



# Nutrition Pearls for Optimal Gestational Diabetes Mellitus Management

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The American Diabetes Association (ADA) recommends that gestational diabetes mellitus (GDM) should initially be managed with diet and exercise, with medication added only if blood sugars remain elevated. The goal of medical nutrition therapy (MNT) in GDM management is to promote adequate maternal weight gain, healthy growth of fetus, and normoglycemia.<sup>1,2</sup>

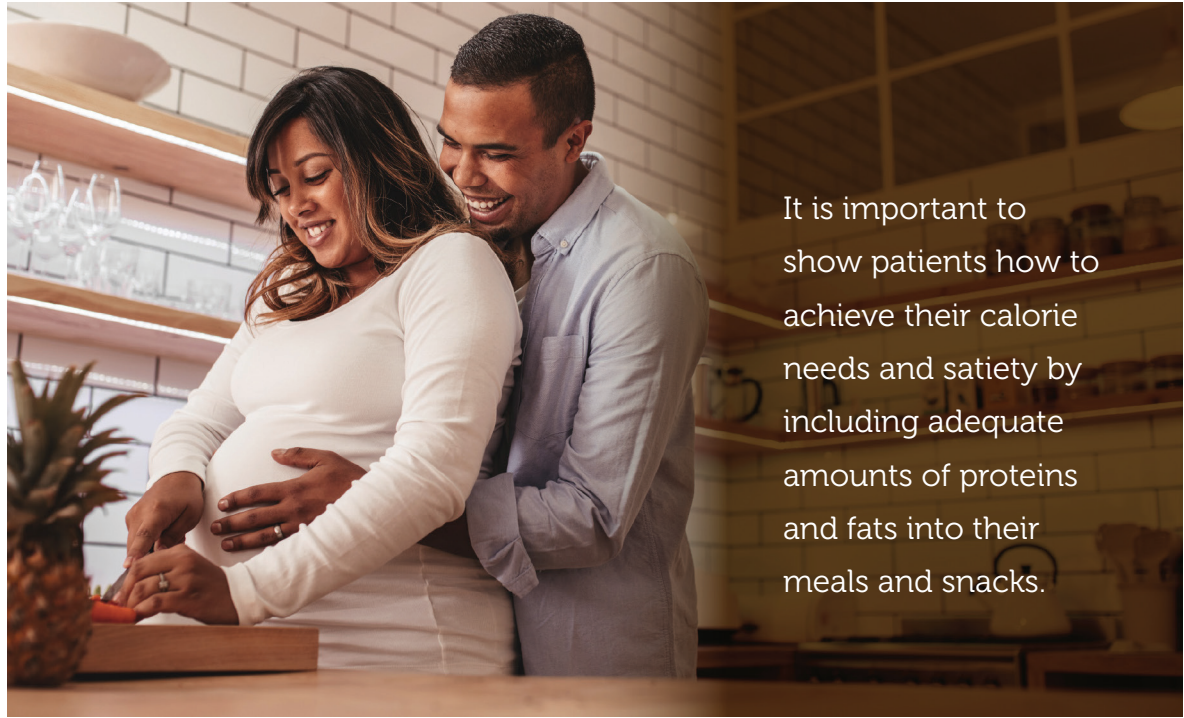
A referral to a registered dietitian can help patients navigate a GDM diagnosis by assessing their beliefs, practices, barriers, weight status/goals, and caloric needs. Furthermore, a majority of women with GDM can adequately manage their blood sugars with diet and lifestyle modifications. However, talking about macronutrients does not mean very much if patients do not understand how to adjust the foods they actually eat. Nutrition and lifestyle information should be provided in a way that is easy to digest and not too overwhelming.

The Dos and Don'ts provided here are meant to guide the clinician working with patients who have GDM to help patients feel more in control of their diet and glucose levels.

Diet recommendations need to be tailored to limit foods that cause post-meal spikes and to be inclusive of foods that have a more benign effect on the patient's blood sugar.

## GDM Nutrition Dos

1. Assess typical dietary intake and patient's knowledge by having them rank foods they commonly eat as having a low, medium, or high impact on their blood sugar. Based on the patient's knowledge and ranking of foods, the dietitian can clarify which foods, quantities, and combinations are likely to increase blood sugars the most. Diet recommendations need to be tailored to limit foods that cause post-meal spikes and be inclusive of foods that have a more benign effect on the patient's blood sugar.
2. Decode and simplify eating by demonstrating "real meals" using a plate planner. Go even further by helping patients identify where the foods they regularly consume fit on the plate.
3. Encourage food label reading, but keep it simple.
  - Serving size: Many do not realize that the nutrition information on a food label is consistent with a particular serving size. So it is important to explain this before reviewing other parts of the label.
  - Total carbohydrate: A common mistake patients make is that they focus exclusively on sugar content of foods and disregard the total carbohydrate content. Compare/contrast food labels to teach patients how to understand carbohydrate content on the label. For example, things like pasta may be low in sugar and high in carbohydrate, and milk is moderate in both total carbohydrate



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and sugar content. To help patients see these differences, it is helpful to give them carbohydrate ranges per meal and help them understand how much sugar to look for on the label.

- Once patients have a clearer understanding of how carbohydrate loading/quantity may directly impact their blood sugars, it is helpful to assign a carbohydrate budget to them. For example, you may give a snack budget of 15 to 30 g of carbohydrate. Therefore, they'll know if a snack has 45 g of carbohydrates, it exceeds their carbohydrate budget.
  - Fiber: Emphasize the role fiber has on slowing digestion. Teach patients to select foods that will increase satiety and potentially inhibit blood glucose spikes.
  - Sugars: Reiterate that sugars are part of the carbohydrate total.
4. For many, a GDM diagnosis inevitably results in pretty significant carbohydrate decreases. Therefore, it is important to show patients how to achieve their calorie needs and satiety by including adequate amounts of proteins and fats into their meals and snacks. Patients often complain after getting diagnosed with GDM that they are losing weight or suddenly have stopped gaining weight. For some, this might be a welcome side effect of this unwanted diagnosis; however, solely focusing on carb counting will leave patients hungry and low in their daily energy needs.
  5. Empower your patients to use their home finger-sticks to understand if their meals need modification. Most patients will be checking their blood sugars 4 times per day, and once they understand how quality and portion of carbohydrates at meals quickly influence their glucose results, most of them will easily learn how to make swift changes to prevent spikes from recurring.
  6. Consider reviewing food logs if the patient has suboptimal glucose control or is losing weight after receiving MNT. Often the greatest value to patients is when they get feedback about their dietary logs in comparison to their blood sugar values or whether their diet is too low in calories.
  7. Keep a variety of tools in your educator toolbox, including measuring cups and serving spoons, simple recipes, sample meal plans, and materials in several languages. The plate planner<sup>3</sup> and supermarket flyers can also be very helpful.

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- Plate planner: There are endless ways to use the plate planner. It is especially useful in helping patients learn what healthy portions look like and which foods should be on the different divisions of the plate. Furthermore, it is an excellent way to help patients plan meals that are inclusive of foods they typically eat. Cultural plate planners can be useful in helping patients self-identify with meal plans and portions that fit their cultural beliefs and dietary practices in a visually engaging and simple way.
  - Supermarket flyers: Supermarket flyers can be used to select healthier alternatives to favorite/frequently purchased foods. The dietitian helps patients set parameters for making healthy food choices, planning meals, and choosing ingredients ahead of time, especially if they are seeking lower carb and leaner protein options.
8. When working with patients with low reading literacy, use photos of actual foods and consider having patients provide images of foods they consume at home. It may also be helpful to use actual household plates and utensils to help patients understand how to modify portions.
  9. It is crucial for patients to understand that sometimes blood sugars cannot be managed with diet alone. This may be evident when fasting blood sugars are high or even a modest amount of carbohydrate results in excessively high blood sugars.

Although the glycemic index may be an instrumental tool in helping to identify foods that may be causing blood glucose elevations, using the glycemic load (which takes into account both the glycemic index and the quantity of carbohydrate in a serving) may be a more practical approach.



#### GDM Nutrition Don'ts

1. Diet recommendations should not be one size fits all but tailored to patients' medical needs and cultural and/or dietary beliefs and practices. Many people may modify their diets based on their religious practices and ethnic customs. It is important to understand these practices and how they fit into the individual's management of GDM before making recommendations.
2. Focusing on the glycemic index alone versus the nutritional quality and quantity of foods may promote elimination of nutrient-dense foods. Although the glycemic index may be an instrumental tool in helping to identify foods that may be causing blood glucose elevations, using the glycemic load (which takes into account both the glycemic index and the quantity of carbohydrate in a serving) may be a more practical approach. For example, parsnip, pineapple, and bananas have a high glycemic index but a low-intermediate glycemic load and may have a benign effect on glucose levels.<sup>4</sup>
3. Very low carbohydrate diets are not evidence-based and can lead to unnecessary maternal weight loss, poor fetal growth, and ketosis.





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4. It's important to emphasize that exchange serving sizes are not portion sizes, as people often confuse the two. Also, you may find your patients obsessively counting the protein, fat, and carb grams of everything they eat, and this approach too may result in restrictive dietary practices and weight loss.

### Conclusion

MNT should give patients skills and confidence to proactively make dietary changes without being overly restrictive. Pregnancy is an exciting time for many women, but GDM can be a daunting diagnosis, and tailoring dietary recommendations can help patients enjoy food and not fear meal times. Food is a cultural and ethnic thread. MNT for GDM needs to incorporate foods that patients are familiar with and actually eat. ■

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