

News and Views

DOI : 10.5530/ijcep.2021.8.1.11

Dietary Management of Gestational Diabetes Mellitus

Increase in blood glucose during pregnancy is known as gestational diabetes mellitus (GDM). The main feature of GDM is insulin resistance, which resembles type 2 diabetes mellitus (T2DM).^[1] Generally, GDM occurs in the 2nd trimester of pregnancy and the blood glucose usually reverts to normal following delivery. In few cases, the blood glucose does not return to normal after delivery and continues as T2DM if not adequately managed. However, many GDM women develop diabetes later in life postpartum, if diabetes is not managed vigorously during pregnancy. The management of GDM involves medical nutrition therapy (MNT), metformin / insulin therapy.^[2] Nevertheless, as GDM is the disease of pregnancy, usually medicines are avoided to protect the health of the fetus. The various alternative therapeutic options available for GDM include dietary management, which is considered to be the first treatment of choice.^[2]

For a balanced diet for GDM, one should need to eat a variety of healthy foods. In general, GDM patients should eat:

- Plenty of fruits and vegetables.
- Moderate amounts of proteins and healthy fats.
- Moderate amounts of whole grains, such as bread, cereal, pasta, and rice, plus starchy vegetables, such as corn and peas.
- The foods that have a lot of sugar, such as soft drinks, fruit juices, and pastries, should be avoided.
- Each day, there should be three small- to moderate-sized meals and one or more snacks. Do not skip meals and snacks. Keep the amount and types of food (carbohydrates, fats, and proteins) about the same from day to day. This can help keeping blood sugar stable.

Carbohydrates

- Less than half the calories you eat should come from carbohydrates.
- Most carbohydrates are found in starchy or sugary foods. They include bread, rice, pasta, cereal, potatoes, peas, corn, fruit, fruit juice, milk, yogurt, cookies, candy, soda, and other sweets.
- High-fiber, whole-grain carbohydrates are healthy choices. These types of carbohydrates are called complex carbohydrates.
- Try to avoid eating simple carbohydrates, such as potatoes, french-fries, white rice, candy, soda, and other sweets. This is because they cause the blood sugar to rise quickly.
- Vegetables decrease blood sugar, should be eaten in more quantity. Enjoy lots of them.

Grains, Beans, and Starchy Vegetables

- Eat 6 or more servings a day. One serving equals 1 slice bread, 1 ounce (28 g) ready-to-eat cereal, 1/2 cup (105 g) cooked rice or pasta, 1 English muffin.
- Choose foods loaded with vitamins, minerals, fiber, and healthy carbohydrates. They include whole-grain breads and cereals, whole grains, such as barley or oats, beans, brown or wild rice, whole-wheat pasta, starchy vegetables, such as corn and peas,
- Use whole-wheat or other whole-grain flours in cooking and baking. Eat more low-fat breads, such as tortillas, English muffins, and pita bread.

Vegetables

- Eat 3 to 5 servings a day. One serving equals 1 cup (340 g) leafy, green vegetables, 1 cup (340 g) cooked or chopped raw leafy vegetables, 3/4 cup (255 g) vegetable juice, 1/2 cup (170 g) of chopped vegetables, cooked or raw.
- Healthy vegetable choices include fresh or frozen vegetables without added sauces, fats, or salt, dark green and deep yellow vegetables, such as spinach, broccoli, romaine lettuce, carrots, and peppers.

Fruits

- Eat 2 to 4 servings a day. One serving equals 1 medium whole fruit (such as a banana, apple, or orange), 1/2 cup (170 g) chopped, frozen, cooked, or canned fruit, 3/4 cup (180 milliliters) fruit juice.
- Healthy fruit choices include citrus fruits, such as oranges, grapefruits, and tangerines.

Milk and Dairy

- Eat 4 servings of low-fat or non-fat dairy products a day. One serving equals 1 cup (240 milliliters) milk or yogurt, 1 1/2 oz (42 g) natural cheese, 2 oz (56 g) processed cheese.
- Healthy dairy choices include low-fat or non-fat milk or yogurt. Avoid yogurt with added sugar or artificial sweeteners. Dairy products are a great source of protein, calcium, and phosphorus.

Protein (Meat, Fish, Dry Beans, Eggs, and Nuts)

- Eat 2 to 3 servings a day. One serving equals 2 to 3 oz (55 to 84 g) cooked meat, poultry, or fish, 1/2 cup (170 g) cooked beans, 1 egg, 1 tablespoon (30 g) peanut butter.
- Healthy protein choices include fish and poultry, lean cuts of beef, veal, pork or wild game. Trim all visible fat from meat. Bake, roast, broil, grill, or boil instead of frying. Foods from this group are excellent sources of B complex vitamins, protein, iron, and zinc.

Sweets

- Sweets are high in fat and sugar, so should be restricted. Keep portion sizes small. Even sugar-free sweets should not be the best choice, as they may not be free of carbohydrates or calories.

Fats

- In general, intake of fatty foods should be restricted. Go easy on butter, margarine, salad dressing, cooking oil, and desserts.
- Avoid fats high in saturated fat such as hamburger, cheese, bacon, and butter.
- Don't cut fats and oils from your diet entirely. They provide energy for growth and are essential for fetal brain development.
- Choose healthy oils, such as canola oil, olive oil, peanut oil, and safflower oil. Include nuts, avocados, and olives.

The management of GDM with the diet as described above decreases blood sugar and maintains good health of the fetus. If diet management can be strictly followed, many GDM patients do not required metformin or insulin. All obstetricians should try the dietary management of GDM before deciding to start anti-diabetic drugs. GDM is a disease which can easily be treated with dietary management in its early phase and in its milder form.

REFERENCES

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Compiled by:

Editor's office, IJCEP.

Email: editor@ijcep.org