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### “RELATION OF ANTI-NATAL DIET WITH INFANT BIRTH WEIGHT”

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#### **ABSTRACT:**

Women's health and nutritional status affects her capacity to withstand the stress of pregnancy, childbirth and postpartum period and also her capacity to produce a healthy baby. Most pregnant women in India are anemic and many teenage mothers are not fully grown to withstand the pressure of the pregnancy. Many women could help themselves if they had basic information about nutrition and health, but they lack both the information and resources to use.

During childhood, boys and girls require equal amount of nutrients. Yet, in many places young girls receive less from family pot than their brothers. In addition, it is the custom in many societies for adult women along with young girls to eat after the men have had their food as a result that they tend to get less of the more nutritious food.

**Key words:** Nutrition, Women health, Pregnancy, diet

### AIMS AND OBJECTIVES:

- Educate the families and especially women on the importance of Nutrition during their Pregnant and Non-pregnant status.
- To stress on the importance of different nutrients for the pregnant woman.

### INTRODUCTION:

Pregnancy, child birth and lactation are special phases in a woman's life. Diet during the

Pregnancy should be adequate to maintain or improve the health status of the mother.

- In Ayurveda according to 'charaka', the diet consumed by the pregnant woman gets converted into 'Rasa' due to physiological processes. This 'Rasa' has mainly three functions, first is nourishment of her body, second is nourishment of the fetus and third is lactation.<sup>1</sup>
- Kashyap says that this diet should be according the *Desh* (Region) *kaal*(Season), *Agni*( Individual Digestion capacity)<sup>2</sup>
- Fertilized ovum is a single cell structure and within 280days it becomes a multi-cellular 2800gms fetus so it requires much more energy which is obtained from 'Aahar' or diet.
- In India majority of the woman are suffering from anemia due to socioeconomic condition and food habits. Many women are in sub-standard health and nutritional status.

Maternal malnutrition implies lack of sufficient food or deficiency of a specific nutrient. This is often aggravated by a heavy workload and made still more difficult by a limited access to the basic resources. It is noteworthy that when a female child begins life as an

undernourished infant, with frequent illnesses and poor nutrition during childhood, she attains maturity at a suboptimal level, for undertaking pregnancy and lactation. As factors producing malnutrition continue to persist, she herself as well as the offspring is further handicapped by the pregnancy and malnutrition.<sup>3</sup>

Reasons for hindered growth of women in different stages of her life

Childhood:

1. Deficient from birth
2. Low dietary intake
3. Male sex preference
4. Heavy work load

Adolescence:

1. Menstrual cycle [blood loss]
2. Heavy work load
3. Diet restrictions

Motherhood:

1. Early marriages
2. Repeated pregnancies
3. Repeated lactation
4. Inadequate food intake

### Inadequate maternal nutrition during pregnancy may result in:

**Maternal:**

- Deficiency of nutrients Iron,folate,B12 (anemia),Vit.A (xerophthalmia)
- Anemia, Hemorrhage.
- Insufficient fat stores
- Maternal Death
- Sub-optimal lactation.

**Materno fetal:**

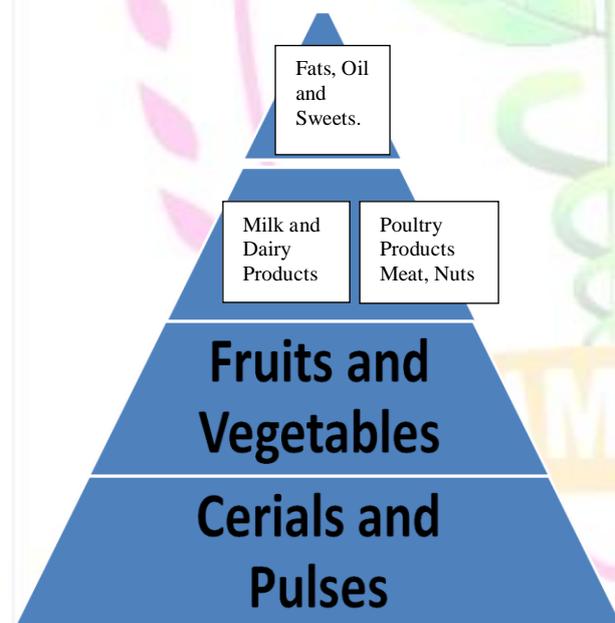
- Abortion
- Still birth
- Intrauterine growth Retardation

**Infant:**

- Premature delivery
- Low birth weight
- Suboptimal neonatal stores
- Growth retardation
- Mental retardation
- Neonatal death<sup>4</sup>

**Anti-Natal Diet:**

**Food guide Pyramid**



**Fig: 1.1**

**Source:** Novak's Gynecology, Jonathan S. Berek, Lippincott Williams and Wilkins, 2002, Preventive and Primitive Care, figure 8.1, Food guide pyramid.

- Women with moderate amount of work require 2200 calories a day.
- Every pregnant woman should be provided with 300 calories in addition to her normal diet and 700 more calories during lactation.

- If possible the pregnant woman should have plenty of milk; eggs, fish, poultry and meat.
- Pregnant woman should be encouraged to increase pulses, dark green leafy vegetables, groundnuts in her diet if she is vegetarian .
- She should have jiggery instead of sugar ,eat ragi or bajara preparation ,sesame seeds.
- Every woman should be provided with Supplementation of folic acid tablet for first 3 months and afterwards iron and calcium supplementation from the fourth month of the Pregnancy.
- Treat specific deficiency diseases accordingly.
- Provide nutritional health education to the girls in their adolescence and to younger Parents. It will overcome the problem of food faddism and taboos.

**SUMMARY OF CLINICAL STUDY:**

1. For the analysis of Maternal Nutrition, 30 pregnant women were studied in 2 groups. Amongst 30 women, 15 were from economical backward class and resided in an urban slum. All were free from any medical organic disorder. The age group of these women was in the range 20-30.
2. The first group: All 15 women and their families were migrant construction workers and had education of primary level.
3. Two of the 15 woman never visited for the anti-natal checkup, 8 women came for anti-natal check up only once and the rest came for the check-up only twice.

4. The rest 15 women belonged to middle economic strata and were from fairly rich family ground and were well educated. They used to come for regular Anti-natal check-ups.
5. Blood pressure of all women was normal for all the 30 patients.
6. All patients were ‘primie-para’ patients, their delivery occurred in normal and at 38-40 gestational week.
7. Baby birth weight of the first group was between 2000gm – 2600gm.
8. Baby birth weight of the second group was between 2700gm-3500gm

## OBSERVATION OF THE CLINICAL STUDY:

### Birth weight of the baby

- The mother’s diet has direct influence on the weight of the baby at birth. We see the average birth weight of an infant, born to a poorly nourished woman to be very low.
- Low birth weight is a sign of immaturity which in turn leads to high infant death or various nutritional diseases or it results in suffrage from various infectious diseases for the infant.

## CONCLUSION:

- Health education activity and nutritional interventions reduce maternal mortality and morbidity.
- Health education activity and nutritional interventions improves birth weight of the fetus, It reduce neonatal morbidity and mortality.

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