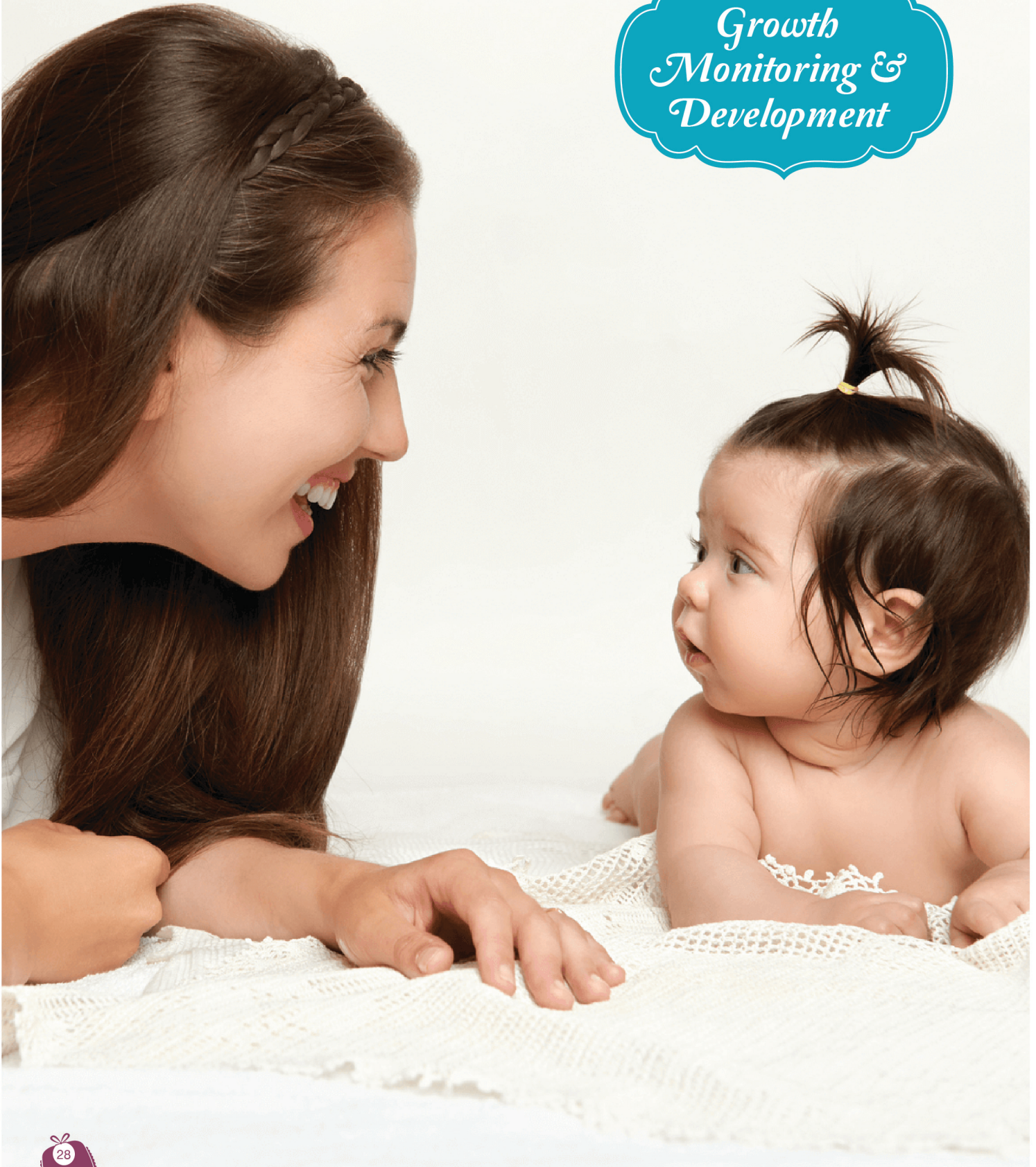


*Growth
Monitoring &
Development*



Growth Monitoring

- Growth is very good indicator of the overall well-being of the child and hence growth charts are also called as “Road to health charts”.
- Growth monitoring is important to identify growth faltering or excessive weight gain or short stature early, so that appropriate action can be taken.
- Abnormal growth may be a feature of a serious underlying condition like chronic disease or endocrine disorder.
- Growth deviation can be a pointer to abnormalities of pubertal development.



Developmental Observation Card

	Expected (By)	Actual
Social Smile	2 Months	<input type="checkbox"/>
Neck holding	4 Months	<input type="checkbox"/>
Transfer of objects	6 Months	<input type="checkbox"/>
Sitting	8 Months	<input type="checkbox"/>
Speech words (Dada, Mama)	9 Months	<input type="checkbox"/>
Standing	12 Months	<input type="checkbox"/>
Speech sentence	18 Months	<input type="checkbox"/>
(See, listen, understand)		<input type="checkbox"/>



Social smile

Baby smiling back in response to a smile.



Holds head steady

Baby keeping head steady always.



Sits alone

Baby able to sit alone with minimal support.



Stand alone

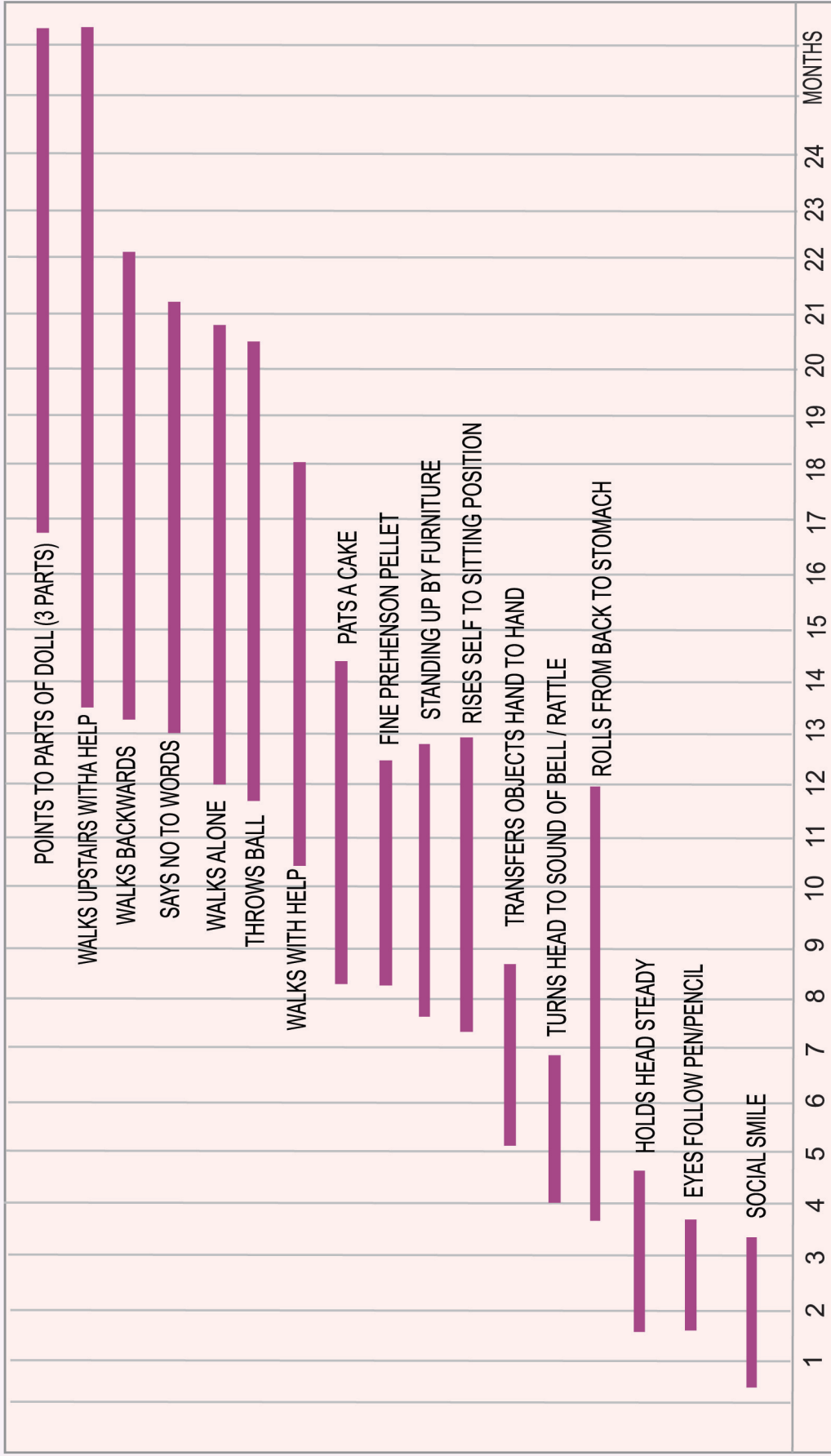
Baby able to stand on both feet with minimal support.



Parents/pediatrician must observe these important 4 milestones to detect the developmental delay at the earliest.

Development Chart

Make sure your child sees, hears and listens



NOTE : To use this chart, keep a pencil vertically on the age of the child. All milestones falling to the left of the pencil should have achieved by the child.

Based on BSID Baroda norms & Trivandrum Developmental Screening Chart (TDSC)

 This represents normal range

Stages of Development

- Social Smile
- Making few sounds (r.r.r.,eh,che,err)
- Moves hand half opened to the reach a toy
- Follows objects from one corner to the other
- Fixing eyes on ringing bells
- Head held straight for half a minute
- Prone-head raised 45 degrees-90 degrees
- Beginning of elbow support



Check List

- ♥ Responds to sound of bell or rattle
- ♥ Prone position : Head to one side, hips raised
- ♥ Clutches small objects on contact

Red Flag Sign

- | | |
|-------|------|
| ■ Yes | ■ No |
| ■ Yes | ■ No |
| ■ Yes | ■ No |



Stages of Development

- 🎯 Laughs loud
- 🎯 Behaves differently with strangers
- 🎯 Babbles continuously
- 🎯 Hand coordination
- 🎯 Putting toy into mouth
- 🎯 Palmer grasping, changing toys between hands
- 🎯 Looking towards rustling sound
- 🎯 Following a fallen toy with eyes
- 🎯 Good head control
- 🎯 Prone - swimming
- 🎯 Extended arm full open hands



Check List

- ♥ Eyes follow moving objects
- ♥ Searches with eye towards sound
- ♥ prone suspension - head held above the level of body
- ♥ Social smile

Red Flag Sign

- | | |
|------------------------------|-----------------------------|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No |



Stages of Development

- Reacting to hide and seek games
- Resisting attempts to take the toy away.
- Looks at familiar person / object when asked
- Distinct double syllables when whispering
- Bounces with support
- Stands with support bearing weight for half a minute
- Letting things fall down with intention
- Grasping cubes in both hands and holding for few minutes.
- Changes position to reach toy
- Recognizes the cubes inside the box to grasp it
- Sits with support at least for a minute
- Commando crawling
- Making few sounds (r.r.r.,eh,che,er)



Check List

- ♥ Sits propped - Head steady, back curver slightly
- ♥ Laughs aloud
- ♥ Retains red dangling ring

Red Flag Sign

- | | |
|------------------------------|-----------------------------|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No |



Stages of Development

- Gives object to familiar person
- Reacts to don'ts
- Follows simple instructions
- First meaningful syllables
- Pulling to stand using furnitures
- Side step walking
- Knocking two cubes
- Forceps grip
- Throwing toys with intention
- Touching eyes, nose with fore fingers
- Lets coins fall into small box
- Coming to sit in supine position using furniture.
- Safe balance in long sitting posture
- Swinging on hands and knees
- Cross co-ordinated crawling
- Safe crawling



Check List

- ♥ Sits without support - back straight on floor
- ♥ Pincer grasp
- ♥ Responds to name with head turn, eye contact, smile
- ♥ Enjoys peek a boo
- ♥ Turning over from either direction (Prone to supine and vice versa)

Red Flag Sign

- | | |
|-------|------|
| ■ Yes | ■ No |
| ■ Yes | ■ No |
| ■ Yes | ■ No |
| ■ Yes | ■ No |
| ■ Yes | ■ No |

Stages of Development

- Walks three steps freely
- Stoops without falling down
- Climbs stool
- Climbs three steps of stairs in baby's step
- Turns screw cap of bottles
- Draw line back and forth
- Holds two objects in each hand for 2 seconds.
- Says three meaningful words
- Expresses desire through words
- Rejects requests verbally
- Helps to put toy in order
- Imitates domestic activity
- Stays a while with familiar person
- Play hide and seek with children of same age
- Holds tumbler while drinking
- Shows or looks at parts of the body
- Washes hand with jet of water
- Understands simple commands



Check List

- ♥ Pulls self to stand
- ♥ Removes lid off the box to find the hidden toy
- ♥ Puts object into the container
- ♥ Engages in simple imitative play

Red Flag Sign

- | | |
|------------------------------|-----------------------------|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No |





Stages of Development

- Kicks ball
- Stands on one leg
- Walks five steps on tip toe
- Hops forward without holding
- Uses first name when speaking about himself
- Able to name two activities if picture is shown
- Able to name objects when shown is picture
- Takes care of doll
- Consoles when someone is sad
- Takes off shirt
- Puts on chappals
- Eats on own, spilling allowed
- Sometimes dry during day
- Scribbles in paper (spiral)
- Opens and closes bottle
- Builds tower with eight cubes
- Sorts out according to colours
- Sorts out according to size
- Understands cold-hot, heavy-light
- Takes an object on request

Check List

- ♥ Walks independently
- ♥ Throws small ball
- ♥ Responds to word of command with appropriate actions
- ♥ Understands no

Red Flag Sign

- | | |
|------------------------------|-----------------------------|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No |

Know About Teething

Although teething could begin as early as 3-4 months, or as late as 1 year, teeth usually start erupting in babies around the age of 6 months. Before they erupt the teeth will be moving in her gums, which may cause your baby discomfort. You'll notice your baby dribbling, biting on everything and looking fretful. To ease your baby's discomfort you could:

- ☆ Try rubbing her gums gently with your little finger.
 - ☆ Offer her something firm to chew on, say, a raw carrot, a rusk, a cool teething ring. Give drinks in a cup, as she may find sucking painful.
 - ☆ Avoid taking your baby out in the cold as this usually aggravates the teething pain
- Dental hygiene is important even for milk teeth. Try and introduce your baby to brushing early in her life. Give her a toothbrush with soft, rounded bristles and make brushing teeth a little game, so that your baby learns to look after her teeth

A diet that promotes general health also promotes dental health. A healthy diet provides young children with the essential vitamins and minerals such as calcium which they require to build strong bones and teeth. Avoid sweet, sticky foods that cling to teeth and gums. With the emergence of teeth your baby develops the urge to chew, therefore, various fruits & vegetables with different tastes and textures should be added to give variety and balanced nutrition.

Teeth in order appearance by age

Incisors



6-8 Month

Lateral Incisors



8-10 Month

First Molars



12-15 Month

Canines



18-24 Month

Second Molars



20-30 Month

Early Stimulation

- ☆ Providing the right stimulation at the right time is the key for brain development.
- ☆ The stimulation program will be of use to the parents of high risk babies as well as to the normal child to bring best out of them. Mother should be therapist for this program. Age Appropriate toys and stimulating environment plays key role in development of the child.

Visual Development



Watches mother's face intensely as she speaks



Follows moving ball



Looks for and picks up objects



Alert peripheral vision



Enjoys picture books

Early Stimulation 0 to 2 Months



Baby develops a sense of bonding when cuddled and held close.



Hang brightly colored objects across the crib



Mother's milk is the complete baby food



Proper covering helps to prevent heat loss in new born period

Early Stimulation 2 to 4 Months



Sound producing toys are suitable for this age



Maintain eye contact while talking with the baby



Place things just out of reach of baby's hands. Stimulate him to reach out and grasp it



child should be carried astride (legs separated)

Early Stimulation 4 to 6 Months



Encourage babbling



Child starts taking semi solid food



Allow the child to move freely



Shake a bell or a squeaky toy over his head. Encourage him to turn his head and find the sound

Early Stimulation 6 to 8 Months



Start calling the child by his name



Put the child on all fours over a roll. Gently move the roll from front to back, making the child learn alternation on his knees and hands.



Help the baby to develop a sense of identity



Banging toys such as drums, pans or pots can be given at this age.

Early Stimulation 8 to 10 Months



Encourage the child to stand on by holding on to the furniture



Showing picture books and talking to baby promotes language development



Bring the child's buttocks on to his heels with the upper part of his body erect. Show him a toy at shoulder level.



Play peek-a-boo with the child

Early Stimulation 10 to 12 Months



Balls with different sizes, dolls, puppers, push and pull toys, rocking toys, small containers, pegboards etc., can be given



when a baby expresses his anger, divert his attention and be supportive



Baby expresses his joy by performing rhythmic actions like clapping hands.



family members should participate in child's play

Early Stimulation 12 to 15 Months



Give baby picture books that have heavy cardboard pages



child shows interest in learning about parts of the body



Give the baby 2 or 3 blocks of different sizes to stack and knock down



Look out of the window. Talk about what the weather is like.



Encourage the child to scribble by drawing a few lines

Height / Weight Chart

Average height and weight
of BOYS at different ages

Average height and weight
of GIRLS at different ages

AGE	WEIGHT (kg)	HEIGHT (cm)	AGE	WEIGHT (kg)	HEIGHT (cm)
Birth	3.3	50.5	Birth	3.2	49.9
3 months	6.0	61.1	3 months	5.4	60.2
6 months	7.8	67.8	6 months	7.2	66.6
9 months	9.2	72.3	9 months	8.6	71.1
1 year	10.2	76.1	1 year	9.5	75.0
2 years	12.3	85.6	2 years	11.8	84.5
3 years	14.6	94.9	3 years	14.1	93.9
4 years	16.7	102.9	4 years	16.0	101.6
5 years	18.7	109.9	5 years	17.7	108.4
6 years	20.7	116.1	6 years	19.5	114.6
7 years	22.9	121.7	7 years	21.8	120.6
8 years	25.3	127.0	8 years	24.8	126.4
9 years	28.1	132.2	9 years	28.5	132.4
10 years	31.4	137.5	10 years	32.5	126.5
11 years	32.2	140.0	11 years	33.7	138.0
12 years	37.0	147.0	12 years	38.7	142.0
13 years	40.9	153.0	13 years	44.0	148.0
14 years	47.0	160.0	14 years	48.0	155.0
15 years	52.6	166.0	15 years	51.5	161.0
16 years	58.0	170.0	16 years	53.0	162.0

(Source : Nutrient Requirement and Recommended Dietary Allowances for Indians, I.C.M.R)

Medical Disclaimer : In no way should the information in this leaflet be consider as offering medical advice.

The content of this book, presented in a summary form, is general in nature, and is provided for informational purpose only.

Never disregard medical advice or delay in seeking it, because of information provided in the leaflet.

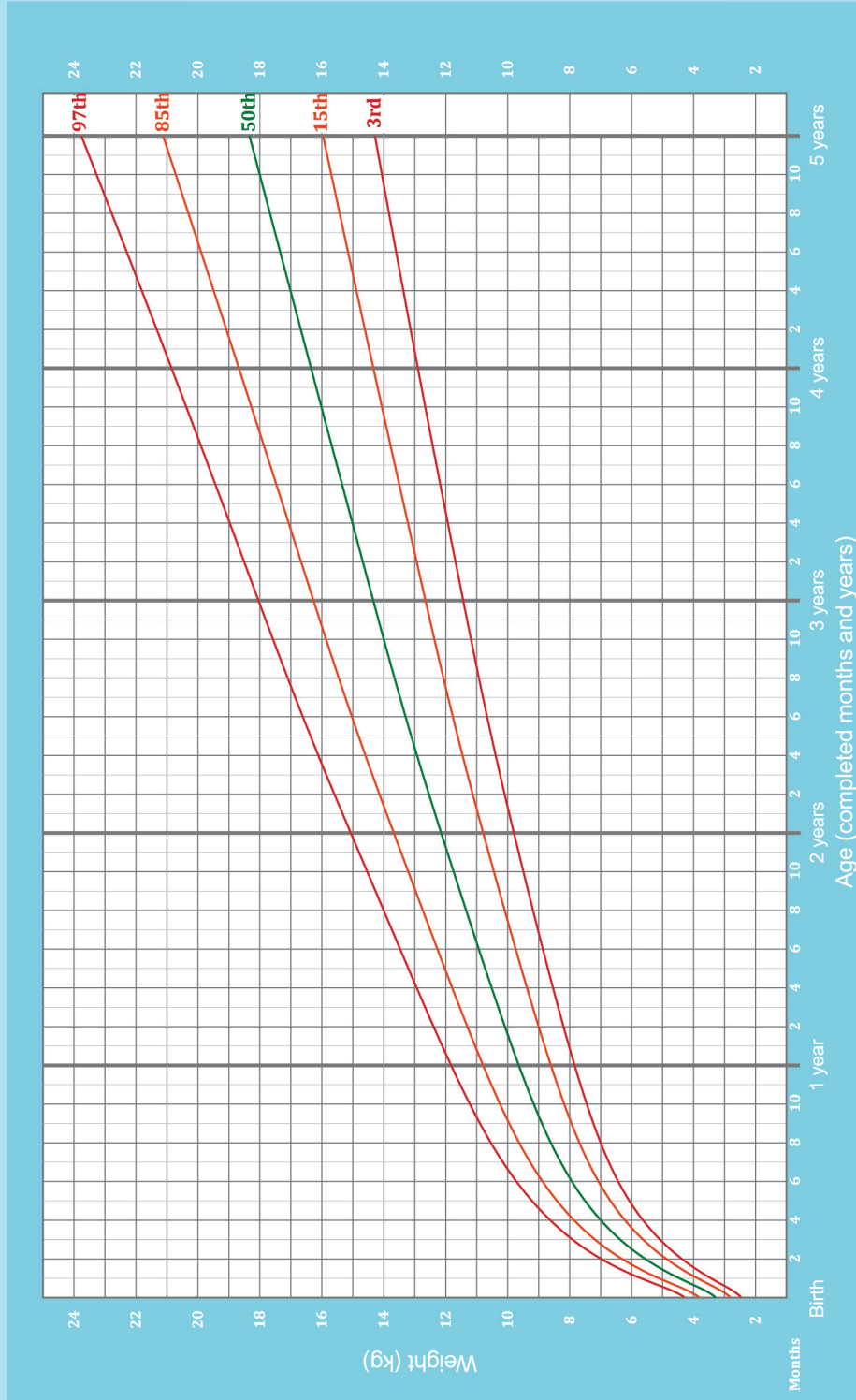
IAP Chart[®] on Length, weight and head circumference for BOYS from 0-36 months



GROWTH RECORD

Weight-For-Age BOYS

Birth to 5 years (Percentiles)



WHO Child Growth Standards

Centile Sequence from top: 97th, 75th, 50th, 25th, 3rd

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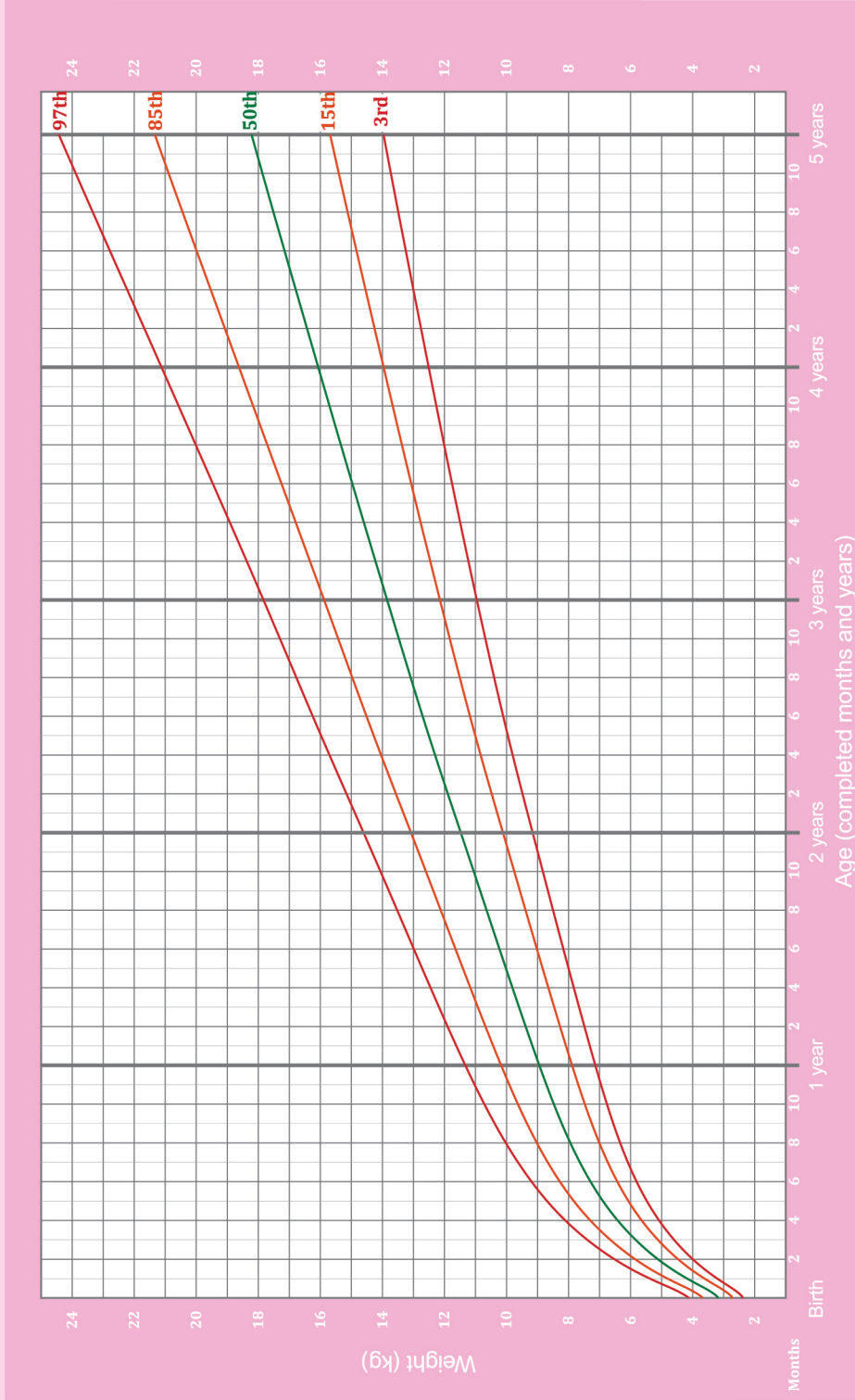
IAP Chart[®] on Length, weight and head circumference for GIRLS from 0-36 months



GROWTH RECORD

Weight-For-Age GIRLS

Birth to 5 years (Percentiles)



WHO Child Growth Standards

Centile Sequence from top: 97th, 85th, 50th, 25th, 3rd

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