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Breast Feeding - What Every Mother Must Know

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Breast-feeding is the proud privilege of every mother. It gives her an opportunity to fondle her little one with tender care and looks forward to his growth and development with high expectations. Since breast-feeding is the only source of nourishment for the child in early months of life, she is prepared to make any sacrifice to provide all that the child needs. To do so properly, it is necessary for her to know all the nutritional requirements of the growing child. Following information may be considerable help for every mother who is breast-feeding the child.

A. To provide all that child needs, mother's diet must be well balanced.

Adequate calories : During the first 6 months a mother who is breast feeding requires an additional 550 calories per day. Maternal fat stores accumulated during pregnancy provide about 100 to 150 calories per day during the early months of breast-feeding. If the mother intends to provide all or most of her infants nutrition through breast milk alone for a long period, the caloric requirement can be increased a little further. After 6 months upto one year, calories can be reduced to 400 kcal/day if the child is started eating some home made or natural food items.

Proteins : An additional 25 gms of protein during the first 6 months is recommended. This can be reduced to 18 gms from 6 months to 12 months. This additional proteins can be achieved by taking more milk and curds, pulses and dals, fish, walnuts etc.

It seems logical for a woman who produces milk also to consume milk. Protein from milk, although derived from land animals comes in a different category altogether. They provide minimal quantities of highly unsaturated fatty acid but are a major source of many other important nutrients. Milk is an important source of sulphur containing amino acid cysteine.

Fats : Fats are important item of diet but their increased intake is undesirable. Types of fats are also important. We require two important types of fat. Almost half of the total fat required comes from the invisible sources like whole grain, pulses, vegetables, milk and spices. This source supplies our full requirement of one type of fatty acid polyunsaturated n-6 fatty acids (PUFA-6). However, it is deficit in another essential fat, namely, polyunsaturated n-3 fatty acid (PUFA-3). There are only a few sources of this fat in our Indian diet. Both these fats are required in proper proportions for many regulatory functions. The non-vegetarian foods such as lamb, chicken, eggs provides fair quantities of PUFA-6 and therefore, their use should be avoided. However, milk, butter, ghee contain only minimal quantity of PUFA-6 and therefore their use in limited quantity is desirable. The total requirement of fat from visible cooking fat should not be more than 1/2 kg./person/month. This may be obtained from ghee and coconut oil.

When mothers consume PUFA-6 rich oils in fair quantity as commonly seen in the present day Indian diet, their breast milk may also have a higher concentration of this fat. The higher intake of these oils affects the balance between PUFA-6 and PUFA-3 and thus increases the risk for diabetes, heart diseases or infections in the children, later in life.

Minerals : The important minerals which a lady who is breasts feeding needs are calcium and iron. Bones need calcium and blood needs iron for haemoglobin. All these minerals are required in small but adequate quantity. During the last weeks of pregnancy foetus starts to get an iron store. Milk contains a lot of calcium and phosphorus. But directly increasing iron and calcium in a lactating mother's diet does not seem to increase the amount of either in her milk. It is probably better for a woman to build up good store before and during early pregnancy so that she has what is necessary for the milk in advance. While the deficiency of minerals is undesirable, their excess intake can also be equally harmful.

Vitamins : Modern superstition would have us believe that vitamins always have a beneficial effect upon health. In fact taking unnecessary supplements of vitamins can lead to harmful effects rather than good health.

As a normal person, the breast-feeding mother also should take enough vitamin through her diet, may be a little more. All the vitamins have its own specific functions in our body.

With every age groups i.e. child to old age indulging on fast foods such as colas, hamburgers, refined foods such as bread, biscuits, pizzas, roomali roti, nan etc.

mankind has made themselves responsible for having deficiencies of many vitamins needed for the body. Vitamins which are essential for carrying out various biochemical processes are missing causing imbalance of processes in the body. Some of the vitamins are of utmost importance as they are antioxidants such as vitamin-C and vitamin-E.

Vitamin A is necessary for good eyesight. The amount of vitamin A in mother's milk is affected by body stores and present dietary intake. If the mother's milk is deficient in this vitamins, the infant she is nursing cannot build up its own liver stores. The rich source of this vitamin is milk, dark, green leafy vegetables, red and orange fruits like papaya, mango and vegetables such as carrots and pumpkin.

Vitamin C is rich in citrus fruits like oranges limes and lemons, also in many other fruits in small amount. Mothers who are eating a normal diet meet the needs of their breast fed babies for this vitamin adequately. If the mother herself eats the fruits or drinks the juice, since the vitamin is water soluble and gets quickly into all body fluids including milk. If the mother eats fruits, she covers her own needs as well as those of the baby.

Vitamin D does not come only from the diet, but also by the action of sunlight. This vitamin is needed for the incorporation of calcium into the bones. Milk is one of the rich sources of vitamin D and vitamin B_{12}. Human milk contain a substantial amount of water soluble form of this vitamin-Vitamin-D-Sulphate.

B. Special Requirement

Vitamins : Vitamin are having specific functions in our body. Due to the modern living, people started to indulge on junk foods. They all are heavy in calories from sugar and refined grains. Because of refining and processing these are depleted of many vitamins, and also minerals. High and regular intake of these junk foods may cause some deficiency of vitamins. If the lactating mother's food lacks enough vitamins, the infant whose nourishment is only breast milk will also develop vitamin deficiency. So, even a baby's requirement is absolute. Therefore, for the mothers as well as for the baby's health, it is better to include more fruits, vegetables, whole cereals pulses, and milk in the daily diet.

Antioxidants : Due to the presence of some toxic Substances (oxygen free radicals) in our body nature has provided us with the defence as antioxidants in the form of vitamin C and vitamin E. Vitamin C is known to play the central role is protecting against these toxic substances. Like these two vitamins, trace minerals and other

micronutrients are also required to scavenge these oxygen fee radicals and thereby improving the immune defence mechanism. Like vitamins, trace minerals are essential nutrients and can only be obtained from the diet. Refining and processing deplets many of these nutrients.

N-3 Fats : Our present day Indian diet has one major defect that it is deficient in one essential fat PUFA-3 or n-3 fats. The main source of this fat is fish. All other sources of this type of fat in our diet are limited such as linseed oil, mustard seeds and oils, methi seeds, green leafy vegetables and some pulses (black gram, rajmah) and walnuts. As the sources are limited, especially when the lactating mother is not taking fish, one can cover-up this deficiency by taking two or three capsules of fish oil daily. As the fatty acid composition of mother's milk reflects her own dietary intake, by taking n-3 rich oils or food items, the baby also will be getting a proper nourishment.

Proteins : A lactating mother may secrete as much as 10 mg/day of high quality protein, so she needs extra protein in her diet too. To cover up the extra protein needs, one can include either 3 katories (120 gm.) of rice and 2 katories (50 gm.) of dal as other pulses. One can substitute 2 cups milk or curds (300 ml.) or 3-4 pieces fish with dal or other pulses.

C. Avoidance of undesirable foods or drugs

Alcohol : The concentration of alcohol in a mother's milk is about the same as that in her blood. So the baby of alcoholic mother can he affected if she is breast-feeding. There will be some adverse effects of alcohol on the fetal brain. So it is wise to avoid alcohol at the lime of lactation as the mother, definite looking forward for a healthy baby.

Tobacco : Nicotine gets accumulated in the breast milk of mothers who smoke cigarettes. Milk production is reduced in heavy smokers than who don't. Nicotine can inhibit milk production. Studies have shown that, infants exposed to nicotine in the womb are born smaller and die shortly after birth than the babies of women who do not smoke.

Toxic substances : A mother can transfer a variety of potentially harmful substances to her baby through the breast milk. Usually these chemicals are stored in fatty tissue, which the mothers body draws on to produce breast milk at the time of lactation. The important toxic substance which can harm a baby is PCB (Poly chlorinated biphenyls) which has been used in wide range of industrial products and processes, DDT and

other pesticides and occupational chemicals like dry cleaning solvents. If the lactating mother is exposed to these harmful toxic chemicals there is no doubt that all these can get stored in the fatty tissue (adipose tissue) and excreted in the cream of breast milk.

Certain drugs : For most drugs, the concentration in human milk is of the same order of magnitude as the plasma concentration. But in some cases it can be less also. Some drugs are contra-indicated if they are radio active, can cause allergy and bleeding disorders. Many drugs taken by a nursing mother can be passed on to her baby through her milk. The infant's immature kidney and liver may be unable to excrete or detoxify these drugs. Some babies may become allergic to the drugs their mother take while nursing.

Among the drugs that can reach potentially harmful levels in the infant are the pain killers aspirin, the antibiotics (Penicillin, Ampicillin, Chloramphenicol, Sulphona-mides and Flagyl) the psychoactive drugs (Valium, Lithium, Methadone) radio active iodine and other thyroid drugs, anticonvulsants, anti cancer drugs etc. Women who are breast-feeding should not take any drugs without consulting their physicians.

Keeping herself free of infection : The lactating mother should maintain a good personal hygiene. Any infection she gets may harm her baby also. By taking proper care she can avoid many infectious diseases and thus providing a good health to her baby too.