

## **NORMAL DIETETICS AND MODE OF LIFE FOR PREGNANT WOMAN W.S.R. TO GARBHINI-PARICHARYA**

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### **Abstract**

Woman reproductive period bears a lot of importance, because it is very much near to disease. Pregnancy is not a disease condition, but a state of physical and mental stress. During pre and post-natal period, common problems challenged by the woman are nausea, vomiting, anaemia, constipation, abortion, low birth weight baby, still birth, eclampsia, pre-eclampsia etc. Every woman should be ensured free from complication during gestation period, and then everyone can have a safe delivery and get a healthy offspring. Ayurveda is a science which offers a peculiar routine for a pregnant woman which is known as Garbhini-paricharya. It reschedules the pattern of woman's life to ensure proper diet and nutrition.

**Key words:** Dietetics; Pregnant woman; Garbhini-paricharya.

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## INTRODUCTION

Ayurveda laid emphasis on the importance of caring of mother before, during and after pregnancy. The woman is who procreates children and propagates the human species. Dharma (righteousness), Artha (wealth), Lakshami (auspiciousness) and Loka (the entire universe) are represented in every woman.<sup>[1]</sup> Ayurveda regards the woman and her ability to produce and care for children, as the basis of family and life, which in turn, is the foundation of the society. But to the contrary we have the following data.<sup>[2]</sup> In 2003, maternal mortality rate was 301 per 10000. Maternal Mortality Rate is due to hemorrhage is 38% and due to abortion is 8% of the maternal death. Infant mortality rate is 64 per 1000 live birth. Neonatal mortality rate is 44 per 1000 live birth. 30% neonate is Low birth weight baby.

Behind these entire problems major thing is the diet during pregnancy and the mode of life. Food itself is a drug by its right use.<sup>[3]</sup> The requirement of body is fulfilled by food and the scheduled work should be according to right quantity and in right manner, will cause no any dukhah (trouble). The holy book Bhagvadgeeta also explain these by the verse<sup>[4]</sup>

*Yuktāhāravihārasya yuktaceṣṭasya karmasu  
svapnāvabodhasya yogobhavati duḥkhahā*

which means yoga puts an end to all sorrows of humans. If we follow this philosophy in the some special condition like pregnancy period, the health of pregnant woman could be maintained. Care of pregnant lady is very important for better progeny because child is the future citizen of the nation. But health of the child depends upon the health of mother. Thus maternal care and maternal health are intimately associated with the child care and child health. So mother and child are considered as one unit. Acharya Charaka says

that pregnant lady is just like the oil filled bowl:<sup>[5]</sup>

*Pūrāmiva tailapātramasaikñobhayātāntarvartanē  
bhavatyupacaryā*

Means the pregnant lady (Antarvartani) should be treated or cared just like a pot filled with oil, as slight oscillation of such pot causes spilling of oil, similarly slight excitement or stress to the lady can initiate abortion etc.

To overcome the problem during pregnancy period many ancient books of Ayurveda suggest some special life style called Garbhini paricharya (rules to be followed during pregnancy). Nearly 80 - 90% problems are eliminated by healthy lifestyle. Now a day's incidence of pre-eclampsia and eclampsia is increasing because of the abnormal life style. So now a day's Garbhini-paricharya is very essential for the prevention of present era problems related to the pregnant lady and fetus. Good lifestyle can release the physical stress and mental stress and facilitate the good condition for child birth.

## MATERIAL AND METHODS

All the data and literatures are collected from Ayurvedic texts, modern medical books and from available websites.

### Diet schedule:

Acharya Charaka says that the pregnant woman who desires of producing a healthy and good looking child should give up non-congenial diet and mode of life and protect herself by doing good conduct and using congenial diets and mode of life.<sup>[5]</sup> She should use palatable, liquid, sweet and unctuous substances treated with appetizing medicinal herbs. This mode of life should continue till delivery.<sup>[6]</sup> What so-ever eatables or drinkables are consumed by pregnant women, same will become congenial to the fetus, thus diet should

be taken considering place of living time or season and digestive capacity, it should never be neglected.<sup>[7]</sup>

Acharyas have mentioned some common articles beneficial for pregnant lady like Sali and Sastika rice, wheat flour (whole or unrefined), mudga (green gram), flour of parched rice, butter, cow's ghee, Madhu (honey), Draksha (*Vitis vinifera*), ripped mango, banana, jack fruit, fruit of amalaki (*Embllica officinalis*), other sweet and sour substances, anointment with cooling agent, musk, sandal and camphor, wearing of garland, moonlight bath, massage, soft bed, cool air, anabolic or gratifying edibles, embracing beloved and other pleasing mode of life along with desired food.<sup>[8]</sup> Milk provide nourishment and stability to the fetus, meat helps in the achievement of pregnancy, provides nourishment to the fetus, suppresses Vata of pregnant lady and meat soup is a good medicine for the woman.<sup>[9]</sup>

Acharya first advises the common diet schedule and then describes the diet plan according to the month of pregnancy. Pregnant woman should at least follow the monthly diet plan.<sup>[6]</sup> During the first three months pregnant woman should take mainly sweet, cold and liquid diet at short interval. In the fourth month - cooked rice with curd and pleasant food mixed with milk and butter, meat of wild animals. In the fifth month of pregnancy cooked sasti rice with milk, meat of wild animals along with food mixed with milk and ghrita. In the sixth month, pregnant ladies are advised to take ghrita (ghee) or rice gruel medicated with gokshura (*Tribulus terrestris*). In the seventh month, pregnant lady should take medicated ghrita that helps in proper growth and development of fetus. In the 8-9 months, to remove the constipation and accumulated feces, Anuvasan (oil enema) and Niruhavasti (decoction enema) are given. After this she should be given unctuous gruels and meat-soup of wild animals. The body of woman thus treated becomes unctuous, gain

strength and delivers a good healthy baby normally without complication.

Some avoidable things is also described in the diet and life style of the pregnant lady, like mixture of different types of food, unhygienic, dry and cold (cooked before meal time), alcohol, very hot and cold, heavy food which is digested in more time, anupamamsa (more fatty meat), bitter astringent and more spice food etc. are should avoid during this condition.

### **Mode of life which is Acceptable**

Acharya Susruta has advised that the woman from the first day of pregnancy should remain in high spirit, pious decorated with ornaments, wear clean white garments and perform religious rites, has to do auspicious deeds and worship deity, brahmanas and priest. Her seating and sleeping place should be covered with soft cushion or mattress, not be very high possessing elevated upper portion for head, rest should be perfect and very comfortable.<sup>[6]</sup> Use of cold decoction of pounded leaves of drugs for bath which is capable of suppressing vata.<sup>[10]</sup>

### **Mode of life which are avoidable (vihara) or Garbhoupghatakarabhava**

Acharya Susruta has mentioned that from the day of conception, the woman should totally give up coitus, exercise, excessive satiation (santarpana or anabolic), excessive emaciation (aptarpana or catabolism), sleeping in day and awakening in night, grief, riding on vehicle, fear, squatting or the posture of sitting on the hams with the sole of feet touching the ground (utkataasana), and avoid untimely use of snehana (oiling), bloodletting, and suppression of natural urges. She should not touch dirty or disfigured persons possessing less body part, should give up foul smelling, ugly sight and exciting story, should not eat dried up, stale, putrefied or wet food. She should avoiding outing, visit of lonely place, crimination

ground or shade of tree, anger, talking in high pitch etc. all the things likely to harm the fetus. She should not fatigue herself.<sup>[6]</sup> Other Acharyas also said for avoiding the weight lifting, forward bending and fasting.<sup>[11]</sup> Any type of trauma physical or psychological is harmful for mother and fetus.

## DISCUSSION

The benefits of this dietetic regimen and life style prescribed for the woman will have normal development of fetus. Acharya Charaka says that by this regimen woman remains healthy and delivers the child possessing good health, energy or strength, voice, compactness and much superior to other family member and also prevent the other complication during the period of pregnancy like stillbirth, abortion, preterm delivery, postpartum hemorrhage etc.<sup>[12]</sup>

By the use of this regimen and daily schedule from first to nine month her garbhdharni (fetal membrane), birth canal, kukshi (abdomen), sacral region, flank and lower back becomes soft, vayu moves in the right path or direction, feces, urine and placenta are excreted or expelled easily by their respective passage at the time of birth, will have no any complications and delivery occur easily at own right time.<sup>[12]</sup>

According to the Ayurvedic principles rasa i.e. nutrients absorbed from the food is derived from diet taken by the pregnant lady and serves three purposes.<sup>[13]</sup> They are nourishment of her own body, nourishment of the fetus and formation of milk for nourishment of baby after birth.

During pregnancy food requirement increases because so many changes occurs like weight increases in case of normal healthy lady - gain nearly 9-11 kg (20-25 lb) during her pregnancy period. Due to this, basal metabolic rate (BMR) increases, blood volume is increased by 25%, but hemoglobin is

decreases i.e. <12 g/dl called physiological anemia, extra requirement for fetal growth.<sup>[14]</sup>

## RDA (Recommended Dietary Allowances) of pregnant lady<sup>[15]</sup>

**Table 1: Recommended Dietary Allowances of pregnant lady**

Sl. No.	RDA	Requirement level
1.	Energy	300 k cal. extra i.e. total 2000 - 2100 k cal./day
2.	Protein	15 g i.e. 60-65 g / day
3.	Fat	10 g i.e. 30g / day
4.	Calcium	600 mg i.e.1000 mg / day
5.	Fe	8 mg i.e. 38 mg / day
6.	Folic acid	300 µ g i.e. 400 µ g / day
7.	Vit. A	200 IU i.e. 1000 I.U. / day
8.	Ascorbic acid	60 mg / day

The demand of other nutrients is also increased by few ratios during pregnancy. This is the main basic requirement during pregnancy, which could be fulfilled by diet plan. (Table 1) But during this period, less acid and pepsin are produced by the stomach, regurgitation of stomach contents into the esophagus cause heartburn sometimes, this is a physiological condition. The reduced motility of the intestinal muscles may contribute to constipation; all these conditions facilitate the less consumption of diet and create the worse condition during pregnancy.<sup>[16]</sup> So, if we use light food and more nutritious like old Sali and Sastika (type of rice) which is naturally light in digestion will have good result. Intake of parboiled is more nutritious because it contain more water soluble vitamins and all essential amino acids, nearly 2.8 mg Fe per 100 g serving and good amount of folic acid. Old rice contains short chain carbohydrate which give energy in very less time i.e. digests in less time.<sup>[17]</sup>

Flour of perched rice is antiemetic. It is given in early trimester and also in diarrhea and fever.<sup>[18]</sup> Whole wheat flour is rich in fiber,

protein -12 g per 100 g, Fe - 4.9 mg / 100 g and so it relieves constipation. Wheat and rice have madhura vipaka and sheeta virya properties, so it subsides the aggravated Vata and does not cause acidity. Green gram in the pulses is naturally easy digestible, rich source of folic acid, contain all essential amino acids and is a good source of protein which is very essential in this period.<sup>[17]</sup>

Milk is the ideal food for all human beings; it increases the oja, immunity and provides the all nutrients.<sup>[19]</sup> Cow's milk and curd contain high protein- fat ratio and is a good source of folic acid, but it is less in buffalo's milk. Tyrosine amino acid is absent in buffalo's milk but present in cow's milk. During pregnancy mainly Vata dosha is more aggravated and agni is mandagni. Ghrita and butter is the main source of fat and subsides the vata and increases the agni. Ghrita prepared from the curd of cow's milk contain short chain fatty acid which has less or very less deposition properties in the vessels and butter contains more carotene.<sup>[12]</sup>

Honey and jaggery is used as sweetener and it contain fibers. Honey has decholesterolising property and prevents the deposition of fatty acid in the vessels. Fructose of honey is the source of energy and compensate with the requirement of glucose in the first trimester.<sup>[20]</sup>

In the group of fruits, banana, amla, jackfruit, mango, draksha (grapes) is compulsory because it is a good source of minerals like Na, K, Mg, Zn, Fe, and vit-C, carotene and source of essential aminoacids etc. Amla is highly nutritious and is an important dietary source of Vitamin C, minerals and amino acids. The edible fruit tissue contains protein concentration 3-fold and ascorbic acid concentration 160-fold compared to that of the apple. The fruit also contains considerably higher concentration of most minerals and amino acids than apples. Glutamic acid, proline, aspartic acid, alanine, and lysine are 29.6%, 14.6%, 8.1%, 5.4% and 5.3%

respectively of the total amino acids. The pulpy portion of fruit, dried and freed from the nuts contains gallic acid 1.32%, tannin, sugar 36.10%; gum 13.75%; albumin 13.08%; crude cellulose 17.08%; mineral matter 4.12% and moisture 3.83%. Along all these things and generally light, cold and sweet beverages, freshly cooked food which the pregnant woman likes should be given frequently in small quantity.<sup>[21]</sup> All these improve the physical health and to some extent mental health also, but basically for mental improvement using the sandal wood in the form of paste over the body, flowers, musk, massage of oil mixed with essential oil, walking in the garden, moonlight bath, soft bed, cool air, anabolic and gratifying food, embracing beloved and other pleasing mood of life, etc gives a soothing effect over the mind and removes the stress and improve the physical and mental condition of the pregnant woman.<sup>[22]</sup>

### **First trimester**

After the description of normal articles which is more beneficial during pregnancy, the monthly schedule of diet according to the condition of the pregnant woman, like in the first three months generally use of cold, sweet, liquid and more minerals containing diet frequently in small quantity like milk sweetened with honey, krisara (khichari) etc should be consumed. During this period woman mainly suffers with nausea and vomiting which leads to dehydration and loss of nutrients. Due to this reason, diet of the lady should contain easy digestible, liquid and sweet in small amount which fulfill the loss of water, nutrients and provide the energy quickly. Liquid and small amount don't aggravate the nausea and vomiting.

### **Second trimester**

After first trimester, for the growth of the fetus give cooked Sali and Sasti rice with Takra (butter milk), pleasant food mixed with milk

and butter, meat or meat soup of wild animal, liver etc. gives good bioavailable protein and iron for the growth of the fetus. In the fifth month Sali, Sasti rice with milk or cooked with milk in the form of payasa, milk mixed with ghrita, and wild animal meat for the growth is given. At the end of sixth month pedal edema or whole body edema occurs, for this ghrita medicated with gokshura is mentioned. Gokshura is a good diuretic and also remove the retention of urine. Rice with ghrita is also given during the second trimester to improve the health of the mother and the fetus.<sup>[6]</sup>

In the second and last trimester more requirements of fat and protein is necessary for the growth and development of fetus. According to Ayurveda mamsa dhatu holds the meda dhatu, this may be the reason that protein is also advised in large quantity along with fat (ghee and butter in Akshapraman). Gradually from first to last trimester Vata dosha is aggravated, so for the pacification of Vata dosha intake of snigdha ahara is very important.<sup>[12]</sup>

### **Third trimester**

Edema persists in the last trimester; in the seventh month the medicated ghrita (medicated with Prithakparnyadi group like Prithakaparni (*Uraria picta*), Gokshura, Castor (root), Satavari (*Asparagus racemosus*), Vidrigandha (*Pueraria tuberosa*) etc is advised mainly to remove the edema and it also helps in the growth and development of the fetus. Prithakaparnyadi group suppress the Vata and pitta, acts as a good diuretics and as a growth promoting agent. In the last of third trimester due to pressure of the gravid uterus over the large intestine and effect of progesterone, the pregnant woman will have constipation and so anuvasana and niruhavasti (enema) is advised, which relieves the constipation and suppress the aggravated vata. Vasti also stimulates the autonomous nervous

system governing the myometrium and helps in the regulating their function during labor.<sup>[12]</sup> Milk and drugs of the Madhura (sweet) group like Satavari, Vidarikanda etc. has been advised for entire pregnancy period. Milk is the wholesome diet and these drugs help in the maintenance of proper health of mother and growth and development of the fetus.<sup>[6]</sup>

### **Discussion on Mode of life**

Those which produce the psychological and physical strain such as grief, exercise, more sexual intercourse etc. should be avoided why because it may precipitate abortion especially in ladies prone for the abortion or preterm labor. Avoiding the visit to cremation ground etc. is good to avoid sudden shock. Over weight carrying or vehicle riding may precipitate abortion due to sudden increase in intra-abdominal pressure; prolonged squatting in abnormal postures and supine position may influence placental and uterine blood flow (due to pressure of gravid uterus on iliac vessels) thus cause abortion or intrauterine death or other abnormalities.

### **Dietetic regulations**

Use of excess bitter, sour, astringent, oily and spicy food, more fatty meat, meat of aquatic animals, garlic, onion etc causes burning sensation, acidity and intake of food without hunger, all these cause digestive abnormalities because during the gestational period the women have low digestive power. Use of over satiation may excessively increase the body weight of mother and fetus there by increases the incidence of pregnancy toxemia and complication of labor. Specific rays emitted during eclipse may produce the abnormalities in the fetus. Purifying measures like emesis etc. can also stimulate the abortion due to reflex stimulation of the myometrium. Therefore avoiding these factors is good during the pregnancy period.

## Diet chart for one day

During the period of pregnancy, main diet recommended by the Acharya is old rice, wheat flour, milk, ghrita, butter and meat.<sup>[23]</sup> (Table 2)

**Table 2: Ayurvedic diet chart for pregnant lady**

Sl. No.	Ayurvedic diet	Requirement level
1.	Old Sali / Sasti rice	200 g
2.	Wheat flour (Whole)	200 g
3.	Milk	500 ml
4.	Curd	250 g
5.	Pulses (green gram dal)	40 g
6.	Green vegetables	40 g
7.	Fruits (Banana/mango)	2 pieces
8.	Grapes/Amla	30-50 g
9.	Draksha	4-5 pieces
10.	Butter	20 g
11.	Ghrit (cow's)	10 g
12.	Oil	5-10 g
13.	Honey	30 g
14.	Jiggery	10 g

## For non-vegetarian

50% Pulses and 250 ml milk replaced with-150 g line meat (non-fatty)

In the regular diet, generally the food which the pregnant woman likes and which are beneficial and necessary for the proper development of the fetus without any complications should be intaken. Good analysis of nutritive value, its role and deficiency value are known and hence it is easy to manage the problems accordingly. Comparing the modern science in addition to these described diet schedule, addition of the folic acid supplementation will have a good result and may avoid maximum problems related to fetus.

During the last trimester i.e. in eight or ninth month medicated Vasti (enema) karma which pacifies the Vata dosha and removing the accumulated fecal matter is mentioned in the classics. Due to pressure over rectum,

pregnant woman will have constipation and blood pressure symptoms, but the vasti karma mentioned by the acharyas during the last trimester will correct the pressure symptoms and causes anulomana of Vatadosha.

## CONCLUSION

Even though pregnancy and child birth is a normal physiological process, it is associated with great pathological potential. By adopting daily routine and dietary advice the incidence of high risk group pregnancy (morbidity) and mortality of the fetus can be reduced. Regular scheduled diet and life style of mother prevent the complication of pregnancy and give good quality progeny by proper growth and development of the fetus.

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