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**Dietary guide for patients with gestational diabetes mellitus
(GDM)**

(English Translation)

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard was proposed by the National Health Standards Committee Nutrition Standards Committee.

This standard was drafted. Peking Union Medical College Hospital of China Academy of Medical Sciences, Beijing Maternity Hospital, Haidian Maternal and Child Health Hospital, PLA General Hospital.

1 Scope

This standard specifies dietary guidelines, energy and recommended intake of nutrients for patients with gestational diabetes.

This standard applies to dietary guidance for patients with gestational diabetes.

2 Terms and definitions

The following terms and definitions apply to this document.

Gestational diabetes mellitus; GDM Different degrees of impaired glucose tolerance during pregnancy, excluding diabetes that pre-pregnancy.

Medical nutrition therapy; nutritional nutrition therapy; MNT Nutritional interventions and management measures for patients with specific diseases under clinical conditions, including individualized nutrition assessment and diagnosis of patients, and the development, implementation and monitoring of nutritional treatment programmes.

Glycemic index glycemic index; GI After eating food containing 50g of carbohydrates, the

area under the blood glucose curve within 2h was increased by the increase in fasting time compared to the phase after eating 50g of glucose.

Should increase. It is generally defined that $GI < 55$ is a low GI food, $55 \leq GI \leq 70$ is a medium GI food, and $GI > 70$ is a high GI food. Common food GI values are attached Record A.

Blood sugar load glycemic load; GL the product of the actual amount of carbohydrate available (in g) per unit weight of food and the glycemic index (GI). usually Define $GL \leq 10$ for low GL food, $10 < GL < 20$ for medium GL food, and $GL \geq 20$ for high GL food. See Appendix B for common food GL values.

Food exchange list

Divide common foods into different categories by source and nature. Proteins, fats and carbohydrates of the same type of food in a certain weight the proportions are similar and the energy produced is similar. Food rooms are interchangeable to enrich the range of food choices.

3 Dietary guidance goals

Patients with GDM should be treated with medical nutrition, and by adjusting their eating behaviors, they should form reasonable dietary habits to meet the nutritional needs during pregnancy.

Maintain proper weight gain during pregnancy, achieve and maintain reasonable blood glucose levels, avoid ketosis, and improve clinical outcomes.

4 The main principles of medical nutrition therapy

4.1.1 Energy

Ingestion of energy should meet the physiological and metabolic needs of pregnant women and fetuses, maintain appropriate weight gain during pregnancy, and achieve and maintain reasonable blood sugar Level. According to the Body Mass Index (BMI), the average energy intake of GDM patients is shown in Table 1.

Table 1 Average energy intake of GDM patients

Pre-pregnancy weight	Pre-pregnancy BMI Kg/m ²	Energy coefficient kJ/kg (kcal/kg)	Early pregnancy kJ/d(kcal/d)	Mid-pregnancy kJ/d(kcal/d)	Late pregnancy kJ/d(kcal/d)
Underweight < 18.5	146167(3540)	8360(2000)	9614(2300)	10241(2450)	Normal weight
$18.5 \leq BMI < 24.0$	125 146 (30 35)	7524 (1800)	8778 (2100)	9405 (2250)	
Overweight/obesity ≥ 24.0	104125(2530)	6270(1500)	7524(1800)	8151(1950)	Normal and low-weight GDM patients (pre-pregnancy BMI $< 24\text{kg/m}^2$) energy intake should be based on non-pregnancy daily energy intake, pregnancy the early pregnancy remained

unchanged, with an increase of 1254 kJ/d (300 kcal/d) in the second trimester and 1881 kJ/d (450 kcal/d) in the third trimester.

Overweight and obese patients with GDM (pre-pregnancy BMI ≥ 24 kg/m²) can be based on weight gain, fetal development, blood glucose and ketone bodies Individualized energy setting for level and exercise status, generally should not be lower than 6270kJ/d (1500kcal/d) in early pregnancy, mid-pregnancy and pregnancy the late stage should generally not be lower than 7524kJ/d (1800kcal/d).

4.1.2 Weight gain

During pregnancy, reasonable weight gain should be maintained according to different individual conditions such as pre-pregnancy body mass index and actual gestational age. See Table 2.

Table 2 GDM pregnancy weight gain reference

Pre-pregnancy weight status Pre-pregnancy body mass index (BMI) Kg/m² Total weight gain during pregnancy Kg Mean and range of weight gain rates in the second and third trimesters Kg/week Underweight < 18.5 12.5 18.0 0.51 (0.44-0.58) Normal weight $18.5 \leq \text{BMI} < 24.0$ 11.5 16.0 0.42 (0.35-0.50) Overweight $24.0 \leq \text{BMI} < 28.0$ 7.0 11.5 0.28 (0.23-0.33) Obesity ≥ 28.0 5.0 9.0 0.22 (0.17-0.27) Note. This table is taken from the "Guidelines for the Diagnosis and Treatment of Pregnancy with Diabetes" (Chinese Medical Association Perinatal Medicine Branch Pregnancy and Diabetes Cooperative Group, 2014).

4.1.3 Carbohydrates

Carbohydrates provide 45% to 55% of the total energy. Daily carbohydrates are not less than 130g. Preferential carbonization Compounds (such as coarse grains) or low GI/GL type staple foods, try to avoid the intake of single disaccharides (such as glucose, sucrose, etc.). Encourage whole grain food the object accounts for more than 1/3 of the total daily staple food.

The dietary fiber intake should be 25g ~ 30g.

4.1.4 Protein

The energy provided by the protein accounts for 15% to 20% of the total energy. Protein intake is based on a non-pregnancy intake of 1.0 g/(kg·d).

Ingestion during the first trimester of pregnancy increased by 15 g/d and 30 g/d in the second trimester and the third trimester, respectively. It is recommended that fish, poultry, eggs and beans account for the total protein intake per day.

Half or more of the amount.

4.1.5 Fat

The energy provided by fat accounts for 25% to 30% of the total energy. Saturated fatty acids account for no more than 7% of total energy, and monounsaturated fatty acids should account for fat.

More than 1/3 of the total. Trans fatty acids should be less than 1% of total energy. Dicosahexaenoic acid (DHA) should reach 200 mg/d.

4.1.6 Vitamins, minerals and water

The reference intake for pregnant women can be based on the "Chinese Dietary Nutrient Reference Intake (2013 Edition)".

4.2 Food selection

Promote food diversification, daily intake of cereal potatoes, fruits and vegetables, livestock and poultry, milk beans and oils, can refer to food delivery Change the copy (see Appendix C). The daily diet should be 12 or more, and 25 or more per week. Valley potato based on energy goals and Carbohydrate energy supply is better than adjusting daily intake. The preferred low GI/GL complex carbohydrate food, in which the whole grain is not less than the total amount of potato.

1/3. Animals, poultry, fish, milk, eggs and beans can be individually adjusted according to the energy target and the protein reference recommended intake for the actual gestational age.

whole. Reduce the processing of meat and animal foods with high levels of saturated fatty acids. Vegetable intake should reach 500g/d and above, among which green leafy vegetables the dishes account for 2/3 and above. Under conditions of stable blood sugar, low GI/GL fruit, generally 150g/d to 200g/d, can be used to eat between meals. Cooking the oil does not exceed 25g/d per day, and the salt does not exceed 6g/d. Avoid drinking alcoholic beverages and eating sugar-added foods.

4.3 Meal arrangements

It is recommended to have 3 meals a day and 2 to 3 times a day to avoid hypoglycemia. Carbohydrates should be included in both daily meals and meals.

The number is relatively fixed. The energy of three meals in the morning, middle and evening accounts for 10%, 15%, 30%, 30% of the total energy, respectively.

5% 10% of the total energy. For insulin or hypoglycemic agents, medications that control blood sugar should be closely coordinated with dietary arrangements.