

New data shows what a woman eats during pregnancy and the newborn's diet till age 2 determine the child's well-being

# First 1,000 days shape health for life

Kounteya Sinha | TNN

It's now official — the first 1,000 days of your life — conception to your second birthday is what decides how healthy or brainy you will be the rest of your life. For mothers force-feeding their teenage children with "healthy food" or pushing them to go out to play, scientific evidence now clearly proves that what a mother eats while pregnant influences the child's memory, concentration, judgement, intellect, mood and emotions.

Scientists say there are at least 50 brain chemicals or neurotransmitters that are affected by the intake of food and micronutrients by the child in his or her first 1,000 days. The impact of inadequate nutrition during this golden period is lasting and irreversible, with effects beyond physical health to affect the child's cognitive development.

This prompted The Times of India and Nestlé to jointly launch an initiative to promote healthy nutrition in the crucial first 1,000 days.

The nutrition available in the first 1,000-day period also predisposes children to chronic disease in adulthood. India at present suffers from the vicious cycle of malnourished pregnant women who most often give birth to underweight children. Of the 2.6-crore births in India annually, 23% babies are low weight (below 2.5 kg). Infant deaths and illnesses increase sharply as birth weight declines. Many of these children who survive become stunted or wasted by the time they are five.

Pediatrician Meharban Singh says stunted children have smaller head size, impaired neuromotor coordination, sub-optimal learning skills and mental capabilities. Stunted children have around 11 points lower IQ compared to normal children. Maternal and child health expert professor Zulfikar Bhutta from the Aga Khan University Hospital, Karachi told TOI that low birth weight among Indian children is mainly due to the effects of malnutrition during the 1,000-day period. "Consequences of malnutrition are permanent and often passed down from mother to child. Steady decline has been noted in maternal and child mortality in India. Prevalence of severe nutritional deficiencies has also dipped but the pace has been slow. This is mainly because

enough importance has not been accorded to the first two years of a child's life that are critical," professor Bhutta said. Experts even add that the seed of chronic illnesses such as diabetes, heart disease, schizophrenia and obesity are laid in the womb itself.

Dr Swaroop Sampat Raval, chief of the Early Childhood Association says during pregnancy, the foetus is solely dependent on maternal intake and nutritional stores, mostly fat, for its energy. "Poor maternal nutrition during pregnancy in turn implies a risk of poor nutritional availability to the fetus. Diet intake of a pregnant woman should look at being healthy overall rather than high calorie intake," Dr Raval said.

Experts say the last three months of pregnancy and first three years of post-natal life are most crucial for a child's brain development.

The size of a baby's brain at birth is almost 70% of the adult size but his body weight is only 5% of an adult. During the first year of life, 15% brain growth occurs. The remaining 10% of brain growth occurs during preschool years.

Dr Sanjeev Ganguly, an expert on pediatric nutrition said "what a mother eats decides how the genes of the child will express itself. Culturally in India, a woman eats last, even when she is pregnant. A socio cultural change therefore needs to come about which recognizes that a pregnant woman needs the maximum amount of nutrition. Its not about how much she eats as it is about the quality of food she consumes. Pregnant Indian women are concerned about calorie intake rather than protein intake which is essential for an unborn child."

Proper intake of folic acid and vitamin B12 during this crucial 1,000 days by mothers can ensure the overall growth and well being of the child, added Prof. Kalhan.

Professor Jatinder Bhati, paediatrician at Medical College of Georgia School of Graduate Studies says underweight childhood, micronutrient deficiencies and poor breastfeeding combined cause 7% of deaths and 10% of the global disease burden.

## STATE OF THE NATION

Births recorded every year	Every 5 <sup>TH</sup> child in the world lives in India	Babies born low-weight (below 2.5 kg)	Children under-5 'stunted'	48%
2.6 CRORE		23%	Children under-5 'wasted'	20%

India in world's five countries that account for more than half the world's 3.3mn newborn deaths

India contributes to 54% of the total births worldwide and 66% or 1.8mn of all stillbirths globally

7lakh new-borns die within first week & almost 9lakh within 28 days of birth

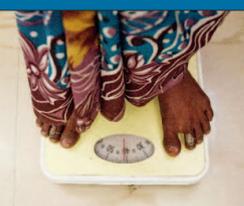
## MOTHER'S HEALTH

22% women in India now aged between 20 and 24 years gave birth to a child before they turned 18

Almost 45 in every 1,000 births are born to mothers aged between 15 and 19

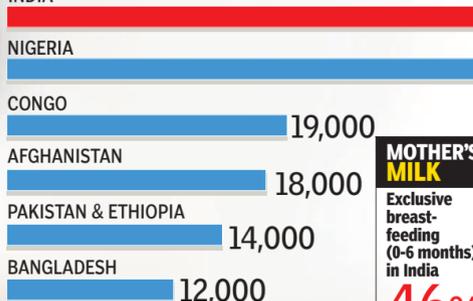
One woman dies every 8 mins due to pregnancy-related complications

Category	Prevalence of Anaemia	
	NFHS II (%) (1998-99)	NFHS III (%) (2005-06)
Children (6-35 months)	74	79
Married women	52	55
Pregnant women	50	59



## MATERNAL DEATHS

India sees the highest number of women dying during childbirth



## MOTHER'S MILK

Exclusive breastfeeding (0-6 months) in India 46%

## TOP 5 STATES (%)

- Chattisgarh | 82
- Assam | 63
- Andhra Pradesh | 63
- Manipur | 62
- Arunachal Pradesh | 60

## WORST 5 STATES (%)

- Bihar | 28
- Himachal Pradesh | 27
- MP | 22
- Goa | 18
- Haryana | 17

## Breastfeeding can save 22% of newborns

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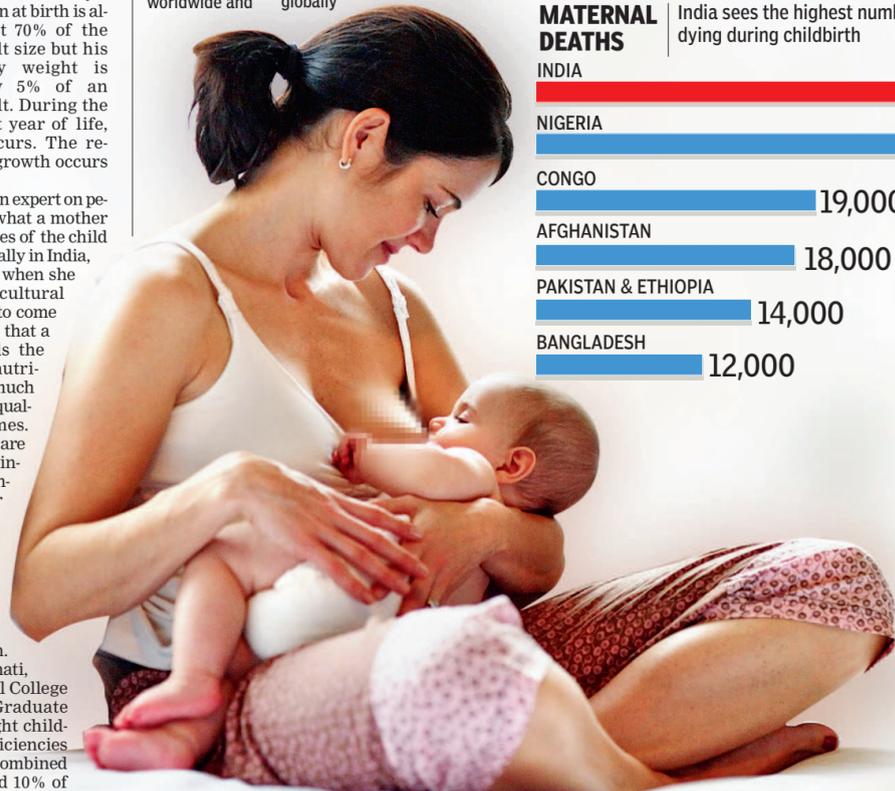
New Delhi: Dramatic health benefits have been proven to pass from a mother to her newborn through breast feeding. Experts say breast milk is packed with nutrients, vitamins and minerals and carries antibodies from the mother to help the baby combat life-threatening disease. The WHO and Union health ministry recommend exclusive breastfeeding for the first six months. They say breastfeeding should begin within an hour of birth and should be on demand, as often as the child wants day and night. However, fewer than 50% mothers in India follow this.

Swati Popat Vats, president of Early Childhood Association says when a baby is born, the only organ that

is ready but not developed is the brain. Vats said "A baby is born with trillions of neurons which are not connected. The neurons require covering of a particular kind of fat which is essential for the child's brain to develop. This fat is available in right amounts in the mother's breast milk. Breast milk also help build the child's immune system." Experts say nearly two-third of the brain weight is phospholipids and long-chain fatty acids. Docosahexaenoic acid (DHA) and arachi-donic acid (AA) are key fatty acids. Human milk contains 30 times more DHA than cow's milk. According to WHO, infants should get 20 mg DHA/kg every day. Breast-fed babies have at least eight points higher IQ in later life as compared to formula-fed babies.

Dr Arun Gupta, chair of the Global Breastfeeding Initiative for Child Survival said starting to breast-feed immediately after birth increases chances of survival of babies. "If mothers start breastfeeding within an hour of birth, 22% babies who die in the first 28 days (about one million newborns each year) could be saved. Likelihood of death increases significantly each day the start of breastfeeding is further delayed," Dr Gupta added.

Breast milk is also economical as the baby requires no other food or liquid, even water in the first six months. "Exclusive breastfeeding is an important part of building optimal child nutrition during a baby's first 1,000 days failing which the damage is irreversible," Dr Gupta added. The milk produced in the first few days after childbirth, called colostrum, is rich in protective antibodies. It helps increase the baby's immunity, protects his intestines, and strengthens his respiratory system.



## Healthy Babies Happy India

Moms, you know that breastfeeding protects and nourishes our bodies. It also creates a lifelong bond between us. You should breastfeed us for the first 2 years and exclusively so for the first 6 months of our life.

But did you know that there's one more simple way to ensure our lifelong health?

Just take extra care of our nutrition during the 1st 1000 Days of our life. And this means taking care of what you eat during pregnancy and of our nutrition till we are 2 years of age.

Share this simple idea with every friend, every mom. And help us build a healthier and happier India.

**Only when babies are healthy, India will be happy!**

270 days of Pregnancy + 365 days of 1st year + 365 days of 2nd year = First 1000 days

A healthy foundation for life

An initiative of NESTLÉ with THE TIMES OF INDIA

To know more about the importance of 1st 1000 Days, talk to your Doctor. Visit: [www.starthealthystayhealthy.in](http://www.starthealthystayhealthy.in) or scan this QR code with your smartphone