



The First 1000 Days

MATERNAL NUTRITION

A woman's health and nutrition lays the foundation for her child's growth and development. If a woman is not well-nourished before and during pregnancy, then her child is more likely to be born with weak capacity to grow, have weak bones, and not be able to fight infections, not learn in school, and earn less during the rest of the child's life. During pregnancy a woman's own life is in danger if she is anemic (an iron/ nutritional deficiency disease that weakens the blood), if she does not consume an adequate diet or take proper rest, or if she gains too little weight. During lactation a woman needs to eat more than she did during pregnancy to ensure that her own body is not depleted as she breast feeds her child. Spacing pregnancies is critical to allow time for a woman's body to recover and prepare itself to nourish and nurture another child. During this time she needs support to eat well, maintain good weight and health.

Almost all families have the resources to ensure that women in general, and pregnant and lactating women in particular are well nourished. For the few families that are extremely poor, there are government livelihoods and social protection/safety net programs so that sufficient food and health care can be provided for woman during pregnancy and immediately after.

To help ensure that all families in Bihar are supported to adequately nourish their women optimally before and during pregnancy, after delivery and between pregnancies, remember the **5 Principles** (*Panch Niyam*)!

Foods	Benefits
Fish, meat or liver	Provide iron, zinc, brain forming ingredients and energy and protein for forming muscles
Eggs	Provides protein for forming muscles and brain of the child
Milk or milk preparations like yogurt, paneer or kheer	Provide calcium for stronger bones and teeth of the child and maintain strong bones of the mother and protein for muscle formation
Seasonal dark green leafy vegetables (e.g. chana saag, palak, etc.)	Provide iron and folic acid and helps fight infection in mothers and unborn infants
Seasonal dark yellow or orange fruits and vegetables (ripe mango, ripe papaya, ripe jackfruit, pumpkin, etc.)	Form vitamin A in the mother's body and this helps to protect the eyesight of mothers and infants and along with vitamin C present in these foods helps to fight infections

1. Consume at least 5 locally available enriching foods every day, in addition to rice/roti and thick dal:

All these foods are usually present in all communities or can be produced locally with a little help, e.g. poultry, vegetable/kitchen gardens or edible wild green leaves, seasonal fruits and vegetables and milk. Ensure that salt added to the food is iodized. Iodine helps with brain development of the fetus and helps prevents still births.

2. Consume adequate amounts of foods:

During pregnancy, the woman should consume each day, 4-5 bowls (each bowl is 250 ml/1 pao) of rice or equivalent rotis (and during lactation, 5-6 bowls of rice) plus 2 bowls of thick dal. In addition, she should consume each day, one piece of fish or meat or organ meat, one egg, one bowl or glass of milk, two bowls of cooked dark green leafy vegetables (saag), and one bowl of dark yellow or orange vegetables or fruits. Between meals women should be encouraged to consume healthy snacks such as bananas, other fruits, rice pharhi / chura with jaggery or sesame/groundnuts or chikki (jaggery plus nuts), ladua, lai, corn, etc.

3. Iron and Folic Acid:

All pregnant women should consume one tablet of IFA daily as soon as the pregnancy is confirmed and at least 100 IFA tablets through each pregnancy. If a woman starts taking the tablets late in pregnancy or does not consume the tablets continuously, then she should continue taking the tablets even after delivery until she has completed the course of 100 tablets per pregnancy. Consumption of IFA tablets helps prevent anemia and protect the woman's life during childbirth. Folic



acid is needed for preventing anemia and to protect the newborn from birth defects. It also helps to build iron stores in the newborn child and prevents child anemia. IFA tablets are best consumed after the evening meal, just before going to bed. If a citrus fruit or lemon/lime is eaten during the evening meal/just before taking the iron tablet, the iron will be better absorbed. It is advised not to drink tea at least 1 hour before or after taking the tablet as this hinders absorption of the iron. Women who consume the recommended amount of foods as noted above, along with the IFA tablet will have few or no side effects e.g. stools could be darker, etc. The husband or other family member should be asked to help her remember to consume the tablet every day. The empty blister pack of IFA tablets should be saved as an aid to recall how many tablets the pregnant woman has consumed. This helps to ensure that 100 tablets are consumed.

4. Calcium and De-worming:

A woman needs to take 2 calcium tablets every day starting from the second trimester through to the time her baby is six months old, thus consuming a total of 720 tablets. One tablet should be taken with the morning meal and the second with the afternoon meal. Care should be taken to ensure that tablets are not consumed on an empty stomach as it can cause gastritis. Care should also be taken to not consume the calcium tablets with the IFA tablets as calcium can interfere with the absorption of iron.

During the second trimester of pregnancy, women need to take one dose/tablet of Albendazole to rid themselves of possible soil transmitted helminths as these helminths can cause anaemia, malnutrition, growth faltering, and impaired cognitive development.

5. Weight Gain:

Pregnant women should take their weight each month at the AWC or the health center. They should gain one kg per month from the second through the 6th month of pregnancy, and 2 kg per month from the 7th to the 9th month of pregnancy. The total weight gain should be 10-12 kg during pregnancy.

When supporting families to ensure good nutrition for women before and during pregnancy, during lactation and between pregnancies remember the following:

- ✓ No expensive foods are needed to fulfill the dietary needs of women during the vulnerable child bearing years. Seasonally available, affordable foods should be promoted.
- ✓ Ensuring women are healthy and well-nourished before they become pregnant (pre pregnancy and inter pregnancy) and while they are pregnant and lactating is critical to ensure the health and well-being of themselves and their babies and breaking the inter-generational cycle of malnutrition.
- ✓ If a pregnant woman experiences nausea during the first trimester, she should eat small, frequent meals.
- ✓ It is important to support all pregnant women to plan for deliveries in health facilities. A pregnant woman whose height is below 150 centimeters (approx. 5 feet), or who weighs below 45 kg (at the start of pregnancy) is at high risk of a difficult labor and should plan for an institutional delivery.
- ✓ Pregnant women must be encouraged and supported by family members to get regular check-ups during pregnancy (a minimum of 4 ante-natal check-ups). These check-ups help to monitor progress of the mother and child as well as ensure that mothers are consuming appropriate foods and supplements, especially IFA tablets.
- ✓ During lactation, the energy needs of mothers are high to maintain their own health. This requires lactating mothers to consume a diet that has more of the staple cereal (rice or roti) as compared with their diet during pregnancy, plus snacks between meals, and an additional one tablespoon of ghee or oil in each meal.
- ✓ The diet of mothers during lactation has almost no effect on her supply of breast milk which depends on how much the child breastfeeds. So, even an underweight and low income woman can provide sufficient breast milk supply if she feeds her child frequently and for long enough time at each feed.

