vaccine)

This vaccine protects against the influenza viruses (including H1N1 Swine flu virus) that research indicates will be most common during the upcoming season. The viruses in the vaccine can change each year based on international surveillance and scientists' estimations about which types and strains of viruses will circulate in a given year. The inactivated form of this vaccine is given to high-risk children (suffering from asthma, low immunity, HIV patients, kidney disease etc.) and also to children whose parents request it, after six months of age. It is given in two doses after a four-six weeks interval intramuscularly or subcutaneously.

Rotavirus Vaccine

Rotavirus vaccine is a drinkable vaccine which is given to infants before thirty two weeks of age to protect against rotavirus diarrhoea. Rotavirus is a kind of virus which causes, in infants, severe watery diarrhoea with dehydration and even death in extreme cases. It is estimated that in India Rotavirus causes approximately 1.2 lakh deaths annually. There are, at present, three kinds of vaccines available. The doses are given at least four weeks apart. There are no major side effects, sometimes there may be mild fever, running nose etc.

Vaccination Schedule

Based on Best Current Recommendations 2015-16

Age	***Vaccine***
Birth	BCG Oral Polio Vaccine 0 dose Hepatitis B Vaccine 1st dose
6 Weeks	DTwP/DTaP 1st dose Injection Polio 1st dose Hib Meningitis 1st dose Hepatitis B 2nd dose Rotavirus 1st dose Pneumococcal 1st dose
10 Weeks	DTwP/DTaP 2nd dose Injection polio 2nd dose Hib Meningitis 2nd dose Rotavirus 2nd dose Pneumococcal 2nd dose
14 Weeks	DTwP/DTaP 3rd dose Injection Polio 3rd dose Hib Meningitis 3rd dose Rotavirus 3rd dose Pneumococcal 3rd dose
6 Months	Oral Polio 1st dose Hepatitis B 3rd dose
9 Months	Oral Polio 2nd dose, MMR 1st dose

9 -12 months	Hepatitis A Vaccine Typhoid conjugate Vaccine
15 Months	MMR 2nd dose Chicken Pox PCV booster dose
15-18 Months	DTwP B1/DTaP first booster Injection polio Booster Hib Meningitis 1st Booster Hepatitis A 2nd Dose
2 Years	Typhoid Vaccine (Polysachhride variety) (If conjugate vaccine not given earlier)
4 to 5 years	DTwP/DTaP Second Booster Oral Polio Chicken Pox 2nd Dose Typhoid booster (If Polysaccharide variety)
10 years	Tdap/Td HPV

Vaccines for High-risk children / Special situations

1- Influenza Vaccine
2- Meningococcal Vaccine
3-Japanese Encephalitis Vaccine
4- Cholera Vaccine
5- Rabies Vaccine
6- Yellow Fever Vaccine
7- Pneumococcal Polysaccharide vaccine (PPSV)

Who are high risk children?

*Children who are suffering from immunodeficiency, by birth or acquired like in HIV.

*Children with heart, lungs, blood, kidney, liver diseases.

* Children with diabetes mellitus.*Children on long term steroid therapy, salicylates, immunosuppressive or radiation therapy. *Children with cancer disease. *Travelling children are a high risk group too and need certain vaccinations.

FAQ ON VACCINATION

Can a vaccine be given when the child is sick?

Vaccination should not be withheld in babies having minor illnesses like mild cough, cold, loose stools, vomiting or even mild fever. However if a child is having moderate to high fever, severe diarrhoea,, pneumonia or any other illness severe enough to require medical consultation, investigation or admission to a hospital, vaccination should be postponed. OPV dose can be given during diarrhea but should not be counted and an extra dose should be given the next month.

What precautions should one take before vaccination?

- ✓ Keep the baby's vaccination card in a file in a clean and intact condition.
- ✓ Carry your baby's vaccination card to the doctor's clinic each time you take the child for vaccinations.
- ✓ Inform the doctor if your baby has had any adverse effect during any of her previous vaccinations.
- ✓ It is very important to complete the schedule in time.
- ✓ You should be sure about your baby's vaccination date and about which vaccine is to be given.
- ✓ You can breastfeed the child before and after any vaccination.

What precautions should be taken after vaccination?

- ✓ Keep firm pressure for a few minutes at the injection site with a spirit swab. Do not massage or rub at the injection site.
- ✓ Wait in the doctor's reception room for 30 minutes lest any reaction develop following vaccination.
- ✓ Discuss the next vaccination with the doctor and note down the due date.
- ✓ Inform the doctor immediately if the child develops any reaction, abnormal behaviour or habits following vaccination in the next few days.

What are the contraindications to vaccination?

- ✓ Babies who develop severe reactions to a vaccine should not receive the same vaccine again

- ✓ Babies with severe egg allergies should not be given measles or MMR vaccine.
- ✓ If a baby is receiving steroids as medication, parents should first consult with the doctor whether the baby should receive the vaccine.
- ✓ Patients in an immune compromised state, such as symptomatic HIV or AIDS should generally not receive live vaccines especially if a killed vaccine substitute is available.

What should the minimum gap be between two vaccines?

More than one vaccine can be given on the same day at separate sites; otherwise there should be a gap of 4 weeks between two vaccinations in general. This does not apply to polio and rabies vaccines.

My baby's paediatrician gives combination vaccines, which have 4-5 vaccines in one shot, to my baby. Is it right to give so many vaccines together?

Yes, vaccines given in combined form provide as much immunity and are as safe as when given separately. There is the additional benefit of reduced doctor visits.

My baby had no fever after the last vaccination. Does it mean that the vaccination was not successful?

The appearance of fever and pain is not a rule and should not be considered a sign of a successful vaccination.

If my baby has received a vaccine does it mean she is 100 % safe from the disease for which the vaccine was given?

No, vaccine manufacturers do not claim 100 % efficacy. Still, vaccination is effective in an overwhelming majority of vaccinated babies. Hence you should vaccinate your baby.

Chapter - 15

Your Baby's Growth

“A baby is an angel whose wings decrease as her legs increase”.
~Author Unknown

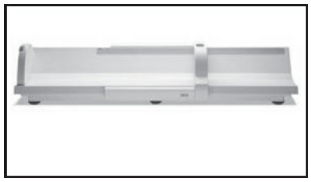
Dear new mother, during your baby’s general check up and vaccinations visits, her paediatrician will measure the weight, length and head circumference of the baby. He will inform you whether your baby is growing normally. Here are some tips on how to assess your baby’s growth.

Growth in weight

The average weight of a newborn baby is about 3 kg. During the first few days, most newborns normally lose about 8 to 10 percent of their birth weight. They usually regain their weight in ten to fourteen days. Thereafter a normal baby gains 25 to 30 grams per day during the first three months of life; about 20 grams per day between three to six months; about 15 grams per day between six to nine months and somewhat less than that between nine to twelve months. In other words, a baby’s weight doubles in 5 months and triples by her first birthday.

Growth in length

The average length of a newborn baby is 50 cm. A baby gains about 3.5 cm per month during the first three months; about 2.0 cm per month during the next three months; about 1.5 cm per month during the next three months and about 1.3cm per month from the ninth to the twelfth month. The baby is about 60 cm at 3 months, 70cm at 9 months and 73 to 75 cm at 12 months; thus 50 percent gain over birth length occurs by the first birthday. Your baby’s paediatrician will measure your baby’s length on a machine known as an infantometer. He can also do it in a simple way, by using a measuring tape.



Infantometer

Here are some tables to show you the weight, length and head size increments according to age in months -

Source : WHO Growth Standards Tables

Baby Weight

Age	Average (50th percentile)	(5th - 95th percentile)
Birth	3.34 kg	2.60 - 4.21 kg
3 months	6.37 kg	5.24 - 7.20 kg
6 months	7.53 kg	6.61 - 9.48 kg
9 months	8.90 kg	7.43 - 10.63 kg
12 months	9.64 kg	8.05 - 11.53 kg
15 months	10.31 kg	10.59 - 12.34 kg
18 months	10.93 kg	9.10 - 13.12 kg

Baby Height (Length)

Age	Average (50th percentile)	(5th - 95th percentile)
Birth	49.88 cm	47.77 - 52.09 cm
3 months	61.42 cm	58.06 64.79 cm
6 months	67.62 cm	64.01 - 71.14 cm
9 months	71.56 cm	68.27 - 75.65 cm

12 months	75.79 cm	71.84 - 79.65 cm
15 months	79.04 cm	74.98 - 83.30 cm
18 months	82.25 cm	77.82 - 86.60 cm

Baby Head Size

Age	Average (50th percentile)	(5th - 95th percentile)
Birth	34.46 cm	33.37 - 36.55 cm
3 months	40.51 cm	38.56 - 42.45 cm
6 months	43.33 cm	41.32 - 45.33 cm
9 months	44.99 cm	42.93 - 47.06 cm
12 months	45.06 cm	43.95 - 48.7 cm
15 months	46.40 cm	44.65 - 48.95 cm
18 months	47.37 cm	45.18 - 49.55 cm

The need to measure baby's head size

A proper growth of the head is essential for normal brain development. If the growth of her head is below the normal there may be some problem with her brain development. On the other hand if the head is growing more than the range, there may be a problem with hydrocephalus, a medical condition, or certain syndromes. Sometimes it is normal also. But if your baby's head size is less or more than the normal range you had better discuss it with the doctor.

What is the value of percentile charts shown on vaccination

cards?

When your baby's length, weight or head circumference gains are plotted on these charts, it tells us whether the baby's growth is within the normal range; whether your baby is falling behind or is growing too fast. Suppose your baby's weight is falling on 50th percentile; it will mean that out of 100 babies of her age 49 are weighing less than her and 50 are weighing more than her so your baby is an average baby. If her weight is falling on 97th percentile it will mean that 96 babies out of 100 are weighing less than her so she is much above the average and you should check that she is medically OK. On the other hand, if her weight is on 3rd percentile it will mean she is much below the average and you should look for any medical reasons. You can learn to use these charts with a little help from the paediatrician.

How to use percentile charts?

In the following pages you will find length, weight and head circumference charts issued by WHO which have been recommended as reference charts for Indian Children. Plot your child's length(height if over one year), weight or head circumference on the chart and match with the age and see where the two lines meet; this is where your child ranks.

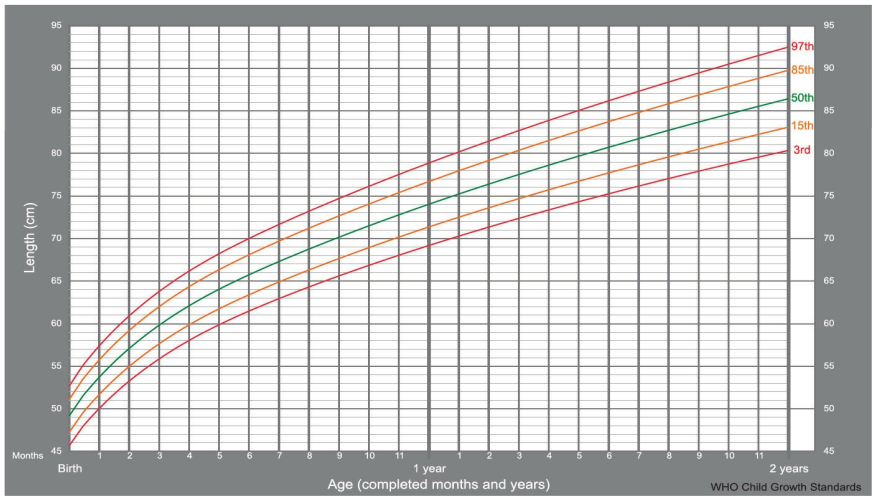
Growth of low birth weight babies

Most low-birth weight babies grow healthily and normally and catch up with their normal- birth weight peers in time. However, very low-birth weight babies may remain smaller than their peers for some years. Babies who are low birth weight and also small for date are especially likely to remain smaller throughout life. When assessing growth of the baby these factors should be kept in mind.

Length-for-age GIRLS

Birth to 2 years (percentiles)

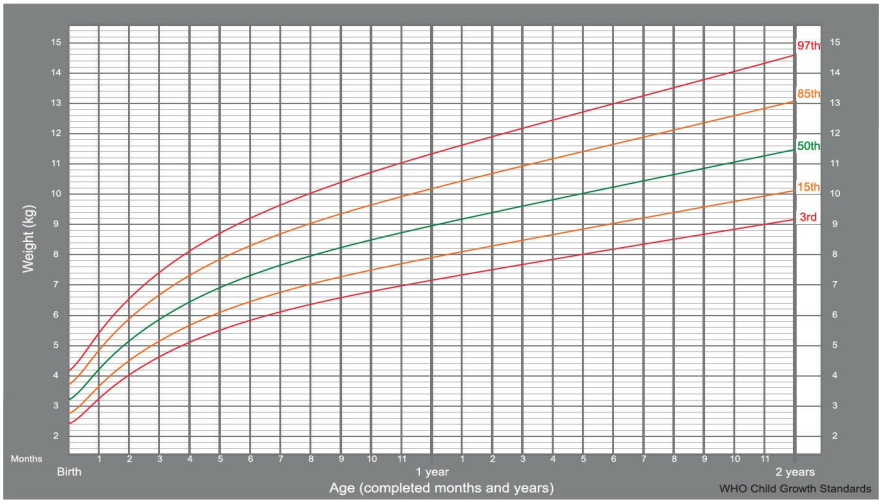
World Health Organization



Weight-for-age GIRLS

Birth to 2 years (percentiles)

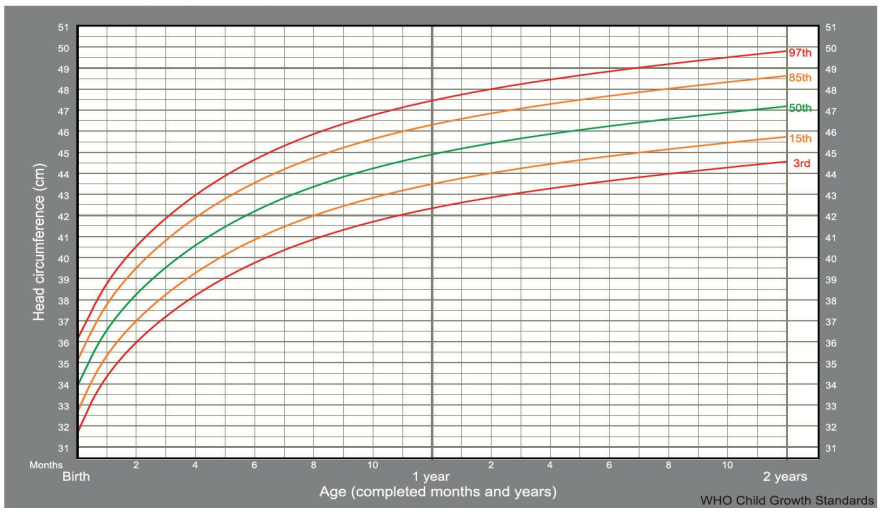
World Health Organization



Head circumference-for-age GIRLS

Birth to 2 years (percentiles)

World Health Organization



Chapter - 16

Your Baby's Developmental Milestones

"First you have to teach a child to talk. Then you have to teach it to be quiet."
~ Prochnow

Dear mom, in this chapter you will learn how to assess your baby's developmental milestones. These are rough guidelines; there are variations in the age at which babies attain their milestones. So, if you feel your baby has not attained a particular milestone, do not panic; but try to assess if she has attained other milestones expected of her age? If yes, then it is OK and you can wait. If she continues to fall behind in her milestones, then you should consult a doctor.

What is the difference between development and growth?

Development refers to how babies are able to do more complex things as they get older. Development differs from growth, which only refers to the baby getting bigger in size.

When we talk about normal development, we are talking about developing skills such as:

- **Gross motor skills:** using large groups of muscles to sit, stand, walk, and run to keep balanced and change positions.
- **Fine motor skills:** using hands to eat, draw, dress, play, write and do many other things.
- **Language skills:** speaking, using body language and gestures, communicating and understanding what others say.
- **Cognitive skills:** Thinking skills: including learning, understanding, problem-solving, reasoning and remembering.
- **Social :** Interacting with others; having relationships with family, friends, and teachers; cooperating and responding to the feelings of others.

What are developmental milestones?

Developmental milestones are a set of functional skills or age-specific tasks that most children can do when they are within a certain age range. Your paediatrician uses milestones to help check how your child is

developing. As I said earlier although each milestone has an age level, the actual age when a normally developing child reaches that milestone can vary quite a bit. Remember - every child is unique!

FOUR WEEKS

- Follows a moving object with his eyes
- May turn towards familiar sounds or voices
- Responds to loud sounds
- Can see things about 10 inches away
- Stares at object but does not reach for it
- Loves skin-to-skin contact

EIGHT WEEKS

- Smiles at you
- Makes cooing sounds
- Listens to sounds
- Eyes follow a moving object at 180 degree
- Can lift head 45 degrees
- Hands start to unfold
- Can briefly hold rattle
- Communicates moods
- Studies faces
- Your baby’s personality becomes more obvious

TWELVE WEEKS

- Can somewhat hold his neck
- Listens to music
- Says aah, ngah etc
- Knows difference between parents and strangers
- Stops crying when you come in to the room

- Plays with hands
- Can hold rattle longer
- Swipes with arms
- Can briefly bear weight on legs

SIXTEEN WEEKS

- When held erect pushes with feet
- Laughs out loud
- Shows displeasure at breaking of social contact
- Gets excited at the sight of food.
- Reaches with a good aim
- Transfers objects from hand to hand
- Grabs toes
- Pushes away disliked actions e.g.wiping nose
- Displays expression of decision-making

TWENTY EIGHT WEEKS

- Rolls over
- Crawls or creep crawls
- Sits briefly
- Reaches out and grasps objects with thumb & finger
- Transfers objects from hand to hand
- Can drink from a cup
- Makes two syllable sounds.

- Studies objects.
- Mimics facial expressions.
- Exhibits moods with varied sounds and body movements
- Likes her reflection

FORTY WEEKS

- Creeps or crawls
- Sits for long time
- Can stand and cruise around holding on to furniture
- Says mama, dada (repetitive consonant sounds)
- Plays hide and seek
- Waves bye bye
- Walks with one hand held / a few steps independently.

ONE YEAR

- Pulls to stand and cruises along furniture
- Stands alone and takes several independent steps
- Can climb upstairs,
- says “no” and shakes head
- Can follow simple direction
- Copies and imitates

- Likes to look at books.
- Starts to exhibit a temper when angry.
- Laughs at funny things
- Meaningfully uses “mama” or “dada”
- Responds to simple commands e.g. “come here”

EIGHTEEN MONTHS

- Can run freely
- Climbs stairs
- Speaks many words
- Speaks two word sentences
- Imitates elders
- Begins to show independence in behaviour

Development in preterm babies

If your baby was born preterm and you are assessing her developmental milestones, you will have to count the number of days or weeks she was preterm and deduce from her age. For example if she was born four weeks preterm and her age now is six months, you will consider her age as five months to assess her development.

Most of the preterm babies grow up with no ongoing health or developmental disability. The more mature your baby is when she is born, the lower her risk. For example if your baby was born at 32 weeks, her risk of a persistent problem is only one in 50. If your baby was born at 28 weeks, her risk of a persistent problem is one in ten. And if she was born before 26 weeks, her risk of a significant problem (a severe eyesight or hearing problem, severe

learning disability or cerebral palsy) is between one in four and one in ten.

Advantage of developmental assessment

The advantage of developmental assessment is that children who have some kind of developmental problem can be diagnosed early and help or treatment can be given to them sooner rather than later. Cerebral palsy, serious learning difficulty, attention deficit disorder (with or without hyperactivity), tics, clumsiness (dyspraxia), speech difficulty, hearing problems, eyesight problems (such as short sight, long sight, astigmatism, squint and poor 3-D vision, retinopathy of prematurity) are all more common in babies who are born with a very low birth weight. This makes regular eye checks especially worthwhile.

Chapter - 17

Successful Breastfeeding

"The calf loves to suck its mother's milk; its heart blossoms forth upon seeing its mother."
- Sri Guru Granth Sahib

Dear new mom, I hope you are aware of the fact that breastfeeding is best for your baby and it is beneficial for you too in many ways. You have seen lots of advertisements of chubby babies fed on formula milk and you may presume that formula milk makes them healthier. But all those advertisements are misleading propaganda from formula milk manufacturers. In the following chapter you will read about the wonders of breast feeding; always remember – **Mother's milk is the best!**

BREAST FEEDING BENEFITS

To Baby

- It is so natural. Breast milk is made by the human body to feed human babies; so naturally, it is the perfect food for human babies.
- It is more easily digested than any formula.
- It is a complete food and provides all the essential nutrients in the right proportions and in a form that is easily digestible.
- It promotes bonding between mother and baby.
- It satisfies baby's emotional needs too and promotes natural bonding with the mother.
- Medical research has shown that babies fed on breast milk have on an average higher IQs than babies fed on formula milk, cow milk or other milks.
- Babies on breast milk have no diaper rash problems.
- Breastfed babies have fewer cases of food allergies and eczema.
- During breastfeeding, antibodies pass from mother to baby, providing protection against respiratory illness, diarrhoea, and ear infections.
- Breastfeeding protects babies from future diabetes mellitus, heart disease, Crohn's disease, ulcerative colitis, lymphoma, celiac disease etc (the list is growing.....).
- Breastfeeding provides additional protection against Sudden infant death

syndrome (SIDS).

To Mothers

- It is so convenient; you can feed your baby anytime anywhere.
- With breastfeeding, no preparation or clean up is needed. There is absolutely no need to prepare, warm or transport bottles.
- It's free! In today's costly world what a relief!
- It helps you feel close to your baby and learn your baby's signals.
- Milk production in breastfeeding mothers burns calories and helps in weight loss after pregnancy.
- It helps your uterus return to its pre-pregnancy size much faster.
- Women who breastfeed reduce their chances of premenopausal breast cancer, cervical cancer, and osteoporosis.
- Breast feeding builds up breastfeeding mother's self-esteem and self-reliance.
- Breast feeding is a great defence against post partum depression.
- Breast feeding helps family planning by delaying ovulation. Delayed ovulation helps postpone the next pregnancy as long as you are breastfeeding.

DISADVANTAGES OF OTHER MILKS

Dear mom, I hope you are not planning to give cow, buffalo or formula milk to your baby. All these can actually be harmful to her. Even giving a single bottle feed a day can harm your child. The disadvantages of other milks are as follows -

- Other milks are of animal origin and not naturally suited for the human baby. The composition of these milks - the amount of protein, fats, vitamins and minerals is not optimally suited to the growth and health of human babies.
- Feeding with other milks exposes the babies to infections through contamination.
- Other milks are deficient in antibodies that fight off various infections.

- Babies fed on other milks have a higher incidence of loose motions, respiratory infections and allergies.
- Feeding with other milks makes your baby prone to some chronic conditions, such as diabetes, heart disease and allergic conditions later in life.
- Feeding with other milks may cause problems in breastfeeding as the baby gets confused between the mother's nipple and the artificial nipple.
- As said earlier, it takes more time and money to provide other milks to the baby. Moreover, other milks, whether formula or animal, need to be prepared for the baby to consume.

I hope you are now fully convinced that cow, buffalo or formula milk are all inferior to mother's milk.

The Ten Commandments of Breast Feeding

- You will breastfeed your baby within an hour after delivery.
- You will feed your early yellowish milk known as colostrum to the baby. It is very beneficial for her.
- You will understand that a baby who consumes only breast milk (no additional water) and urinates a minimum of six times in twenty four hours is getting enough breast milk.
- You will understand that the baby does not need anything other than breast milk for the first six months of life. Breast milk provides adequate nutrition and immunity for the baby.
- You will not worry about frequent watery motions in an exclusively breastfed baby, as long as the baby is gaining weight, is active and is passing urine adequately.
- You will feel free to breastfeed whenever and for as long as the baby chooses. This practice is known as demand feeding.
- You will not practice scheduled feeding i.e. offering milk according to the clock.
- You will ensure that your baby gets not only foremilk which comes in the beginning and is rich in carbohydrates, vitamins and proteins, but also hind milk which is rich in fat and calories. Therefore, you will

allow the baby to keep suckling from one side until she leaves the breast on her own, so that she gets enough hind milk.

- You will avoid bottle-feeding entirely. It is harmful for your baby.
- You will understand that bottle-feeding may be a direct cause of breastfeeding failure.

Some basics you should understand before you breastfeed

Positioning

Positioning the baby properly is the first step towards successful breastfeeding. Unwrap the baby and take off extra clothes before putting her to your breast. This will allow your baby the freedom of movement and skin to skin contact with you. Put the baby in a semi-upright position with her stomach touching your stomach, her lower shoulder touching you, and her upper shoulder close to your breast.

Latching on

The baby must take the nipple as well as the areola (the dark part surrounding the nipple) in the mouth. It is important that the baby's lips cover the lower part of the areola rather than the upper part of the areola. It is the baby's lower jaw that does all the suckling.

Frequency and duration of feeds

Allow your baby to feed as often as she wants, day or night. Normally a baby will ask for milk every two to three hours. Allow the baby to feed as long as she wants. This will ensure that she gets enough hind milk, and also a feeling of security.

PROBLEMS DURING BREASTFEEDING

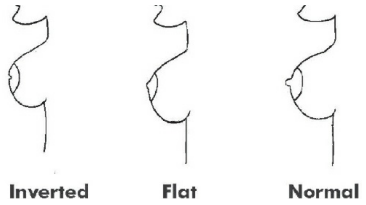
Dear mom, you may feel frustrated due to certain problems which may come up during breast feeding. But be assured that all these problems are preventable or correctable if due care is taken. Some of these problems relate to the shape and size of the nipple and others relate to breast tissue as a whole. Here are guidelines on how to deal with them.

Flat nipple

Flat nipples are not a problem because the nipple is only the ejection outlet for milk. It is the areola, the dark part around the nipple which contains the milk. The baby should be able to pull it out to form the teat. Check whether your nipples are protractile or not. First touch your nipples and try gently to pull them. If your nipples stand erect, they are protractile and fit for breastfeeding.

Inverted nipple

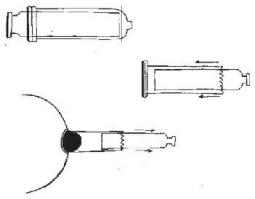
Inverted nipple is the type of nipple that does not stand erect and on trying to pull out it sinks back deeper into the breast. True inverted nipples are not common. Usually during pregnancy; the nipple becomes normal and protractile. If they remain inverted, they can be treated in consultation with your doctor.



How to correct inverted nipples

1- **Manual method:** Pull out the nipple and roll it between your fingers a few times a day and before feeding.

2- **Syringe method:** Use a 10 cc plastic syringe. Pull off its piston. Cut its barrel half an inch from the nozzle. Now, insert the piston from the newly cut end of the barrel. Place the other opening of the barrel firmly around the nipple of the breast and withdraw the piston gently. The nipple will slowly protrude into the barrel due to suction. After one minute, push the piston back to release the syringe from the nipple. You should repeat this procedure four to five times before each breastfeed. The nipple will become prominent in this way. Now, hold the nipple and areola together in your hand so as to form a teat and put your baby to the breast.



Syringe Method-Correcting Inverted Nipple

Long nipple

A long nipple may create problems as the baby may suck on the nipple only and may not take enough of the areola into her mouth. If you have this problem, bring your baby closer to the breast to enable her to take more of the areola into her mouth.

Sore and cracked nipples

This problem happens due to the incorrect position of the baby at the breast when your baby sucks only at the nipple and does not take the entire areola into her mouth. If you continue to feed in the wrong way it may even lead to mastitis and breast abscess. Sometimes sore nipples may be due to fungal infection.

Avoiding sore/cracked nipples

Make sure your baby is attached properly to your breast; that the entire or most of the areola is in her mouth. If you feel pain during breastfeeding it means that the baby is improperly attached to your breast. You should wait until your baby releases the breast, or you can detach baby's mouth from your breast by guiding your finger gently into the baby's mouth to break the suction, carefully avoiding injury at the nipple and to the baby. Restart breast-feeding in the correct position. If your child is attached properly, should not be painful for you. Breastfeeding should be continued on the affected breast as sore nipples usually heal after correcting the suckling position.

Treatment of sore/cracked nipple

- Breastfeed in the correct position.
- Wash the nipple and areola twice daily with lukewarm water.

- Expose to air and sun.
- Apply a drop of your hind milk on the nipple after each feed.
- Continue to breastfeed.
- If sore nipple is due to fungal infection an antifungal cream will help.
- Do not use medicated creams as they may worsen the soreness and draw away the attention from the crucial issue.

Fullness and engorgement of the breast

Dear mother, your breasts produce milk continuously and if enough milk is not removed in time, engorgement of breasts may result. The engorged breast is shiny and painful.

Causes of engorged breasts

- Insufficient breastfeeding.
- Delayed starting of breastfeeds.
- Other milk (cow, formula etc) given to baby while breastfeeding.
- Long intervals between feeds.
- Early removal of the baby from the breast while breastfeeding.

If the breast is engorged the baby is not able to feed properly due to poor attachment and inadequate emptying leads to decreased production.

Avoidance and treatment

The only way to avoid this problem is to breastfeed effectively but if you can’t breastfeed due to an unavoidable reason, you should empty your breasts by manual expression or a pump.

Blocked duct

This problem happens when the baby does not suckle well on a particular segment of the breast, or thick milk blocks the milk duct leading to pooling of the milk and a painful hard swelling.

Treatment :

- Massage the swelling frequently towards the nipple to promote drainage

of the breast.

- Suckle your baby frequently on the affected breast and in different positions to improve the emptying of the breast.
- Take sufficient rest.
- Wear loose fit clothes.

Swelling of the breast

If the blockage of the duct continues, infection supervenes and the breast becomes swollen, painful and hot to touch. The mother may develop fever with chills. This condition is known as mastitis. An abscess may form soon in the breast.

Treatment :

- Massage the breast and express the milk frequently.
- Continue to breastfeed your baby.
- Ice application may help you.
- You may need antibiotics; consult a doctor.
- Incision and drainage (a surgical procedure) of the abscess is sometimes required.
- Start breastfeeding from the affected breast as soon as possible.

Leakage of milk from the breast

It is a harmless & natural phenomenon and will disappear in a few weeks. You do not have to stop breastfeeding. It commonly occurs when it is time for a feed or when intervals between feeds are increased and also when you have loving thoughts about your baby. You can wear bright coloured clothes on the upper part of your body and tactfully camouflage it. Use clean pads to soak milk leakage. But remember to change the pads often so they do not cause harm to your breasts by wetness and infection.

Blood in the milk

This is not a common phenomenon.. Some mothers notice a little blood in

their milk, although there may be no nipple fissure or wound. It is usually a harmless and self-limiting condition. You should continue breastfeeding.

HOW TO INCREASE BREAST MILK PRODUCTION

Dear mother, you will now learn how to increase your own milk production in a natural way. You will also learn what factors hamper your milk production.

What increases milk production?

- Feeding within one hour of delivery or as soon as possible.
- Frequent feeding, even at night.
- Proper attachment to the breast.
- Support from family and health professionals.
- Mother's confidence in herself.
- A relaxed and happy mother.
- A well balanced diet for the mother, without superstitions and restrictions.

What decreases milk production

- ✓ Delayed introduction of breastfeeding.
- ✓ Infrequent breastfeeding.
- ✓ Use of other milks.
- ✓ Improper technique of breastfeeding.
- ✓ Use of other fluids like glucose, water and honey.
- ✓ Painful breasts due to faulty breastfeeding.
- ✓ Lack of confidence & support.
- ✓ A tensed and unhappy mother.
- ✓ Restricted eating due to superstitions and restrictions.
- ✓ Smoking.
- ✓ Allergy medications.
- ✓ Sleeping on stomach (prone position) also decreases milk production.

MEDICATIONS WHICH HELP MILK PRODUCTION

There are certain medications which help boost milk production. Your obstetrician will tell you which is best for you. Here is some information about them :

Domperidone

This is an economical and effective medicine. It has negligible side effects on mother and none on the newborn in the normal doses. It increases prolactin levels and thence breast milk production.

Metoclopramide

This potent medicine has largely gone out of use due to its side effects and availability of equally effective yet safer medicines. Common side effects are gastric cramping and diarrhoea. Long-term use for more than two weeks is generally not recommended. This drug is generally used for nausea and vomiting. Metoclopramide, when taken by mother, goes into baby's body through breastmilk. But amounts are negligible and cause no side effects.

Medicinal herbs

There are certain herbs like Fenugreek (methi in Hindi, a common ingredient of after delivery foods offered to women in India) and Satavari. Satavari is available in Indian market with many names. Your obstetrician or paediatrician can advise you about the use and brands. However, please use caution while using herbal treatments and purchase products only from reputable companies. Just like any medication, adverse effects can occur with herbs. Garlic also has been found to increase the sucking time of the baby at the breast, which may help increase milk supply.

THE ART OF BREASTFEEDING

Breastfeeding is a natural process; most mothers adapt to it naturally while others may need some guidance. There are many ways to breastfeed and once you start you will develop your own style to suit both you and your baby.

It may take some time to master the technique, and you may have starting

trouble. But do not let problems discourage you. Your determination and persistence will soon reap rich dividends. The most commonly used position for breastfeeding is the cradle position. I will explain below how to use this position -

Cradle Position

How to begin and how to proceed

Step 1 :	First of all make yourself comfortable. You may sit cross legged on the floor; on a chair or on the bed to feed your baby.
Step 2 :	Make sure your back is supported.
Step 3 :	Loosen the baby's clothes so that the baby can move freely and feel your body.
Step 4:	If you are feeding your baby from the right breast, use your right arm to cradle the baby. Hold your baby on your arm so that her head and neck rest in the curve of your elbow, her back along your forearm and her buttocks in your hand. This is known as the cradle position.
Step 5:	Turn the baby's body towards you so that her abdomen touches yours. Make sure her head and neck are well supported.
Step 6:	Raise the baby to your breast so that the baby's mouth can easily reach the nipple and areola. You can take the help of a pillow or raise your thigh if you are sitting crossed-legged on the floor. You may use your free hand to hold your breast or to fondle your baby

once she is well attached.

Step 7: When the nipple touches the baby's lips or her cheek, the baby's mouth opens by reflex to draw the nipple and part of the areola in to form a teat. This is known as "attachment". The teat (nipple and areola) is the outlet point to the milk stored in the breasts so you must remember that both the nipple and areola should go into the baby's mouth. Proper attachment is vital to successful breastfeeding. Flawed attachment leads to most of the problems related to breastfeeding, such as failed breastfeeding, sore nipples, swelling and congestion of the breast etc.

How do you know you have a good attachment?

- Baby's mouth is wide open.
- Baby's chin touches the breast.
- Nipple and most of the areola are inside baby's mouth.

Wrong attachment Correct attachment

- Mother is comfortable and feels no pain while breastfeeding.

Tips on establishing good attachment:

- Do not lean forward and do not push your breasts towards the baby.
- Raise the baby so that the baby's mouth is at the level of the mother's breast.
- Support your breast so that your fingers are below the areola and your thumb is above it, so as to fully expose the areola.
- Touch your breast to the baby's mouth so the baby will open it.
- Put the nipple and areola into the baby's mouth while holding the baby closer to your breast (by supporting the baby towards you).

Remember, if your baby is still not properly attached, you will feel pain while breastfeeding. If that happens, interrupt the feed by pulling down baby's jaw gently to break the suction and release the nipple. Try again….

Other Positions

There are other positions for breastfeeding which are equally good. Mothers who do not find the cradle position comfortable can try these positions :

Modified cradle:

This position is useful if your baby is small or prematurely born. In this position, if you are feeding your baby on the left breast, your right arm and hand support the baby. The baby's head is in the palm of your right hand, your right forearm supports the back and buttocks. Your left hand is free to hold the breast or fondle the baby. Now you can breastfeed your baby effectively.

Modified cradle position

Clutch hold or football position:

If you have twins, this position will suit you more. You can feed both your twins simultaneously with this method. If you are feeding the baby on the right breast, hold your baby's head in the palm of your right hand. Tuck your baby's body below your right arm and support it with your forearm. Now you can breastfeed your baby effectively. Do the same for the second baby on the other breast

Clutch hold position

Side lying position:

This position is suitable if you have had an episiotomy or caesarean section. Both you and your baby lie down on your sides, facing each other. The baby's mouth should be in line with the nipple and areola and the baby's abdomen should be touching your abdomen. Use your forearm and hand to bring the baby closer to you. Now you can breastfeed your baby effectively.

Side lying position

FAQ ON BREAST FEEDING

1. How frequently should 1 feed my baby?

Dear mom, you should feed your baby whenever she demands. This is called demand feeding. Her frequency of feeding may vary from one to three hours. While being responsive to your baby's cues to feed, also be aware that some premature, low birth weight or sick babies don't have the strength to wake up and cry for milk. Some apparently healthy newborns also may sleep more and demand milk less frequently. If your baby's hunger cues are slight or

nonexistent, be sure to wake her at least every three hours and encourage her to nurse. Such babies need close monitoring to make sure they are gaining enough weight. Keep in mind, too, that babies are just hungrier on some days than on other days and will want to drink more than usual. These days are called “frequency days” and are thought to precede growth spurts. Researchers from the Institute for Social and Economic Research (ISER) at the University of Essex and Oxford University conducted a large-scale study into the effects of scheduled versus on-demand feeding. The study concluded that babies who are fed on demand have higher I.Q.s than babies fed on schedule. So, the bottom line is that you should feed on demand.

2. When should I first put my baby to the breast?

You should give your first breastfeed within the first hour of birth or as soon as possible.

3. Should I discard the initial milk, which is yellow and thick and comes in the first few days, or feed it to my baby?

This milk is called colostrum and is highly recommended for your baby- it is very nutritive, has a number of antibodies to prevent infections and many other beneficial factors for the baby. So do not discard it but offer it to your baby.

4. Should I offer my baby things like janam ghuti, glucose water, honey, or other milk in the first few days?

If your baby is a healthy, normal newborn these are not required and may be even harmful. A healthy, normal baby has a store of calories in its body and can withstand some delay. The initial yellowish milk, colostrum, has extra calories and is sufficient for the baby even if available in small quantities in the beginning. If your baby is a sick or low birth weight baby, then please follow your doctor’s advice.

5. Why should I avoid giving my baby other feeds in the initial days?

The reason is that your production of milk depends on how often your baby

suckles at your breasts. If you put the baby to the breasts more often, your breasts will produce more milk and vice versa. If you give your baby feeds. such as honey or glucose water, the baby's appetite is satisfied and she loses interest in sucking at the breasts. This results in delayed and reduced milk production in your breasts. Besides, these feeds may also introduce infection into your baby if hygienic precautions are less than perfect.

6. Should I put the baby on one or both breasts in one feeding?

You should feed the baby on one breast for as long as she wants. The first part of the milk, called foremilk, which flows when the baby starts to breastfeed, is watery and contains more of proteins and carbohydrates. The later part, called hind milk, contains more of fat. It is necessary that baby gets foremilk as well as hindmilk, which is only possible if she completely empties one breast. Allow the baby to feed for as long as she wants at one breast. If the baby releases the breast on her own but still wants to suck and is awake, then offer the other breast. If the baby is satisfied by feeding on one side, then, at the next feed, offer the other breast first.

7. How long should one breastfeed last?

As long as the baby wants to suckle, which could take ten to fifteen minutes or as long as thirty to forty minutes. Thus, there is no fixed duration of a breast feed. Each baby has a different feeding pattern. But a sick baby also takes longer to feed, so keep a keen eye to know the difference.

10. Can I give the bottle only for a day or two? I can stop giving the bottle when my milk starts coming freely.

Sorry but no! When a baby is fed from a bottle, the baby sucks only at the nipple and there is an easy flow of milk. But when a baby suckles at the breast, she has to suckle at both the nipple and the areola and she has to work harder. Giving a bottle will create nipple confusion. The baby may lose interest in breastfeeding, will not suckle well at the breast and you may have to resort to bottle feeding forever.

11. My breast-fed baby passes semi-solid and sometimes watery

stools frequently. Does it mean she has diarrhoea? Should I stop breast feeding? Should I seek some treatment for it?

No; a healthy breast fed newborn may pass stools ten or twelve times a day. If the baby is feeding well and gaining weight, there is no need to feel worried. This is not diarrhoea. The frequency of passing stools varies greatly and can change as the weeks pass. Some babies may pass stools once in two or three days. Some babies initially pass stools ten or fifteen times a day and after a few days may start passing stools once in two days. All these patterns of stool passage are normal.

12. My two-day-old newborn is passing black coloured stools. Should I feel worried?

No, you should not. The colour of a baby's stools changes in the first week. The first stool is blackish green and is called meconium. The colour of the stools slowly changes to green and then to bright yellow within three or four days.

13. Why can't I give some water to my baby, especially in hot summer months?

No, the milk itself is about 90% water. There is no need to give water separately. Moreover, the first part of the breast milk, called foremilk, is mostly water and satisfies the baby's thirst.

14. When should I start giving water to my baby?

You can start giving some water to your baby after six months when you also introduce additional foods to her.

15. How can I know if my baby is getting enough milk?

The best way is to check the weight of the baby every week. A properly fed baby should gain an average of 25 to 30 grams per day in the first three months. Another way is to count the number of times your baby passes urine. A baby who is exclusively breastfed should pass dilute urine more than six to eight times a day. A baby who is getting enough milk is happy, playful and

sleeps well.

16. What should my diet be if I am breastfeeding?

Remember -you have to eat for two. Eat heartily while you are breastfeeding. Do not be restricted by any superstitious beliefs. You should have a well-balanced diet with sufficient proteins, which could be in the form of milk, pulses, chapatti (bread), dalia (porridge) or eggs and meats for non-vegetarians. You should also have sufficient fruits and vegetables, and drink plenty of water.

18. Can I breastfeed if I am ill from viral fever, malaria or other fevers?

Yes, you should continue to breast-feed your baby. Most fevers are not a contraindication for breastfeeding. Moreover, the antibodies present in your milk will protect your baby from infection. There are very few situations where breast-feeding is not advisable. I have discussed this point in details in chapter 20.

19. Should I breastfeed if my baby is ill?

Yes, you must continue breastfeeding. Breastfeeding is actually beneficial when the baby is ill because it provides nutrition and antibodies, which help the baby to fight the infection. However, if your baby is severely ill and refuses to take breast milk, then you must urgently seek the advice of your paediatrician.

20. I have heard that breastfeeding spoils a woman's figure. Is it true?

No! This statement is hearsay and far from the truth. On the contrary breastfeeding improves the figure of a mother. A mother who breastfeeds will lose body fat and regain her figure faster. A breastfeeding mother should wear fitting brassieres that will support her breasts.

21. How long should I continue breastfeeding my baby?

Breastfeeding should continue up to two years and beyond. In the first six months, there should be exclusive breastfeeding, giving the baby nothing other than breast milk. After six months other forms of food must be added to the baby's diet but breast feeding should continue.

22. When can I start giving my baby solid foods?

When a baby is six months old, milk alone is not sufficient to meet the nutritional requirements. Hence you should start giving other food items. But breast feeding must continue.

23. I am a working woman. How can I continue breastfeeding when I get back to work?

It is possible to keep your baby on 100% breastfeed. You can use EBM i.e. expressed breast milk. Express your milk before going to work. While you are away, a trained caretaker can feed this milk to the baby. Breast-feed your baby immediately before going to work and immediately after coming back. You can read more about this in chapter 18.

24. Can I use pacifiers? I find them very convenient to pacify my fussy baby.

Pacifiers are not recommended for your baby. They can interfere with breastfeeding. Babies who are given pacifiers tend to suckle less frequently, which results in a reduction of milk production. Frequent pacifier use can even result in babies with slower growth rates, compared to babies who are not offered pacifiers. There is also increased incidence of thrush (an oral yeast infection) and middle ear infections among babies using pacifiers. Another problem for many babies is "nipple confusion"; switching between breast and pacifier is difficult for many babies. It's easier to suck from an artificial nipple because it requires less tongue movement and energy, but when the baby tries to use the same motion at the breast, it results in less milk and a mother with sore nipples.

25. Are there foods to avoid while breastfeeding?

Generally speaking, you should eat a healthy, fresh, well-balanced diet with a

lot of variety and without restrictions. Although you will get plenty of unsolicited advice about dietary restrictions while you are breastfeeding, there aren't any foods that a mother should routinely avoid, except alcohol (an occasional drink is OK) and excess of tea and coffee (two cups a day is quite alright). Babies can be fussy and can have excess gas in a natural way and not because you had a particular food the previous evening. Occasionally, a baby may be sensitive to something in the mother's diet. The most common sensitivities are to protein antigens that are found in cow's milk, soy, wheat, fish, corn, eggs and nuts. If you believe your baby is reacting to something in your diet, eliminate that food for two or three weeks, then try it again.

26. If I or my husband smokes, will it harm my baby?

Yes, it will surely harm your baby and in more ways than one. So, if you or your husband are smokers, you had better rid of this habit or be very discreet in how you smoke.

Chapter - 18

Expressed Breast Milk

All being drinks the mother-dew Of joy from Nature's holy bosom;
— Schiller. Ode to Joy (1785)

Dear Mom, there may arise situations when a new mother has to express her milk for her baby. Please read more about it in the following lines.....

Why will you need to express breast milk?

There are a number of reasons why a breast-feeding mother might need to express her milk

- The baby may be premature and too small to suck properly. Your expressed milk can be fed to her through a tube.
- The baby may be sick and may not breastfeed adequately. You can give her expressed milk using a spoon or a healthcare worker may give it using a tube.
- Some babies with a cleft lip or palate find it difficult to suck and need to be fed expressed milk with a special bottle or specially shaped teat.
- You may need to leave the baby with someone for some time. Your expressed milk can be fed to the baby with a cup and spoon.
- You may be working outside the home and may wish to provide breast milk to your baby while you are away.
- You may wish to express a small amount of milk to mix with your baby's first solid foods.
- To relieve severe engorgement.
- To relieve sore or cracked nipples.

HAND VERSUS PUMP EXPRESSION OF BREAST MILK

Hand expression is the safest and the best way of expressing milk. Even if you are working full time and for long hours, you may express enough milk by hand expression. However, if for some reason, you can not do hand expression, then you may use a pump, which could be hand operated, battery operated or electrical

Advantages of manual expression

There are many advantages to manual expression over pump expression .....

- It is so natural; most mothers are more comfortable with it.
- Mechanical pumps may cause discomfort and may be ineffective if their quality is poor.
- Mechanical pumps, if not sterilized properly, may contaminate the milk.
- Skin to skin contact is more stimulating than the feel of the plastic, hence manual expression usually allows for an easier milk ejection.
- It's so convenient.
- It's ecologically superior.
- It's portable. How can a mother forget her own hands?
- Best of all, it's free!

HOW TO EXPRESS MILK MANUALLY

Please go through the following steps

- Choose a container with a wide mouth.
- Wash the container thoroughly with soap and water and dry it.
- Wash your hands thoroughly.
- Sit or stand comfortably. Hold the container near the breast in front of and below the nipple to collect milk.
- You have to soften and massage the breast. Apply a few drops of breast milk over the breasts. Start at the top of each breast and massage towards the nipple. Do this below the nipple as well. Do this with flat hands. Work around both breasts doing this. Gently shake the breasts while leaning forward.
- Now, to drain the milk sinuses, place your thumb about one inch above

your nipple and your first two fingers about one inch below your nipple.

- Now first press the thumb and fingers inwards towards the chest. This action will help to fill up the milk sinuses.
- Then compress the milk sinuses (which are below the areola) by squeezing the areola with your thumbs and fingers together.
- Squeeze and release several times until the milk starts to drip out. Collect milk from one breast for at least three to five minutes. Repeat this procedure on the other breast.
- Keep rotating the thumb and fingers around the areola so that the milk is drained from all the milk sinuses. One sitting of milk expression should take twenty to thirty minutes.

  Keeping the baby close or fondling the baby just before milk expression will increase the amount of the milk expressed. And be patient, expressing milk takes time. At first, no milk may come, but after pressing on the sinuses beneath the areola a few times, milk starts to drip out and may even spray out.

How long and how often should you express milk?

It usually takes about 20 minutes to express both the breasts. To stimulate and maintain milk production, you may express milk frequently - at least 8 times in 24 hours, if your need is more.

How should expressed breast milk be stored?

Expressed breast milk (EBM) can stay in good condition longer than animal milk because it contains antibodies. You can put EBM in a feeding bottle with closed tops and put in a cool place. You can keep EBM at room temperature for eight hours or in the back of a fridge compartment at four degree centigrade for twenty four hours (do not keep in a door shelf). If kept in a freezer at less than zero degree Fahrenheit or minus five degree centigrade it can last at least a month. Although the process of freezing will destroy some of the beneficial antibodies, it will still be much healthier and preferable to formula, cow or buffalo milk. Do not freeze any EBM if you are going to use it within twenty four hours.

To thaw frozen milk, place the bottle or bag in a bowl of warm water, run it

under warm tap water, or defrost it in the refrigerator overnight. Don’t use the microwave for warming—it kills the nutrients in the breast milk. It is not recommended to boil breast milk either. After warming, gently shake the milk to mix the fat globules with the rest of the milk and it is ready for your baby. Don’t make a habit of saving partially drunk portions for later use; throw away any milk that’s left in the baby’s bottle.

Chapter - 19

Using A Breast Pump

"If your baby's beautiful and perfect, never cries or fusses, sleeps on schedule and burps on demand, an angel all the time, you're the grandma."
~Theresa Bloomingdale

Dear new mother, in this section you will read about various types of breast pumps. Hand expressions is the best method of breast milk expression. However, if you cannot do it for some reason and want to use a pump, then you must have a working knowledge of various types of pumps.

A breast-pump could be hand-operated, battery-operated or electrical. Some battery-operated pumps can also function with an electrical connection. Deciding which breast pump is right for you depends on how often you plan to use one and how much time you can spare for expressing. If you work full-time and long hours, you may need a fast-working electric pump. But if you only need to pump a few ounces, manual expression or a manual pump may be sufficient. Although pumps are faster and more efficient they are liable to contamination if not sterilized properly; so take care of hygiene and sterilization with any kind of pump you use.

Also remember, whether you use an electric or a hand pump, you still have to stimulate your breasts as you would if expressing by hand. You must do this before you apply the pump to your breast. When using a pump, be careful not to exert too much suction on the nipple. Pumps can occasionally be a bit fierce and crack or split the nipple.

To use an electric pump, put a suction cup over your breast, turn the machine on and let it do the work of extracting milk into an attached container. Manual pumps also use a suction cup, but you extract the milk by using a squeeze mechanism or operating some other device rather than relying on a motor powered by electricity. On an average it takes fifteen to forty-five minutes to pump both breasts. Good breast pumps mimic the sucking action of a baby and do not cause pain.

The old types of hand pumps with a rubber bulb are cheap but their bulbs do not produce sufficient suction. They are difficult to clean and sterilize and are not very effective. The milk which collects in them is often contaminated. Do not use such a pump.

TYPES OF BREAST PUMPS

1. Manual Hand Pump

- Small and portable, easy to carry around.
- Most economical
- Good pump if you need to pump for a short time or only once in awhile.
- Some models can be used with one hand and others with two hands.
- Can tire the hands and wrists hence it should not be used by mothers with hand, wrist or arm problems.

A manual pump

2. Battery Operated Pump

- A good pump, more convenient if you need to pump more often or for longer | periods
- Can be used with one hand.
- Small and portable, easy to carry around.
- You need to replace batteries often, so it is best to buy one that also has an electrical connection.

A battery operated pump

3. Electric Pump

- It is a heavy duty machine.
- Best pump to use if you cannot be with your baby right after birth or if

you plan to pump for a long time.

- Can pump both breasts at the same time. This will take less time to pump.
- It is costly, so most mothers prefer to rent it rather than buy it.

An electric pump

IMPORTANT

Do Not Use A Pump With A Rubber Bulb! The suction on this pump is too strong and can damage your nipples.

Chapter - 20

When Giving Breast Milk Is Not Impossible

Thinking that baby formula is as good as breast milk believes that thirty years of technology is superior to three million years of nature's evolution. It is an act of female power, and I think of it as feminism in its purest form."
- Christine Northrup M.D.

Although breast feeding is best for your baby, there are rare situations where breast feeding may not be possible or recommended. They are as follows :

- Mother is receiving certain treatments for cancer.
- Mother has expired or is severely ill.
- Mother is mentally disturbed.
- Adopted child.
- Mother is having AIDS.
- In certain thyroid disorders, you can breast-feed, for example if you are hypothyroid and you are taking thyroid supplements. However, if you are taking radio active iodine or certain other anti cancer drugs you should not breast feed. Please check with your doctor.

In such situations other milks may be used. You can choose from cow, buffalo or canned milk. Canned milk is fortified with iron, vitamins and micronutrients suitable for babies. Their protein content is also suitable for babies. There is less risk of contamination and infection with them. But they are quite expensive. Cow milk, although much used in India, has poor iron content, which may cause anemia in the babies. It also has a higher protein and sodium content which could put a strain on the kidneys. It may be over diluted especially by illiterate mothers and the water used for dilution might not be safe. But it can be used for economic reasons. Buffalo milk is not so suitable since it has high protein and high fat content. Still, if you have no other option you should dilute it with boiled water in 3:1 ratio (milk: water).

Canned milks come in three varieties: Formula I (from birth to six months), Formula II (six months onwards) and even Formula III (one year onwards). Each variety is produced keeping in mind the nutritional requirements specific to the age of the baby. Then there is special milk for low birth weight and preterm babies. These are manufactured based on the special requirements of low birth weight babies. Many companies make canned milk.

Milk Type	Human's Milk*	Cow's Milk*	Buffalo's Milk*	Formula Milk (a popular brand)
Moisture (gms)	88.0	88.0	81.0	90.4
Protein (gms)	1.1	3.2	4.3	1.7
Fat (gms)	3.4	4.1	8.8	3.4
Carbohydrates (gms)	7.4	4.4	5.0	7.41
Energy (kcal)	65.0	67.0	117.0	67
Minerals (gms)	0.1	0.8	0.8	0.4
Calcium (mgs)	28.0	120.0	219.0	73.0
Phosphorus (mgs)	11.0	90.0	198.0	53.0
Iron (mgs)	0.5	0.2	0.2	0.8
Vitamin A (IU)	137.0	174.0	160.0	230.0
Thiamin (mgs)	0.02	0.05	0.04	0.05
Riboflavin (mgs)	0.02	0.19	0.10	0.1
Niacin (mgs)	0.1	0.1	0.67	
Vitamin C (mgs)	3.0	2.0	1.0	7.0

*Goplan et al. (1981). Nutritive value of Indian Foods. National Institute of Nutrition, Hyderabad-7 (A.P.), Indian Council of Medical Research. P.O. Box No. 4508. Assari Nagar, New Delhi-16.

Spoon and cup vs. bottle?

If you have to use anything other than breast milk, you should use a cup and spoon, rather than a bottle, to feed the baby. Paediatricians around the world are against the use of bottles because it leads to contamination with resultant diarrhoeas and other infections. This risk increases even more when the family is uneducated and poor. Moreover, the use of the bottle leads to the problem of aerophagy (swallowing air along with the milk).

However if you find the bottle much more convenient, you can take care of sterilization and you have decided to use it anyway, then I must give you some tips on bottle feeding.

The main demands of bottle-feeding are organization and preparation.

- You have to have six to eight bottles.
- The bottles and nipples have to be kept clean and ready.
- Bottles left out of the refrigerator longer than one hour and any milk that the baby doesn’t finish must be discarded.
- Prepared bottles of milk should be stored in the refrigerator for no longer than 24 hours and should be carefully warmed just before feeding.

Equipment needed for bottle feeding

- six to eight, eight ounce bottles with caps. You may keep fewer if you

can wash them more frequently. You may choose reusable bottles or disposable bottles with sterile plastic liners.

- Nipples. One for each bottle with a few spares. Prefer silicone.
- A bottle brush and a nipple brush.

Tips for safe bottle-feeding

- Use clean, fresh and hygienic milk.
- If using formula milk check the expiry date on the can. Do not buy leaky, damaged cans and dented containers.
- Before opening the can, wash the tops of the cans with detergent and hot water, rinse well and dry.
- The hole of the teat should be of the correct size. Turn the full bottle upside down without shaking. If the milk flows instead of dripping, the nipple hole is too large; discard the nipple. If the baby seems to be working hard, tires easily during sucking and her cheeks cave in because of a strong suction vacuum; the nipple hole may be too small. If the hole is right sized the milk should drip out at least one drop per second.
- Avoid feeding babies in their sleep; most babies fed like this get tooth decay.
- Position the baby in the crook of your arm so that she is very close to you and in a semi-upright position; she will swallow less air and feel a special closeness to you.
- To lessen arm fatigue and present different views of the room to your baby, switch arms at each feeding.
- Have only one person feed the baby, preferably yourself, so that she can bond with you.
- Discard leftover milk to prevent breeding of bacteria.
- Know when to quit. Babies know when they've had enough. Avoid the temptation to always finish the bottle. If the baby falls into a deep sleep near the end of the feeding, but has not finished the bottle, stop. Often babies fall into a light sleep toward the end of the bottle feeding but continue a flutter type of sucking. Wait till the baby leaves the bottle.
- Rinse bottles and teats with warm water after use for easier cleaning.

- A bottle of milk should never be heated in a microwave. The bottle can heat unevenly and leave “hot spots”, which can burn a baby’s mouth.

Sterilizing

A dishwasher with a water temperature of at least 180°F (82°C) will adequately sterilize bottles and accessories. If not using a dishwasher, try the following sterilization process.

- Sterilize six bottles, or a daily supply, at one time
- After a feeding, thoroughly rinse the bottle and nipple under warm water and leave them on a clean towel by the sink, ready for your next sterilizing session.
- Wash all the equipment in hot soapy water, rinse thoroughly in hot water, and remove the milk scum with a bottle brush.
- Pad the bottom of a large pan with a towel or dishcloth. Immerse open bottles, nipples, and other equipment in the pan (place bottles on their side to be sure that they are filled with the sterilizing water) and boil for ten minutes with the pan covered. Cool to room temperature while still covered. Remove the bottles and nipples with tongs or a spoon and place the bottles upside down on a clean towel with the nipples and caps alongside. Let the equipment dry.

Choosing nipples

Rubber and silicone nipples come in a variety of contours, all claiming to imitate the natural action and shape of a mother’s breast. The easiest is the standard bulb type with a wide base that best allows the baby to form a tighter seal.

For a full-time bottle-feeding baby, experiment with various types of nipples to see which one works best for your baby. If the baby is fed breast milk and also other kinds of milk with a bottle, use a nipple with a wide base.

To lessen the rubbery taste of an artificial nipple and to sterilize them, boil for five minutes before first use. If the nipple becomes cracked or torn, discard it. Some nipples come with a variety of hole sizes to fit the type of liquid and the age of the baby.

What is baby bottle tooth decay(caries)?

Baby bottle tooth decay is a leading dental problem for children under 3 years of age. It occurs when a child's teeth are exposed to sugary liquids, such as formula, fruit juices and other sweetened liquids for a continuous, extended period of time.

The practice of putting a baby to bed with a bottle, which the baby can suck on for hours, is the major cause of this dental condition. The sugary liquid flows over the baby's upper front teeth and dissolves the enamel, causing decay that can lead to infection. The longer the practice continues, the greater the damage to the baby's teeth and mouth. Treatment is very expensive.

Chapter - 21

Introduction Of Semi Solid Foods

“A baby will make love stronger, days shorter, nights longer, bankroll smaller, home happier, clothes shabbier, the past forgotten, and the future worth living for”
~ Anonymous

Dear mother, when your baby is around six months old you should introduce semisolids to the little one’s diet. The reason for this is that mother’s milk alone is not sufficient now and addition of semi solid foods is essential to meet nutritional requirements and maintain growth and development of the baby. Hence at this stage, while breast feeding should be continued, supplementary home-made semi-solid foods should be introduced. This process is called as weaning. Delay in introduction of additional foods in an exclusively breastfed infant results in malnutrition. Improper introduction of these foods is fraught with dangers of diarrhoea(due to infection from unhygienic preparation), and malnutrition (due to inadequate caloric intake caused by the low frequency of feeding and low calorie density of the additional foods).

TIPS FOR BETTER WEANING

1. Continue breastfeeding

Continue breastfeeding for as long as possible even after introducing your baby to semi-solid foods. Ideally, you should try to breastfeed till the child is two years of age, because breast milk continues to remain an important component of the infant’s diet.

2. Prepare weaning foods from the usual family diet

The weaning food should be cooked from what the family eats in a mashed (softened) form and in a number of varieties. For example, you can give dal and rice separately or a combination of dal with rice or khichri. Family pot feeding i.e. giving the everyday food eaten by the family in a mashed form, but without spices or condiments, is best since it is economical and timesaving. Moreover, the infant gets used to eating what the family eats.

3. Prefer family food over canned foods

Canned foods (commercial weaning foods) offer no extra advantage and family food is so fresh and economical.

4. Introduce new foods one by one

Do not introduce too many new foods all at once. New foods should be introduced one by one.

5. Do not force food on the baby.

If she does not like a particular food do not force it on her. Try another food instead.

FAQ ON WEANING

1. How can I improve the nutritive value of weaning foods?

The nutritive value of weaning foods can be enhanced by mixing cereals with pulses (to improve protein value) and by adding oil, fat or sugar (to increase caloric density) and green vegetables (for vitamins especially A, B and C, and iron). But do not give these items in a watery form. Diluting a weaning diet i.e. use of watery gruel, lentil or vegetable water will make your baby weak.

If you are a non-vegetarian, use of animal milk, milk products, fruits, eggs and fish or meat will enrich the food. The bulk of the weaning food can be reduced by malting grains or cereals.

2. How frequently and how much should the baby be fed?

Each baby differs in the amount they eat, based on how much they need to eat. Leave it to the baby to take as much food as frequently as she chooses. The baby's growth and development are good indicators of adequate food intake.

3. Is a vegetarian diet suitable for young children?

As long as you ensure your baby is receiving a good balance of different food types, a vegetarian diet can provide all the nutrients your baby needs for growth and development. It is important to make sure that that protein, fat and carbohydrates are in the right proportions.

4. What about feeding during illnesses?

You should continue to feed your baby during common illnesses like diarrhoea and respiratory infections, unless your paediatrician advises against it for any special reason. Food should not be diluted. Despite anorexia, the infant can be encouraged to eat small quantities (which can be given more frequently). But do not force the baby to eat food as it will result in vomiting and more food aversion.

WEANING CALENDAR

The following calendar can be followed by mothers.

i) Around six months

Start with semi solid preparations of pulses (dal), rice, a mixture of dal and rice cooked separately or together (khichri), a porridge of wheat (dalia), suji, ground rice, ragi, millet, etc. Some mothers mistakenly believe that they should give only the water from cooked pulses and rice but that notion is wrong and will lead to malnutrition. Rice and pulses should be malted. These foods can be enriched with oil/fat, animal milk, mashed fruits like banana, apple, cheeku, and papaya or boiled and mashed vegetables. One or two teaspoonfuls are enough to start with and the quantity and frequency should be gradually increased. At the end of this phase, the baby should be consuming about 50 to 60 g of food (half a cup) per day.

ii) Seven to nine months

From 7-9 months of age, the baby should gradually become used to eating what the family eats--rice with dal, khichri, a little chappati soaked in dal, curds, mashed vegetables and fruits, enriched with some oil, fat and green vegetables. They need four to five weaning meals a day, in addition to regular breastfeeding.

iii) Nine to twelve months

Around nine months, babies can start chewing on soft food. You do not have to mash the food any more but you can chop and pound it. You can give a variety of family foods four to five times a day and increase the quantity gradually. By their first birthday, young children should be eating foods

cooked for the family four to five times a day. A child of one to two years needs about half the food that the mother eats.

PREPARATION AND STORAGE OF WEANING FOODS

You are advised to maintain strict hygiene while preparing or storing food. Wash your hands thoroughly before you prepare food or feed the baby. The kitchen and utensils must also be clean. The foods should be preferably freshly boiled or cooked. If food is not freshly cooked and is more than two hours old, it should be reheated thoroughly before consumption.

Diet Table (after 6 months)

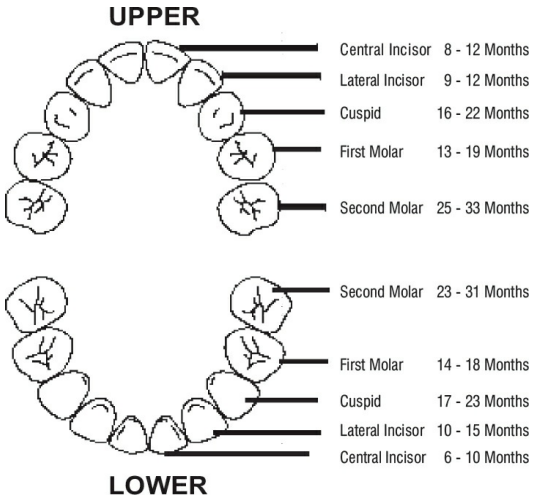
Please see in the Annexure (Page 194)

Chapter - 22

Dental Care For Your Baby

“Parents are the bones on which children cut their teeth.”
~ Peter Ustinov

Your child’s first teeth will show between four and sixteen months (usually around six months). The two bottom front teeth will be the first to appear and this will be followed by the four upper teeth in four to eight weeks. She will continue to get new teeth until she has all twenty of her primary teeth when she is three years old, with most children getting about four new teeth every four months. You should begin cleaning your child’s teeth by wiping them with a moist washcloth or a soft child’s toothbrush, without tooth paste. Do not permit your child to sleep with a bottle, since the sugar in the milk will pool around their teeth all night and cause cavities.



Eruption of baby’s teeth

Importance of primary teeth (baby teeth)

It is very important that primary teeth are kept in place until they are lost naturally. These teeth serve a number of critical functions -

- Maintain good nutrition by permitting your child to chew properly.
- Aid in speech development.
- Help the permanent teeth by saving space for them. A healthy smile can help children feel good about the way they look to others.

Why your baby’s dental care is important

Proper care of a child's deciduous teeth (also known as "baby" or primary teeth) is very important as these teeth hold space for the future eruption of permanent teeth.

- ✓ If a baby tooth decays or is removed too early, the space necessary for the permanent teeth is lost and can only be regained through orthodontic treatment.
- ✓ Infected baby teeth can cause the permanent teeth to develop improperly, resulting in stains, pits, and weaker teeth.

When should dental care begin?

According to paediatric dentists, regular dental care should begin when the baby is a year old, with a dental check-up at least twice a year for most children. Some children may need more frequent evaluations and care.

DENTAL CARE GUIDELINES

Birth to six months of age

- Clean the infant's mouth with gauze after feedings and at bedtime.
- Regulate feeding habits (encourage breastfeeding).

Six to twelve months of age

- Clean your baby's teeth after feeding and at bedtime with a gauze or a small, soft-bristled brush. Toothpaste is not required.
- As the child begins to walk, watch out for potential dental and/or facial injuries.
- If the baby is bottle fed, wean her from the bottle by her first birthday.

Twelve to twenty four months of age

- Follow a schedule of dental examinations and cleanings, as recommended by your child's paediatric dentist. Generally, dental examinations and cleanings are recommended every six months for children.
- As your child learns to rinse his/her mouth, and as most deciduous

(baby) teeth have erupted by this age, brushing with a pea-sized portion of toothpaste becomes appropriate.

Diet and dental care

- Provide a balanced diet, and save foods with sugar or starch for meal times.
- Do not put your young child to bed with a bottle of milk, formula or juice.

How can I help my child have good dental health?

- Avoid frequent snacking.
- Brush effectively twice a day.
- Floss once a day. It is not common in India and hence many parents are not aware of it.
- Have sealants applied when appropriate.
- Seek regular dental check-ups.
- Assure proper fluoride through drinking water, fluoride products or fluoride supplements.

THUMB SUCKING

Thumb sucking is common in babies-it has a soothing and calming effect on them. Babies suck their thumb when they feel lonely, bored or sleepy. Most babies stop this habit by four or five years of age. If your child sucks her thumb beyond that age or sucks her thumb excessively, you can talk to your child about breaking this habit. Some tips to help you are as follows.

Avoid scolding: Whenever you see your child sucking her thumb, gently ask her to stop. Avoid scolding, threatening or making fun of it. Such acts may result in aggravating the habit. Your child may use thumb sucking as an attention-seeking measure in future.

Positive reinforcement: Appreciate your child on the days when she has not sucked her thumb. Record those “non sucking days” by marking the calendar on those days. Let your child see the calendar and feel proud of her self-control.

Competing response: Encourage your child to do something else, like squeezing a pillow or a stuffed toy whenever she feels a strong urge to suck her thumb.

What if these techniques do not work?

In some children, thumb sucking is an extremely difficult habit to break and it exasperates the parents. But patience is the key; peer pressure will eventually force most of them to stop this habit.

FAQ ON BABY DENTAL CARE

1. How can I prevent tooth caries from a bottle or nursing?

Encourage your baby to breastfeed or drink milk from a cup; avoid the bottle. Babies should no longer be permitted to breastfeed at will at night, after the first baby teeth begin to erupt. Infants should not fall asleep with a bottle. Drinking juice from a bottle should also be avoided. When juice is offered, it should be in a cup.

2. What kind of toothpaste is best for my child - fluorinated or non-fluorinated?

A child below eighteen months does not need toothpaste; after that they should use a toothpaste not containing flouride. Such toothpastes are available in the Indian market. Children above three years can use fluorinated toothpaste but they should put only a small pea-sized amount of toothpaste on their toothbrush.

Encourage your child to spit rather than swallow after brushing. Avoid toothpastes with flavours that may encourage swallowing. Keep all fluoride-containing products out of the reach of young children. These include toothpastes and mouthwashes.

3. At what age should I take my baby for her first dental check up?

You should do this when her first teeth erupt or latest by her first birthday and thereafter every six months or earlier, if necessary due to any special reason.

4. Why so early? What dental problems could a baby have?

The rationale is that early examination and preventive care will protect your child's smile now and in the future. Dental problems can begin early. A big concern is baby bottle tooth decay or caries.

5. What can I do to relieve pain and discomfort when my baby's teeth erupt?

In most children, teething only causes increased drooling and a desire to chew on hard things, but in some it may cause mild pain and irritability (fever is rare) and the gums may become swollen, tender and itchy. To help relieve discomfort, you can massage her gums with your finger a few times a day. In the west they use hard teething rings, but a massage with a finger is preferable. Most babies do not need teething gels or treatment with pain killers, although you can use them if necessary.

6. What is teething diarrhoea? How can I prevent it?

Teething diarrhoea is the term given to the frequent occurrence of loose motions around the time teeth erupt in an infant. Eruption of teeth in an infant should not directly cause diarrhoea. But infants may get diarrhoea at this time because they touch things, crawl on floors dirtying their fingers and then suck their fingers; or they may chew at dirty objects lying around them. There is another theory about teething diarrhoea; during teething the baby drools a lot and produces a lot of saliva. This excessive saliva causes stools to pass more quickly through the intestines.

7. How often does my child need to see the paediatric dentist?

A check-up every six months is recommended. However; your paediatric dentist can tell you better based on your child's personal oral health.

8. How will I know if my baby is getting enough fluoride?

Your doctor or dentist must be aware of the fluoride levels in your community. But fluoride levels may vary from place to place, so if you are drinking water coming from a borewell, you can ask the manager in charge of the supply to determine the levels and tell you. If the level is deficient, your doctor may prescribe fluoride supplements. But your water may also have excess fluoride and you should be aware of it.

Fluorine deficiency (water contains less than 1 ppm of fluoride) can lead to dental caries and possibly osteoporosis. Fluoridation of water reduces the incidence of dental caries. On the other hand, if water contains excess

fluoride (more than 10 ppm) it may accumulate in the teeth and bones, causing fluorosis.

The earliest signs of excess fluoride are chalky-white, irregularly distributed patches on the surface of the enamel; these patches may, in course of time, turn yellow or brown, producing a characteristic mottled appearance. Severe toxicity weakens the enamel, pitting its surface. Treatment involves reducing fluoride intake; e.g. in areas with high fluoride water levels, patients should not drink fluoridated water or take fluoride supplements.

9. What should I do if my child's baby tooth is knocked out?

Contact your paediatric dentist as soon as possible.

10. What if a tooth is chipped or fractured?

Contact your paediatric dentist immediately. Quick action can save the tooth, prevent infection and reduce the need for extensive dental treatment. Rinse the mouth with water and apply cold compresses to reduce swelling. Try to search and recover the broken tooth fragment and bring it to the dentist.

11. Can dental injuries be prevented?

Yes, to a large extent! Always use a car seat for young children. Require seat belts for everyone else in the car. Child-proof your home to prevent falls, electrical injuries, and choking on small objects.

12. How does a lost baby tooth cause problems for permanent teeth?

If a baby tooth is lost too soon, the teeth beside it may tilt or drift into the empty space. Teeth in the other jaw may move up or down to fill the gap. When adjacent teeth shift into the empty space, they create a lack of space in the jaw for the permanent teeth. So, permanent teeth are crowded and come in crooked. If left untreated, the condition may require extensive orthodontic treatment.

Happy teething .....

Chapter - 23

FAQ on Baby Care

“When babies look beyond you and giggle, maybe they’re seeing angels”
~ Author unknown.

Dear mom, here are answers to some common queries of new mothers

Should I wrap up my baby or leave her free?

Some babies sleep better if wrapped up, especially during their first month. Some like to be free, especially in summer and monsoon. Be flexible; go with what your baby seems to like. You must wrap her up in winters anyway.

As the first few weeks pass, the baby should be unwrapped more and more so that she can move her limbs freely. She will start looking at her hands and will get to know the shape of her body parts better. Some babies, if kept wrapped all the time, may develop fever due to dehydration. This fever will settle down if your baby is kept in a cool atmosphere and is given a few sips of cool water with a cup and a spoon.

My baby sweats a lot. Why so?

Sweating in babies is normal. Some babies tend to sweat profusely on the head but some tend to sweat a lot all over. The cause is not known. Avoid overdressing such babies.

Fan, air-cooler or air-conditioner-which of these is best for a baby?

During hot and humid weather, a fan must be used in the room. An air cooler or an air-conditioner is OK but take care that the baby should be kept a little away from the high airflow these machines generate. Keep the windows open when the airconditioner is not in use and let in a lot of sun and fresh air. Place the baby a little away from the window in order to avoid her being caught in the draught.

What should the temperature of my baby’s room be?

A low to mid 70’s temperature is warm enough as long as the baby is dressed appropriately. For a prematurely born baby the tempera-ture should be a little

higher.

What is bonding? How can I develop it?

Bonding is that special emotion which a baby and her mother develop towards each other when they spend a lot of time together, in physical proximity. To develop it you should do exclusive breastfeeding, talk to your baby as often as possible and take care of her yourself as much as possible rather than rely on hired help.

How should I hold my baby?

You can hold her in whichever way it suits the two of you and keeps her comfortable but take care to support the head and the body well.

Can I give her a drop of brandy off and on?

No, it has no added benefit and may even harm your baby.

My child cries before urination. Is it abnormal?

There is no need to worry over this issue. This phenomenon is quite common among newborns and is, in almost all cases, very normal. Many newborns, till the age of two to three months, may strain and cry before urination, making the mothers believe there is some problem in their urinary tract.

In a newborn, the urge to urinate is misinterpreted by the immature brain as a painful sensation and the baby cries as if in pain although there is no real pain.

This settles down as time passes. You should worry only if the urine stream is poor or if the child keeps dribbling after urination; if this happens consistently you should discuss it with doctor.

My child grimaces and squirms a lot before passing stools.

This is again a very normal phenomenon. Unless the baby is severely constipated (for which your paediatrician may prescribe some laxative) you have to do nothing about it.

I want to apply kajal (Kohl, Soot) in my baby's eyes. Is it OK?

Firstly, you should not believe that kajal makes the eyes large or is beneficial for the eyes in any way. On the contrary, it is harmful. Kajal contains lead which may be absorbed from the eyes (the blood vessels in the eyes are very rich in blood supply) and its excess storage in the body may cause anemia, growth retardation, low IQ, convulsions. Use of a common kajal stick may spread trachoma (an infection of the eyes) from others to the baby. Lastly, you may hurt the baby's eyes while applying it.

I want to feed some water to my baby. Why do paediatricians discourage this?

There is no need to give additional water because milk itself is about ninety percent water. You can start giving water when the baby is six months old. At the same time, you must understand that water as such is not harmful to the baby but it is just not required. So, if a doting grandma has given your baby a spoon or two of water, you do not have to be panicky or call a doctor. Moreover, if a bay has diarrhoea then water, mixed with oral rehydration solution, has to be given anyway.

Should I allow visitors when my baby gets home?

When your baby gets home there will be many well meaning people who want to come and visit. Keep in mind the following:

- People with colds and coughs will have to visit at a later date.
- Your baby may be more sensitive to stimulation and may do better if not

held by many strangers.

- You can limit the number of people who visit at one time and limit the amount of time they spend on their visit.
- Don’t let people drink hot liquids or smoke and hold the baby at the same time.

My baby passes urine very frequently. Is anything wrong?

There is nothing wrong with your baby. Whereas adults can store or concentrate urine in their kidneys, a baby is unable to do this. Hence a newborn urinates frequently and urinates a lot. As the months pass she will pass urine less frequently.

How should I clean my baby’s ears?

You should not try to clean her ear canal at all. Cleaning with a cotton bud may perforate an ear drum. However, you can clean her external ear with a mild soap from time to time.

My baby’s legs appear curved. What should I do about it?

All babies seem to have curved legs until they start walking. If your baby’s legs still look curved when she is more than 18-24 months old, you can discuss it with your paediatrician. It may be due to Vitamin D deficiency.

My baby pulls at her ears an sometimes puts her finger into her ears. Is something wrong with her ears?

Many babies repeatedly pull or poke their ears and parents often presume that something is wrong with their baby’s ear. But most of the times it is just a normal phenomenon; a way of baby discovering her body parts. Rarely, ear pulling may be due to reasons like teething, cold or allergy causing fluid in

the Eustachian tube of the baby, soap retention in the ear or irritation in the ear due to ear wax. Ear pulling due to infection in the ear is an uncommon phenomenon and in that case there will be pain, fussiness, discharge or redness around the ear. If you see discharge coming out the ear of your baby, have her ears checked by a doctor. In any case, if your baby is doing too much of ear pulling, it is advisable to have her ears checked.

Chapter - 24

How to Make Your Home Safe For Babies

“I don’t know why they say ‘you have a baby.’ The baby has you.”
~ Gallagher

Dear Mom, you have successfully raised your baby so far and she is now ready to explore the world. Exploration, though an inevitable stage in a toddler’s life, is not without its dangers. You should begin baby-proofing your home right away. You can start by getting down on your hands and knees, looking at each room from your baby’s perspective before she begins crawling, standing and walking. Please remember that accidents are much more common in babies than in adults The most common injuries to babies are from drowning, falls and head injuries, scalds and burns, accidental poisoning, and foreign objects in the nose, ears and throat.

Here are somehandy tips for you

- Keep first aid supplies and medicines in a locked cupboard, out of reach, and make sure others know where to find the supplies and how to respond in an emergency. Make sure you have poison-proofed your home in every way.
- Reinstall all electrical sockets in your house at a height above a toddler’s reach. Install baby-proof plugs in electrical outlets and keep your baby away from electrical cords.
- Keep pens, scissors, letter openers, staplers, paper clips and other sharp instruments in locked drawers.
- Domestic fires pose one of the greatest risks to children. Children playing with matches and lighters frequently start house fires. Keep matches and lighters out of sight and reach of children. Extinguish and dispose of cigarettes properly. Have an escape route planned(in case of fire), and practice a fire drill. Fit smoke alarms and check them regularly. If possible, install smoke detectors in every bedroom and one near the kitchen.
- Install baby gates at the top and bottom of stairs. At the top of stairs, mount safety gates into the wall because a toddler’s weight is enough to push over a pressure-mounted gate.
- Check for unsafe toys – avoid ones that have lead paint, sharp edges, brittle plastic parts, strings or chains.

- Get rid of walkers. They may harm your baby! As many as 20,000 injuries per year are directly attributed to walkers in the US. Unfortunately, no Indian data is available on this issue.
- Don’t place a baby on any surface next to an open window – a lot of babies fall from windows. Keep furniture and other potential climbing structures away from windows.
- Always check the temperature of bath water with your wrist or elbow before bathing your baby.
- Dispose of plastic bags, such as those used by dry cleaners, to protect your baby who may accidentally slip them on her head and may die of suffocation.
- Use toilet lid locks to prevent children from falling in and drowning in the bowl.
- If you are using a crib, make sure the space between crib slats is no more than 2-3 inches.
- If you are using shelves and bookcases to store baby things, make sure they are anchored to the wall to prevent your baby from pulling them over.
- Keep soft quilts and pillows out of your baby’s crib and play area. Soft bedding can lead to suffocation.
- Keep your baby away from blinds or drapery cords.
- Attach cushioned corner-and-edge protectors to the sharp corners of coffee tables and desks.
- Consider the potential hazard of anything you drop into the bin. If you’re using it to discard batteries, paper clips, plastic bags or other dangerous items, place it out of reach, or in a cupboard that your child cannot open.
- Place colourful stickers on large areas of glass, such as sliding glass doors, to prevent them from becoming “invisible.”
- Put non-slip pads under rugs and mats which don’t already have non-slip backs.
- Never leave things lying on the stairs which could cause someone to trip up. Stairs edges should be made rounded. Damaged or worn carpets should be repaired or removed. Make sure balustrades (structures that support a railing) are strong and do not have any footholds for climbing.

Stairs should always be well lit.

- Hide lamp and appliance cords behind heavy furniture or conceal them. Tall lamps might fall on your baby if she pulls on them, so tie them safely behind furniture.
- The incidence of burns and scalds in young children is much higher than in older children and adults. Hot drink spills cause most scalds. Remember that they are still hot enough to scald a child fifteen minutes after being made. And never ever pass a hot drink to a breastfeeding mum — even a tiny drop of the hot liquid could scald the baby.

Chapter - 25

Toys For Your Baby

"The child's toys and the old man's reasons, Are the fruits of the two seasons."
- William Blake

Experts around the world agree that babies need a variety of toys to enrich their small world and encourage learning. Toys -

- Keep your baby engaged
- Help your baby figure out how things work
- Show your baby how to take control
- Teach your baby new ideas
- Build your baby's muscle control, coordination, and strength
- Teach your baby how to use her imagination
- Teach your baby to solve simple problems
- Help your baby learn how to play by herself
- Set the foundation for learning how to share and cooperate with others

WHAT QUALITIES SHOULD YOU LOOK FOR WHEN SHOPPING FOR TOYS?

- **Long-term play value:** Will this toy hold your little one's attention for more than a few weeks?
- **Durability:** Will it hold up when sat on, thrown, jumped on, mouthed or banged?
- **Simplicity:** Is it easy to play with? Babies don't need complicated toys.

- **Appropriateness :** Does it match your baby's thinking, language and motor skills?
- **Interest:** Will it encourage your baby to think?
- **Stimulation:** How does this toy foster creativity and imagination?
- **Interactiveness:** Does it engage your child or just entertains her as she watches passively?
- **Versatility:** Can your baby play with this in more than one way?
- **Washability:** Is the toy washable? Toys tend to get very dirty!
- **Fit with your family value system:** Does this toy reflect your family's particular values? For example, is the toy environmentally friendly? Does it promote diversity? Are you comfortable with what the toy represents?
- **Novelty:** Is this toy different from others your baby already has? Your baby does not need ten kinds of rattles.
- **Fun appeal:** Is it something that you will enjoy playing with, too? Toys that encourage you to play along with your baby are ideal.

WHICH TOYS FOR WHICH AGE?

1-3 months

- **Rattles:** As she holds a rattle and waves her hands she will hear the noise and start to make a connection between her moving hand and the rattle; she's learning that if you can hear something you can probably see it too. Make sure that all the parts are well attached.
- **Baby gym:** It is a very good early activity toy. Your baby can lie on her back and focus on the brightly coloured shapes. Later on she can reach out, touch and feel the objects.

6-9 months

- **Activity toys:** These toys help your baby to learn to take control of the things around her. Musical mats, shape sorter toys, alphabet bus, press a-button melody toys are some suitable activity toys.

- **Stacking toys:** These activity toys make use of her developing ability to organize the world around her, and develop hand-eye co-ordination. Choose between stacking beakers (which need sorting by size to successfully complete), bricks, or a set of rings of different sizes that fit over a pole. At first your baby will not be able to do them and will need you to show her how. She may then copy you or she may just like to watch or to knock yours down. Over the next few months she will get more proficient at stacking and sorting.

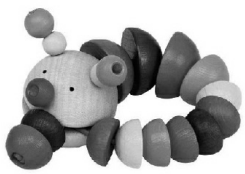
- **Soft toys:** Offer her soft toys with interesting textures and shapes attached. She will use her mouth to explore them and will pass them from hand to hand.
- **Mirror:** Babies find their own reflection fascinating. Choose a safe, unbreakable mirror specially designed for babies.

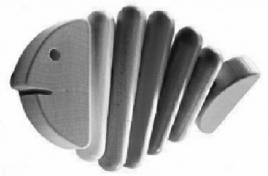
12-18 months

- **Make believe toys:** Imitating and pretending will encourage language skills, thinking through and sorting out ideas and social skills. Toy versions of adult household tools are fun but toddlers are usually

happy to use imaginary props or to borrow yours - you'll need to check for safety first.

- **Role play toys:** Toys which allow your toddler to be in charge of her world. For example, a bus with people to put in and take out, a doll to put in a buggy, a few plastic plates and cups to feed the teddies. This organizing allows her to experiment with how the world works and to be in control for a while.
- **Crayons:** Chunky wax crayons are easy to grip and make a mark no matter how they are held. Initially your toddler will hold a crayon in her fist and make haphazard patterns. Up and down lines, dots and circles will all come later. It's the joy of producing a mark, not what it looks like, that matters.
- **Balls:** Dressing up is a fun filled way of exploring what it's like to be someone else. Old hats, scarves, bags and jumble sale finds are enough to inspire a good game.





- **Ride on toys:** She will now be able to sit astride a four-wheeled riding toy and maintain her balance while she pushes herself along with her feet.

TOY SAFETY TIPS

- Toys with small parts, used for older children, should be kept away from small children.
- For a baby who is crawling or just learning to walk, toy boxes and toy chests can be dangerous traps. Heavy lids can shut and trap small children. Toy boxes, if you keep them, should be of light plastic with well supported lids, sturdy hinges and plenty of holes for ventilation to eliminate such risks.
- Tricycles and riding toys are risky for toddlers who have not yet developed proper co-ordination and injuries are common when using these.

- Babies tend to put things into their mouths and are at a high risk for choking on toys like rattles and squeeze toys.
- Marbles and small balls are also a hazard.
- Parents should choose age appropriate toys and make sure they ride in safe places.
- Balloons are a great choking hazard for children of all ages. Always blow up balloons for children and never allow them to chew on uninflated balloons or broken pieces.
- Make sure that toys are never left on stairs, in doorways, or in walkways.

Before buying toys

- Use the recommended age labeling as a guide and buy only toys suitable for the child's age group.
- Avoid toys with sharp points or edges.
- Check rigid eyes and noses on soft toys and make sure they cannot be pulled off.
- Make sure small parts of larger toys, such as wheels on toy cars, are secure and cannot break off.
- Check the paint or finish on the toy to make sure it is nontoxic, since babies put everything in their mouths. The paint may be lead-based, a serious hazard to your baby who may mouth it and may suffer from lead poisoning.
- Beware of excessively loud toys which may affect your baby's hearing accidentally since babies tend to hold things close to their faces.
- Avoid pull toys with long cords which may be wound around baby's neck accidentally and may strangle her. Pull toys should have either very short strings or rigid handles.
- If a toy is second-hand be extra cautious. If you have any doubts discard the toy.

After buying Toys

- Look for safety messages on toy packaging and follow all instructions.

- Throw away all toy packaging, such as plastic, cellophane and Styrofoam.
- Teach your child to use the toy properly.
- Throw away broken toys that cannot be fixed.
- Make sure that batteries in toys are properly installed.
- Do not allow a child to sleep with a battery-operated toy.
- Supervise children playing with balloons and throw away pieces of broken balloons.
- Remove toys and mobiles strung across cribs and playpens when your baby begins to push up with hands and knees.
- Teach children to put their toys away when not playing.
- Inspect toys regularly.

Chapter - 26

Care of Preterm Babies

As a father and grandfather, I have witnessed firsthand the joy of new life entering the world. I know the pain and apprehension that goes along with premature births.
~ Solomon Ortiz

Preterm babies, also called premature babies or preemies, are born before thirty seven weeks of pregnancy; a full-term baby is born thirty eight to forty two weeks after the mother's last menstrual period (LMP).

There can be many causes of preterm delivery. The mother could be suffering from hormonal imbalance, high blood pressure, some kind of structural abnormality of the uterus, an unhealthy placenta, TORCH infections (which could be toxoplasmosis, rubella, cytomegalo virus, herpes simplex virus 2, and Coxsackievirus), other infections like syphilis, varicella-zoster virus, HIV and parvovirus B-19. infections, chronic illness, poor nutrition, a hectic lifestyle, and a habit of drinking, smoking or drugs. All these factors could lead to a preterm birth. Preterm delivery is also more likely when mother is over the age of thirty-five, under the age of nineteen, or is giving birth to twins. Sometimes the cause remains unknown.

Preterm babies have many special needs that make their care different from that of full-term babies. If they are born extremely premature or if they suffer from health problems, they are kept in a neonatal intensive care unit (NICU). The purpose of the unit is to provide to provide an atmosphere that meets the basic needs of warmth, nutrition, hygiene and protection to assure the safety, growth and development of the baby. Due to advancement in medical science, more than 90% of preterm babies who weigh 800 grams or more now survive. Even those who weigh more than 500 grams have a 40% to 50% chance of survival.

A PRETERM BABY'S BASIC NEEDS

Warmth

Preterm babies cannot maintain their body temperature, and this problem increases as the degree of prematurity increases. In hospital, they are kept in a nursery where radiant warmers or incubators are used to maintain the baby's temperature.

Hygiene

Frequent hand washing and maintaining good hygiene is very important, because preterms have weak resistance and catch infections easily.

Nutrition and Growth

Preterm babies have special nutritional needs because their digestive systems are not mature and also because they grow at a faster rate than full-term babies. The best and most nutritious food for preterm babies is mother's milk but many preterm infants are too immature to feed directly from the breast. These babies are spoon-fed mother's milk or they are given mother's milk using a feeding tube, which is put through their nose or mouth into their stomachs. Breast milk is best for them because it contains proteins and antibodies that promote brain and physical growth and help fight infection. Special fortifiers may be added to breast milk, because preterm babies have higher vitamin, calorie and mineral needs than full-term infants. Preterm babies receive additional calcium and phosphorus and some very low weight babies also receive Vitamin E. The baby's blood substances and minerals, such as blood glucose (sugar), salt, potassium, calcium etc are monitored regularly and the baby's diet is adjusted to keep these substances within a normal range.

COMMON HEALTH PROBLEMS OF PREEMIES

Preterm babies face a number of health problems, mostly because their internal organs aren't mature enough to work on their own. In general, the more preterm the baby, the higher the risk of complications.

Hyperbilirubinemia

Many preterm babies develop a yellowish discoloration of eyes and skin, which is due to high levels of bilirubin in the blood. Although mild jaundice is fairly common in full-term babies, it is much more common in preterm babies. Even moderate levels of bilirubin, which will not require treatment in a full term baby, can cause brain damage in preterms, so jaundice should be diagnosed and treated early. To treat this condition, if the serum bilirubin level reaches a certain level the baby is kept in a phototherapy machine till the levels of jaundice come down. Blood exchange transfusion is rarely needed to treat severe jaundice.

Apnea

Apnoea means stoppage of respiration. It is a common problem with preterm babies who are born before thirty weeks of gestation. During an apnoea spell, a baby stops breathing, the heart rate may decrease, and the skin may turn pale, purplish, or blue. It is usually caused by immaturity in the area of the brain that controls the drive to breathe. Apnoea spells become less frequent as the baby grows. In the NICU, all preterm babies are monitored and treated for apnoea spells. Your baby will be discharged from the nursery only after it overcomes this problem.

Respiratory distress syndrome

Many preterm babies, especially those born before 32 weeks, develop difficulty in breathing. This is called respiratory distress syndrome (RDS). The baby is given oxygen along with other medicines. Sometimes the baby is put on CPAP machine or ventilator and sometimes an artificial surfactant is given to the baby to make the baby's lungs more mature for breathing.

Infection

A preterm baby's immune system is not mature enough to fight germs effectively; hence they can become seriously ill if infected. Infections can come from the mother during gestation, in the process of birth, or after birth. Infection in a newborn is called sepsis. You have to be very careful about hygiene around a preterm baby.

Anemia

Many preterm babies may develop anaemia for a number of reasons. In the first few weeks of life, infants don't make many new red blood cells. If baby is mildly anaemic, oral iron medications will correct this problem; if the baby is significantly anaemic it will be given blood transfusion.

Besides the above mentioned problems, low blood pressure, patent ductus arteriosus, aspiration, feeding difficulties, necrotizing enterocolitis, and the retinopathy of prematurity are the other problems preterm babies face

WHEN YOU BRING THE PRETERM BABY HOME

- Keep the baby warm. It is very important. For this you can keep the baby in a warm room. The temperature of the room should be maintained at 27 degree Celsius. Use adequate clothing with head cap, mittens and socks and monitor the baby's temperature frequently.
- Keep the baby in a clean and hygienic setting; wash your hands before you touch the baby, the baby's food and other items.
- Ensure that the baby is getting enough milk. A baby who is getting enough milk gains thirty grams weight per day and passes urine at least 6-8 times per day.
- Watch your baby's weight, length and head size gains.
- Visit your doctor periodically and follow his advice.
- Immunizations should be given in time.
- Infants who have experienced complications in the NICU may need close observation and follow up
- Hearing and vision examinations should be done periodically.
- Speech and behavioural development should also be assessed in follow up.
- Keep an eye on development of the nervous system, including the achievement of motor skills like smiling, sitting, and walking, as well as the positioning and tone of the muscles.

ROLE OF FAMILY SUPPORT

Caring for a preterm infant is even more demanding than caring for a full-term infant, and family support is a must. The high-risk clinics pay special attention to the needs of the family as a whole.

Chapter - 27

Care of Twins

Twenty fingers, twenty toes, plenty of work Heaven Knows, Four little arms to hold so tight, Four little cheeks to kiss goodnight. Born together, Friends Forever.
~ Unknown

Twins can be real fun; the love, the joy, the squeals, everything in double! But there is a catch! Things can also get real out of hand if you are not well prepared to receive them and you do not have a lot of support. New mothers of twins often find themselves overly-fatigued and even overwhelmed at times. So dear soon-to-be mom, if you are pregnant with twins, it will do you a lot of good to be well prepared, emotionally as well as with supplies and support. Some new parents are brave enough to face it alone and some parents seek help, both attitudes are right as long as they are working and everybody is happy.

Take care of your emotions

The first reactions when the twins have just arrived are of joy and wonder. However, when the initial enthusiasm is ebbing and doting grandma has left, the reality sinks in. As the days and weeks pass, and the work begins to pile up, you may begin to feel a variety of emotions. Mothers of twins may feel overwhelmed, fatigued, sad or depressed, frustrated, angry and lonely.

Though fathers may not feel or express their emotions as clearly as mothers, they too may be suffering from stress. On the one hand, they are affected by the mother's emotions and on the other hand they may feel neglected and a jealous of the attention showered on the babies. They may also feel pressured by the extra financial demands.

Parents, both of them, may at times feel a secret wish for a single child. They may also suffer from guilt for experiencing such emotions.. They assume they must always feel boundless "natural" or "instinctive" love for the twins and may develop self-doubt when the demands of twins exceed their emotional supply. But as negative as all these reactions may seem, it's very important to realize that they are normal responses to the stress of caring for twins or, in rare cases, triplets or more than that. At the same time it's equally important to develop positive coping skills to lighten your double load.

It is important for you to acknowledge and analyze your feelings. Do talk to your partner about how you are feeling, or join a support group. Remember

that caring for twins is a great responsibility and your job is no less important than anyone else's in the world. In course of time you will begin to enjoy your work and your emotions will settle down.

Asking for help

Do not be ashamed to ask for help, You should unabashedly seek it as often as you need it. Luckily, in India, helping hands are plenty; sisters, grandparents, friends and neighbours, are all happy to help. If no such help is available, take hired help which is quite economical in India compared to the western world.

Breastfeeding twins

Many moms of twins have apprehensions about their ability to breastfeed two or more newborns. But their apprehensions are baseless because increased demand actually creates an increased supply of milk and breastfeeding should be an easy task for them. Here are some tips to successfully breastfeed twins :

- ✓ Breastfeed twins at the same time. It will save you precious time during your day.
- ✓ Alternate feeding your babies from both of your breasts. This will give your babies visual exercise and encourage them to drink more milk.
- ✓ Get a twin nursing pillow. Now it is available in India. This pillow supports both babies while you are feeding them and saves you from muscle aches and pain.
- ✓ Talk to a lactation consultant or sign up for a breastfeeding class to make the going a little easier.

Establishing sleep patterns

It will help if you can establish a good sleep routine for your twins or multiples. Try to get your babies to sleep at the same time, if at all possible. This will allow you time to rest or relax. To establish a sleep routine, try out these tips:

- ◆ Engage in soothing behaviours before bedtime arrives. Sing a lullaby, tell them a bedtime story, or just cuddle with them. Eventually, these activities will act as signals to your little ones that it is time to take a

nap.

- Encourage your babies to drift off in your arms before you put them down. They will become drowsy and will gradually fall asleep.
- Let the babies sleep together. Twins will hug or touch one another in bed; this way bonding develops between them and also helps them to fall asleep.
- Ensure an undisturbed sleep for them; keep the room dark and quiet. Avoid handling your babies after they have gone to sleep. If you need to feed them, put them back into bed immediately afterwards.

Take care of yourself

- If you have to provide the best care for your twins, it is important that you be perfectly healthy yourself.
- Maintain a well balanced and nutritious diet as you did during pregnancy. Eat heartily and be sure to take extra calcium and iron. Remember, you have to eat for three, yourself and your twins.
- Sleep at every opportunity; you do not know when you will sleep next
- Be sure to go out at least once every day. Go to the market, visit friends and relatives, in judge in small talk and laugh heartily. You need to break the monotony and get rid of stress which is overwhelming you.

SOME DOs AND DON'Ts

Dos

- Your babies may develop language skills more slowly than full term babies because of prematurity, low birth weight or other factors. You can help them; speak and read regularly to each baby; it will help prevent the delay in language development.
- Encourage individuality. Give them unrhymed different names, not Monu and Sonu.
- Spend time alone with each twin so that they know they are important as individuals and not just as twins.
- Try giving them their own toys and encourage sharing as they become

older.

- Give your twins separate gifts and cakes on their birthday.
- Unfortunately, many twins are born before their due dates. If your twins are born prematurely, be sure to maintain regular health care appointments and keep an eye on their nutrition, development and growth.
- Expect to go on a bit of an emotional roller coaster, which is perfectly normal. In time, your emotions will begin to settle down. Be sure to find time for sleep and take every opportunity to rest.
- Talk to your partner about your feelings and problems
- Find other parents of twins to talk with as you can get many helpful tips from them. You may also want to subscribe to books and magazines about taking care of twins.

Don’ts

- Do not make comparisons between the twins as it may lead to competition and feelings of inferiority between them. For example do not say baby A is fair and baby B is dark.
- Do not show gender favouritism of any kind. Unfortunately, this kind of behaviour is common in India.
- Do not forget the older siblings in the family. Try to set aside time regularly to be alone with them.
- Avoid addressing them as twins. Let them grow as different individuals. Also, for the same reason, avoid dressing them alike.

Chapter - 28

Adopted Baby

“Born not from our flesh, but born in our hearts, you were longed for and wanted and loved from the start”
- unknown

You may have decided to adopt a baby and you are wondering how to ensure she is healthy; you may proceed as follows -

What you should ask?

- Age, ethnic background, education, occupation, height, weight, and medical conditions of the birth parents should be noted.
- Make note of diseases or medical conditions that run in the child’s family.
- What is the health status of the child’s siblings?
- Try to find out whether the birth mother drank alcohol, smoked, or used drugs during pregnancy.
- Try to find out whether the birth mother used any prescription or over-the-counter medications during pregnancy.
- Try to find out whether the birth mother had any sexually transmitted diseases (STDs) that might affect the child’s health.
- Status of birth mother’s prenatal care.
- Results of any tests done during pregnancy.
- Any problems during pregnancy, labour, or delivery.
- The child’s weight, length, and head circumference measurements at and since birth.
- Any medical problems the child has had.
- The results of any medical tests the child has had.
- The child’s development in relation to standard age milestones, such as sitting up, walking, or talking.
- A description of the child’s personality and relationships with others.
- Information about the child’s care since birth.
- Any physical, sexual, or emotional abuse of the child.

What tests should be done?

- Children coming from poor backgrounds should be tested for malnutrition, tuberculosis, giardia, and other intestinal parasites like ascariasis. Babies who are malnourished, who have been in institutional care, or who have lived in cold sunless climates should be tested for rickets. Also check for scabies, fungal skin infections and other skin conditions.
- All babies should be tested for hepatitis B, hepatitis C, HIV and syphilis.
- A complete blood count should be done to check for anaemia. In an anemic child, haemoglobin electrophoresis can be done to rule out defects in haemoglobin structure. Children beyond the newborn stage should also have blood lead levels done for lead toxicity.
- Metabolic screen should be done to rule out thyroid and other metabolic disorders. For more details, please read the chapter on newborn screening.
- A urinalysis should be done to detect kidney disorders and urinary tract infections.
- Has the baby been immunised? If records are not available, most immunizations can be repeated without harm to the baby. Where records exist but are doubtful, blood testing may be done to check antibody titres from previous immunizations. If titres do not exist or are insufficient give the vaccination.
- It's common for adopted babies, especially those coming from poor backgrounds, to get colds, minor infections, upset stomachs, and diarrhoea shortly after arriving in their new homes. This happens because babies are exposed to new types of germs and diet. These sicknesses will resolve gradually as the time passes. If they persist, talk to your doctor.
- Hearing and vision screening should be done. The American Academy of Paediatrics recommends hearing screening for all newborns and an eye exam in the first six months of life and this applies to adopted babies too.
- Carry out developmental evaluations. Children who have lived in foster homes or institutions are at risk for developmental delays.

- Assess the child's psychological status and needs. Has the child suffered from abuse or neglect in previous foster home? The effects may not surface for months or years after you bring the child home, so take care. Discuss this aspect with a psychologist....

Summary : Adopted babies should be evaluated for

- Anaemia
- Blood lead levels
- Hepatitis B and C
- HIV
- Rickets
- Syphilis
- Thyroid conditions
- Tooth decay
- Tuberculosis
- Intestinal parasites
- Impaired hearing and vision
- Metabolic disorders
- Psychological problems
- Foetalalcohol syndrome or foetal alcohol effects

Chapter - 29

Dealing with Sibling Rivalry

Siblings are the people we practice on, the people who teach us about fairness and kindness and caring, quite often the hard way.
~ Pamela Dugdale

Older siblings may experience strong feelings of jealousy when a new baby arrives in the family, because most children at this age prefer to be the only child in the family. They don't want a younger sibling to share your time and affection. This is called sibling rivalry. The situation of a new baby arriving in the family is especially stressful for the firstborn and for siblings less than 3 years old. They feel the newcomer is stealing all the attention, love and gifts which were their privilege so far.

How do they express it?

- ✓ The older sibling may show it in many ways -by teasing, pushing, snatching the baby's items, specially her toys, and even hitting the baby to "get even" with her for stealing their parents' affection.
- ✓ She may resort to misbehaving or regressing. Regressive acts include jumping on the sofa when you're trying to nurse the baby, sitting in the baby's seat, or refusing to use the potty after she has been doing it for months. She may act like a baby again and may suck her thumb or wet and soil her bed.
- ✓ She may want to be held and carried, especially when the mother is busy with the newborn.

PREVENTION

During pregnancy

- ☞ You have to use a lot of subtle psychology to prepare your older child for the change in his life.
- ☞ Talk with your child about your pregnancy, tell her that she will get a new sibling soon who will give her company so that she won't feel lonely, and such other things which will arouse a happy anticipation in her. Let your child feel your baby's movements.
- ☞ Your older child has to learn to live without you at times. Move her to a different room or new bed at least a month before the baby's birth.

- If your older child is old enough to get admission to a play group or nursery school then do it well in advance of the birth.
- Praise your child for any mature independent behaviour, such as using the toilet, feeding or dressing herself, and playing games.
- Don’t make any demands for new skills (such as toilet training) around this time. You may postpone these changes until your child has made a good adjustment to the arrival of the new baby.
- Explain to your child where you will go and who will care for her when you go to the hospital.
- Read books together about what happens during pregnancy and after the baby is born.
- Involve her; encourage your child to help you prepare the baby’s room
- Look through the family albums and talk with her about her first year of life.

While you are hospitalised

- Phone your older child often from the hospital.
- Let your older child visit you and see the baby in the hospital if the rules of the hospital allow this.
- If Hospital rules do not allow this send a snap of the new baby to her.
- Ask your husband to take your older child on special outings like a visit to the park, zoo etc.
- Let others in the family tell her that mummy will be coming back to bring her a gift of the new baby.

After coming home

- Involve her in the home coming.
- When you return home, try to be with her for the first few minutes. Someone else can carry the new baby into the house.
- Give her a gift “from the new baby.”
- Ask visitors to also give attention to her.
- Encourage her to open the baby’s gifts.

The first months at home

- Make sure that the father and other members of the family spend extra time with her during the first month.
- Give her lots of physical affection throughout the day.
- Don't exclude her from your world when you are attending to the baby. Involve her, talk with her. When you are nursing or bottle-feeding the baby, read a story, play a game, or do a puzzle with your older child.
- Give her extra attention that she needs. Make her feel more important. Try to give her at least thirty minutes a day of quality time. Take her out for a walk, talk to her, hug her, and look through her baby album with her.
- Encourage her to fondle and play with the new baby in your presence. Allow her to hold the baby after making a safe position for them. But do this occasionally; not too often.
- Avoid such warnings as "Don't touch the baby." It is important to show your trust. But be cautious at the same time; you can't allow the sibling to carry the baby unless she is big enough and capable of it.
- Involve her as a helper. Encourage her to help with tasks such as bathing and drying the baby, finding a clean diaper, or finding toys. She would love it. At other times encourage her to feed or bathe a doll when you are feeding or bathing the baby. Tell her the baby likes the older sibling very much. Make comments such as "Look how happy she gets when you play with her," or "You can always make her laugh."
- Don't ask older child to be quiet because the baby might wake up. Your older child may resent the baby for this. Newborns can sleep well even in a noisy atmosphere.
- You will have to accept baby like behaviour, such as thumb sucking or clinging, as something your child needs to do temporarily. Do not criticize her.
- When your child behaves aggressively towards the newborn, stop her politely. Tell her "Good children do not hurt babies." You may send her out on some pretext for a few minutes. Don't spank your child or slap her hand at these times. If you beat her, she will try to repeat the same with the baby as revenge. For the next few days don't leave the two of

them alone.

- If older sibling is old enough you can discuss her feelings about the baby. Suggest an alternative behaviour: “When you’re upset with the baby, come to me; I’ll love you.”

Chapter - 30

Other Issues with Your Baby

"Don't stand unmoving outside the door of a crying baby whose only desire is to touch you. Go to your baby. Go to your baby a million times. Demonstrate that people can be trusted, that the environment can be trusted, that we live in a benign universe."
- Peggy O'Mara

How Do You Know Your Newborn Is Perfectly Healthy? (Newborn Screening)

Newborn screening is the practice of testing newborns for certain harmful or potentially fatal disorders that aren't otherwise apparent at birth but can be diagnosed after a blood test. The aim is to diagnose disorders as early as possible, to prevent eventual serious consequences by timely intervention. Screening is not a confirmatory diagnosis and requires further investigations. Disorders for which screening is done can be of different types. Some disorders are metabolic and interfere with the body's use of nutrients to maintain healthy tissues and produce energy; others are hormonal, blood disorders, infections in mother's uterus, hearing loss etc. In general, these disorders can hinder an infant's normal physical and mental development in a variety of ways. Some parents can pass the gene for a certain disorder to their children without knowledge of it. A thorough test will check for about forty disorders but normally, due to the high cost of these tests, parents test for a few common disorders. Even though these conditions are considered rare and most babies are given a clean chit, early diagnosis and proper treatment can make the difference between lifelong impair ment and healthy development.

In most of the developed countries, there is a system of screening all babies for common disorders before discharge from the hospital. In India, routine newborn screening is not common, in government as well as private hospitals, although facility for screening is available in many private laboratories. The common disorders found in newborn screening in India are Hypothyroidism, Congenital adrenal hyperplasia, G6PD, Homocysteneimia, Hyperglycinemia, MSUD, PKU, Biotinidase deficiency, Galactosemia, Cystic fibrosis, Sickle cell disease, Toxoplasma, hearing disorder etc. If you want your newborn to be screened you can request your doctor for the same.

Cord Blood Banking

Cord blood bank is a facility which stores umbilical cord blood for future

use. Stored cord blood is currently used to treat blood cancers & others disorders like leukaemia, sickle cell disease, thalassemia, lymphoma, other cancers, immune system disorders and metabolic disorders. Research is on to make use of cord blood in diabetes, rheumatoid arthritis, heart injury (heart attack), brain injury (after stroke, trauma etc) and a number of other diseases. In India only private cord blood banks are available at present and the procedure is quite costly. In developed countries, public cord blood banking is also available and is supported by the medical community.

Banking cord blood in private banks is a personal choice made by both parents. Private Banks store cord blood with a link to the identity of the donor, so that the family may retrieve it later if it is needed. The parents have custody of the cord blood until the child is an adult. The cord blood might someday be needed by the donor baby, or it could be used by a relative.

Recently, private cord blood banking has come under criticism because these companies are doing aggressive marketing and have created hype about this service; promising more than it is likely to deliver. The fee is hefty; In addition to a large initial processing and banking fee, the parents may have to pay an annual storage fee. Some European countries have not allowed private cord blood banking. The American Academy of Paediatrics also does not recommend it.

It will be interesting to read the statement of the American Academy of Paediatrics on cord blood banking “Families may be vulnerable to emotional marketing at the time of birth of a child and may look to their physicians for advice. No accurate estimates exist of the likelihood of children to need their own stored cells. The range of available estimates is from 1:1000 to 1:200,000. Empirical evidence that children will need their own cord blood for future use is lacking. There also is no evidence of the safety or effectiveness of antilogous cord blood transplantation for the treatment of malignant neoplasm. For these reasons, it is difficult to recommend that parents store their children’s cord blood for future use”.

Preventing Obesity In Your Baby

2011 Institute of Medicine (USA) report on “Early Childhood Obesity Prevention Policies” says that nutritional Intelligence is to be inculcated in children from their very first year, waiting up to school age may be too late. The IOM goes on to advise, “The foods and beverages that infants are offered

during the transition to solid foods are important for setting the foundation for eating patterns later in life; those that become familiar early in life will tend to be preferred to those that are unfamiliar."

Once I was judge at a baby show. An irate mother came to me and complained that her child, one year old, was thirteen kilogram in weight and was looking "healthiest", and yet, had not got any prize. I had to explain to her that her child was not healthiest just because he was weighing more than other children; rather he was unhealthy and overweight. Hapless mother did not know that her child's extra weight was likely to have serious consequences in later life. Unfortunately many children learn food habits in the first and second year which are difficult to rid of in later life. Obesity is linked to mental health problems, diabetes, heart disease and cancer. It is necessary that parents take precaution from infancy. Here are some tips.....

- It begins from pregnancy: Excessive maternal weight gain, smoking, and untreated gestational diabetes may lead to infant obesity. Prenatal care is essential to monitor infant development including weight.
- Breast feed. Breast fed infants are healthier and slimmer than formula fed infants. Formula is sweeter than breast milk. Formula may be associated with an affinity for sweets in later years.
- Do not feed your baby every time it cries. A baby's cry is not always hunger cry. Look for other cues as well.
- Practice demand feeding i.e. give the baby feed whenever he is hungry and shows it by crying. Do not feed your baby by the clock. That is one sure way of making the baby fat.
- Allow the baby to leave unfinished feedings. Infants know when they feel full. Forcing an infant who is full to continue feeding promotes obesity.
- Avoid overuse of sweets. If you want to show your love or you want to reward your child there are other ways; you can use verbal praise and non food items. Use toffees and chocolates only on special occasions. Keeping sweets out of the daily diet of an infant helps prevent obesity in later years.
- When the time comes for weaning, parent's goal should be to teach children to eat natural foods such as whole grains, fruits, vegetables, etc. and avoid nutrient-poor foods and junk foods, including canned cereals

which are so popular because they are tasty and also so easy to prepare but fattening. I will request to every mother who is reading these lines, to spread a simple tip to other parents-the first food of their child should be a real food – whole grain pulses and cereals with salads and fruits thrown in. Your children will thank you later for not spoiling them.

- An equally important tip is not to feed your children too often and forcefully. This habit of mothers may turn a slim child into a fat one sooner or later. Many mothers come to me with the complaint that their child is vomiting. The child looks quite healthy and happy. I examine the child and find nothing wrong. Then I advise the mother not to forcefully feed her child. To my chagrin most mothers do not readily accept this explanation and will reply with"If I don't persuade, my child will not eat anything". In this way, a child, who is looking "weak" to her mother will soon become an overweight child.

I hope my message here will be understood well by mothers who are indulging in such behaviour.

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Annexure

Diet Table (after 6 months)

Cereals	**Rice, Semolina (sooji/rava) Oatmeal, Barley, Porridge (Daliya) etc.**
Pulses	**Split green pulse (Moong dal), Pigeon pea (Arhar Dal) Red lentils (masoor dal), Chick peas, Kidney Beans**
Dairy	**Curd, Yogurt, Buttermilk**
Vegetables	**Bottle Gourd (Lauki), Courgette (Torai) Potato, Cauliflower, Broccoli, Turnip Cabbage, Spinach**
Fruits	**Banana, Papaya, Apple, Naseberry (Cheeku), Mango, Guava etc.**
Salad	**Carrots, Tomato, Cucumber, Soup Of green leafy vegetables etc.**
Non Veg.	**Egg yellow, Egg white at 7 months, Fish (after checking allergy), Chicken at 9 months**

Dr Mukul Tiwari is a renowned newborn and child specialist. He has a passion for writing. He has written and edited several books on child health. He has several publications in indexed medical journals and bulletins. He holds responsible positions in the Indian Academy of Paediatrics and National Neonatology Forum of India. He has been on the advisory board of “Indian Paediatrics”, the official journal of the Indian Academy of Paediatrics. He is an active member of National Publication House, Indian Academy of Paediatrics. He is also Editor-in-chief, Journal of Indian Medico Legal & Ethics Association. He was awarded Fellowship of Indian Academy of Paediatrics (FIAP) in the year 2007. This book is fruition of his vast research and experience in the field of baby care.

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