

Nutrition for Gestational Diabetes

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Objectives

- * State the importance of good blood glucose control during pregnancy.
- * Identify foods that have the most impact on blood glucose.
- * Identify how many meals/snacks a woman with GDM may need each day.

Defining GDM

- * Glucose intolerance – 2nd or 3rd trimester
- * 5% (1:20)
- * Glucose intolerance in 1st trimester?

Impact of Poor BG Control

- * Larger than normal babies
 - * Difficult delivery
 - * Higher risk of C-section
- * Risk for baby
 - * Hypoglycemia
 - * Shoulder dislocation
 - * Future diabetes risk

Medical Nutrition Therapy

- * Research shows MNT is primary intervention in the management of GDM
- * RD calculates kcal needs, establishes meal plan
- * Monitors weight changes and adjusts meal plan accordingly
- * RDs in OB offices or DSME programs

General Principles of Db Meal Plan

- * Macronutrient balance
- * Timing of meals/snacks
- * Frequency

Fat

- * Guidelines are similar to the general population.
- * 2015 Dietary Guideline changes

Fat

- * Limit saturated and trans fat (<7%)
 - * Butter, sour cream, cream cheese
- * Polyunsaturated fats (~10%)
 - * Vegetable oils, salad dressing
- * Focus monounsaturated
 - * Most nuts/seeds, avocado

Fat

- * Omega-3 fatty acids
 - * Important for neural and visual development
 - * 12 oz/week of low-mercury, fatty fish
- * Most commonly eaten low-mercury fish:
 - * Shrimp
 - * Canned light tuna
 - * Salmon
 - * Pollock
 - * Catfish
- * Impact on blood glucose

Protein

- * No increase in protein intake until 2nd half
- * Focus on lean proteins
 - * Lean ground beef
 - * Pork loin
 - * Fish
 - * 1% cottage cheese
- * Minimal impact on blood glucose

Carbohydrates

- * Macronutrient with the greatest impact
 - * Does not mean it should be avoided
- * Carb counting is crucial to BG control
 - * Some pick up on this faster than others

What are carbs?

- * Grains
- * Beans
- * Starchy vegetables
- * Fruit and fruit juice
- * Milk and yogurt
- * Sweets

Finding Carb Information

- * Label reading
- * Carb reference book (free)
 - * www.novomedlink.com
- * Glycemic Index (GI)

Label Reading

The header is a solid blue rectangle with rounded corners. Below the text, there are several overlapping, wavy, light blue shapes that create a sense of depth and movement, resembling stylized waves or layers.

Label Reading

Nutrition Facts

Serving Size 1 cup (228g)

Servings Per Container about 2

Amount Per Serving

Calories 250 Calories from Fat 110

% Daily Value*

Total Fat 12g **18%**

Saturated Fat 3g **15%**

Trans Fat 3g

Cholesterol 30mg **10%**

Sodium 470mg **20%**

Total Carbohydrate 31g **10%**

Dietary Fiber 0g **0%**

Sugars 5g

Proteins 5g

Vitamin A

100%

Meal Plan Recommendations

- * 3 meals and 2-4 snacks
 - * Why eat so often?
- * Pregnancy hormones rise
 - * Effectiveness of insulin blunted
 - * Individualized to tolerance and preference
 - * Week of gestation
 - * Exercise
 - * Timing of meals

More Meal Plan Recommendations

- * Minimum of 175 gms/day carbs and less than 45% of energy
- * If BG control not adequate medication maybe needed
- * Pay attention to nutrient composition
 - * Need balanced intake
 - * Carb counting can make it easy to lose sight of balance

Carbs to be Limited

- * Rapidly absorbed carbs (limit or avoid):
 - * Sugar, honey, molasses, sugary desserts
 - * Fruit juice, regular soda, energy drinks, sports drink, sweetened coffee beverages
 - * Highly processed breakfast cereals, instant noodles

Recommended Carbs

- * Slowly digested carbs:
 - * Old-fashioned oatmeal, whole grain breads, dried cooked beans, lentils
 - * Fresh fruit (limit to 1 exchange/15 grams) per meal/snack
 - * Liberal amounts of fresh vegetables
 - * Milk (1% or fat-free) 4-8 oz per meal/snack

Breakfast Considerations

- * Most insulin resistant/most sensitive to carbs
- * 15-30 grams restriction may be needed
- * Avoid:
 - * Instant cereal/ready-to-eat cereal
 - * Fruit/juice
 - * Milk
 - * Bagels and croissants
 - * Rice porridge (cream of rice)

Snack Considerations

- * Both fruit AND milk during the same snack can lead to hyperglycemia
- * Allow 2-3 hours between meals and snacks (unless medication dictates otherwise)
- * Snacks should have fewer carbs than lunch and dinner
- * Recommend bedtime snack of 7 gms protein with 15-30 gms carbs
- * Bedtime snack and breakfast \leq 10 hours apart

Other Considerations

- * Nonnutritive sweeteners
 - * Aspartame (NutraSweet®, Sugar Twin®, Equal®)
 - * Acesulfame potassium (Sweet One®)
 - * Saccharin (Sweet'N Low®)
 - * Sucralose (Splenda®)
 - * Neotame (Newtame®)
- * Considered safe during pregnancy within ADI
 - * [Table of ADI for Sweeteners](#)

Other Considerations

- * Stevia based sweeteners
 - * GRAS list – therefore considered safe in pg
 - * EXCEPT – insufficient evidence stevia in its whole herb form during pg
- * Caffeine
 - * High intakes have been linked to adverse outcomes
 - * Sensible advice: discourage intake ≥ 200 mg/day
 - * 2-6 oz cup of coffee

Postpartum Considerations

- * Women with GDM at increased risk of T2
- * Breastfeeding can reduce the risk
- * Postpartum testing
 - * NEW GUIDELINES – 4-12 weeks
 - * OGTT not A1c

Postpartum Referrals

- * To reduce risk of developing T2
 - * Diabetes Prevention Program
 - * [Diabetes Prevention in Michigan](#)
- * For those with persistent diabetes (T2)
 - * Diabetes Self-Management Education
 - * [List of DSME Programs in Michigan](#)

References

- * [Standards of Medical Care in Diabetes 2017](#)
- * [CDAPP Sweet Success Guidelines for Care 2015](#)



* Thank you!