

Diet In Pregnancy With Diabetes**Dr.Rohit C.Patil,**HOD,Dept.of Swasthavritta,
Late B.V.Kale Ayurved College,Latur.**Introduction-**

Diet is an important factor that is a must for well being of an Individual and to control and prevent diseases.

Diabetes is such a disease which can be easily kept under Control with Dietary modifications.In Diabetes with Pregnancy,the role of Diet is more as common beliefs may hamper the sugar control.

प्राणाः प्राणभृतामन्नमन् लोकोऽभिधावति वर्णः प्रसादः
सौख्यं जीवितं प्रतिभा सुखम् तुष्टिः पुष्टिर्बलं मेधा
सर्वमन्ने प्रतिष्ठितम् लौकिकं कर्म यदत्तौ स्वर्गतौ यच्च
वैदिकम्

(CHARAK SUTRA 27/349-350)

- Aahar is life of living beings.
- Happiness,Life,satisfaction,power,Intelligence all are dependent on Aahar.
- Aahar is Base of Life.

आयुर्वेदाचार्य महर्षि चरक यांनीही लिहिले आहे
की

‘देहो आहारसंभवः

महणजे अन्नापासून शरीर तयार होते.

हे उपनिषद मध्ये देखील सांगितले आहे.

‘आहार शुद्धौ सत्त्वाशुद्धिः सत्त्व-शुद्धौ।ध्रुवा स्मृतिः, स्मृतिलम्भे सर्वग्रंथीनां
विप्रमोक्षाः,

शुद्ध आहाराने मन शुद्ध होते. त्यामुळे बुद्धी शुद्ध व निश्चयी होते.मग पवित्र आणि निश्चयी बुद्धीपासून मोक्षप्राप्ती सहजतेने येते.

NUTRITIONAL THERAPY-

- Nutritional Therapy is an Integral part of Diabetes as well as Pregnancy Management.
- Key Principle is to reduce overall energy intake and limit the proportion derived from Carbohydrates.

A common myth harboured among expectant mothers is to ‘eat for two’ during pregnancy.

However, following this dictum literally, can put her health and that of her baby’s into trouble.

This is because, while caloric intake needs to increase during pregnancy, consumption of exact double the amount of food, one had before conception, isn’t advisable.

Eating during pregnancy needs to be planned meticulously and cautiously.

Medical Nutrition Therapy for Pregnancy with Diabetes

Every Pregnant Diabetic should get MNT as soon as Diagnosed.

It primarily involves a carbohydrate controlled balanced meal plan which promotes-

Optimal nutrition for maternal and foetal health

Achievement and maintenance of Normoglycaemia

- MNT by a registered dietitian is the cornerstone for diabetes management in women with pregestational and gestational diabetes.
- The nutritional management of women with preexisting and gestational diabetes does not differ and has the same therapeutic goals: adequate nutrition and weight gain, plus

prevention of ketosis and postprandial hyperglycemia.

- After a thorough assessment, the dietitian and the woman develop an individualized meal plan to achieve desired treatment goals.
- The dietitian and the woman examine and discuss lifestyle influences that have a bearing on MNT.
- Normal pregnancy nutritional guidelines focus on several dietary elements like calorie intake, macronutrient proportion, vitamins and minerals.
- As per ICMR Guidelines, Calorie requirement depends on age, activity, prepregnancy weight and stage of pregnancy.
- Approximately 30 to 40 Kcal/kg ideal body weight or an increment of 300 kcal/day above the basal requirement is needed in 2nd and 3rd trimesters.
- Eating 3- 4 servings of fruits and vegetables, 9 servings of whole grains for energy, 3 servings of dairy for calcium, and 3 servings of meat to reach daily protein requirements.

Diet in Diabetes with Pregnancy

- General Principles
 - 55 % CARB/ 25 % PRO/ 20 % FAT
 - Normal weight gain 10-12 kg
 - Liberal Exercise program to optimize blood glucose control.

Recommended Dietary allowances during Pregnancy

Nutrients	RDA
Energy kcal	
Sedentary	1900+350
Moderate activity	2230+350
Heavy worker	2850+350
Proteins (g)	50+23
Percentage carbohydrates	60
Percentage proteins	15
Percentage fats	25
Fiber (g)	40
Calcium (mg)	1200
Iron (mg)	35
Thiamine (mg)	1.2
Riboflavin (mg)	1.4
Niacin (mg)	14
Folic acid (mcg)	500
Beta-carotene (mcg)	6400
Vitamin C (mg)	60

RDA: Recommended daily allowances

CARBOHYDRATES

- The carbohydrate parameters of the diet are: 12.5% of the total daily carbohydrate at breakfast, 28 % at lunch and dinner, with the remainder in three snacks distributed throughout the day.
- Complex carbohydrates (like whole-grain cereals like oats, bajra, jowar, ragi, whole pulses,vegetables and fruits with skins) should be preferred over simple carbohydrates like food with lots of added sugar or honey, or foods that are made from refined white flour.
- Spreading carbohydrate foods over the day will help to prevent this. It is better to spread carbohydrate foods over 3 small meals and 2–3 snacks each day than taking 3 large meals.

PROTEINS

Protein requirement in pregnancy is increased (additional 23 g/day) to allow for fetal growth.

- At least 3 serving of protein foods are required every day to meet the increased demand.
- Sources of protein are milk and milk products, egg, fish, chicken, pulses (dal), nuts etc

FATS

- Saturated fat intake (sources - ghee, butter, coconut oil, palm oil, red meat, organ meat, full cream milk,etc) should be less than 10 % of total calories and dietary cholesterol should be less than 300 mg/dL. In obese and overweight patients, a lower-fat diet overall can help slow the rate of weight gain.

CALCIUM

- Calcium requirement during pregnancy increases like no other time in your life. You need about 1200 mg a day to ensure proper skeletal development of your baby.
- Apart from your regular calcium pills that you would be prescribed during pregnancy, opt for natural food sources like dairy products, nuts, broccoli and other leafy greens that have a good amount of calcium in them.

FOLATE

- This nutrient is important for fetal brain and spine development. About 400 mg of folic acid is needed each day to meet your needs. Rich sources of this nutrient are tofu or soya *paneer*, dark green veggies like spinach and fenugreek, bottle gourd, muskmelon, peanuts and peanut butter among others.

IRON

- It plays an important role in cell and organ development and also helps in hemoglobin formation that is important during pregnancy. Iron intake should be around 30 mg a day for pregnant woman. Rich sources of iron are dark green veggies like spinach, fenugreek, broccoli, dates, raisins, figs, beetroots and apples.

FIBRE

- Fibre: High fiber foods especially soluble fibre may help control blood sugar by delaying gastric emptying, retarding the entry of glucose into the blood stream and lessening the postprandial rise in
- blood sugar. Soluble fiber in flax seed, psyllium husk, oat bran, legumes (dried beans of all kinds, peas
- and lentils), and pectin (from fruit, such as apples) and forms in root vegetables (such as carrots) are helpful.

Water:

Have at least two litres of water every day, not just to rid your body of toxins and waste build up, but to help your body revive and keep functioning smoothly. For the same reason sipping on other healthy drinks like coconut water or a chilled glass of lime juice will also help.

MEAL PORTION

- Half the plate should be covered with Vegetables, preferably two kinds
- One quarter Protein source
- One quarter should be starch
- A fruit and dairy product should complete the meal.

PRACTICAL TIPS

- Eat meals at regular times, never skip any meals
- Follow the 3 meal + 3 snack pattern,
- Avoid long gaps - not be more than 2 ½-3 h' time gap between meals
- Choose a low glycemic food for breakfast
- Fill half your plate with vegetables and quarter with proteins and carbohydrates
- Grow your own organic vegetables in your own backyard/terrace!
- Non-vegetarians should choose leaner cuts of the meat
- Drink 2-3 L of water daily and more if you work outdoors

Be active; do 15-20 min of walking after each meal.

- Cut back on salt, too much salt is associated with high blood pressure, which increases the risk of diabetes complications.
- Remember that drinks count too. Stick to water or sugar-free drinks.
- Don't look for special diet foods. Diabetes UK says they are expensive and can contain as much fat and calories as ordinary versions, and they can also have a laxative effect.

BEDTIME SNACK

The bedtime snack (should be taken 2 h after dinner, that is just before going to bed) is very important to prevent a hypoglycemia in the early morning hours followed by high fasting sugars (Somogyi effect).

Groundnuts, fruits, sprouts, whole gram pulses, nuts, and milk are good bedtime snack options.

Conclusion

Nutrition interventions for Pregnant Diabetes should emphasize overall healthy food choices, portion control, and cooking practices that can be continued postpartum and may help prevent later diabetes, obesity and cardiovascular disease.

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