

Study finds lack of vitamin B-12 may trigger low birth weight

By Hetal Vyas, Bangalore Mirror Bureau | Jan 7, 2014, 01.00 AM IST



Researchers in the city and US suggest gynaecologists prescribe supplements to vegetarian mothers

Low birth weight and consequent high infant mortality rate (IMR) have been hounding Indian mothers for a long time. One reason behind the high number of children born with low weight in India could be deficiency of vitamin B-12 during pregnancy, a group of researchers from Bangalore and USA have concluded in a decade-long study.

The study, 'High folate and low vitamin B-12 intakes during pregnancy are associated with

small-for-gestational age infants in South Indian women,' was published in the December 2013 issue of the American Journal of Clinical Nutrition.

The study conducted during a span of about 10 years at the St. John's Research Institute by an international research team headed by nutritionist Pratibha Dwarkanath suggests that "consumption of high-folate supplements coupled with low vitamin B-12 intake during pregnancy may be a problem – at least in India (where vitamin B-12 intake is generally quite low due to vegetarianism)".

Vitamin B-12 plays a key role in the normal functioning of the brain and nervous system, and in the formation of blood. Only bacteria and archaea have the enzymes required for its synthesis.

A team of researchers from Bangalore and the US studied the diet of over 2,000 pregnant women between 17 and 40 years of age in their first trimester of pregnancy for 10 years. The team studied the food composition of these women, along with their intake of folate (folic acid) and vitamin B-12. Use of nutritional supplements was also recorded. These data were then related to measures of infant health such as duration of pregnancy and birth weight.

Dr Anura V Kurpad, Professor and HOD, Nutrition, St. John's Research Institute, said: "Babies born with low birth weight are a major problem in India, which needs to be taken care of. The research was undertaken to figure out the root cause of this problem, as it can lead to high risk of IMR and chronic diseases when the child grows up."

Being vegetarians, most Indians are already low on vitamin B-12, said Dr Kurpad. "It is, therefore, important for a gynecologist to prescribe not only folate, but also vitamin B-12 to pregnant women. Non-vegetarians can consume the required dose of vitamin B-12 from their diet, but for vegetarians, the only source of this vitamin is milk and its products." He suggested that a vegetarian woman should consume at least 500 ml of milk or milk products everyday during pregnancy to fulfill the minimum requirement of vitamin B-12.

Senior gynecologist and former Health Director of Karnataka, Dr B Dhanya Kumar, said: "Vitamin B-12 is important to control low birth weight and premature birth. Pregnant women with high deficiency of B-12 are also prescribed injections."