Supporting Expectant Moms with Diabetes

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Financial Disclosure

I have no relevant financial relationships with any commercial interests that create a conflict of interest to affect continuing education content.
Objectives

At the conclusion of this presentation, participants will be able to:

1. Discuss strategies used in managing diabetes in pregnancy.
2. Develop a list of resources to use with women who have diabetes in pregnancy.
Lifestyle Management\textsuperscript{1}

70–85% of women with gestational diabetes (GDM) can control it with lifestyle modification alone.
Medical Nutrition Therapy$^{1,2}$

1st MNT visit: 60-90 min
2nd MNT visit within one week: 30-45 min
3rd MNT visit within 2-3 weeks: 15-45 min
Additional visits every 2-3 weeks or as needed for duration of pregnancy

- $\geq 175$g carbohydrate
- $\geq 71$g protein
- 28g fiber

Fasting: 70-95 mg/dL
1 hr postprandial: 110-140 mg/dL
2 hr postprandial: 100-120 mg/dL
A1C: $< 6\%$ (or $< 7\%$ as needed)

TIR 63-140 mg/dL: $> 70\%$
TAR $> 140$ mg/dL: $< 25\%$
TBR $< 63$ mg/dL: $< 4\%$
TBR $< 54$ mg/dL: $< 1\%$
GWG Recommendations\textsuperscript{3, 4, 5}

<table>
<thead>
<tr>
<th>Prepregnancy BMI</th>
<th>Total Weight Gain</th>
<th>Rates of Weight Gain\textsuperscript{*}</th>
<th>Twins</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Range in kg</td>
<td>Range in lbs</td>
<td>Mean (range) in kg/week</td>
</tr>
<tr>
<td>Underweight (&lt; 18.5 kg/m\textsuperscript{2})</td>
<td>12.5–18</td>
<td>28–40</td>
<td>0.51 (0.44–0.58)</td>
</tr>
<tr>
<td>Normal weight (18.5–24.9 kg/m\textsuperscript{2})</td>
<td>11.5–16</td>
<td>25–35</td>
<td>0.42 (0.35–0.50)</td>
</tr>
<tr>
<td>Overweight (25.0–29.9 kg/m\textsuperscript{2})</td>
<td>7–11.5</td>
<td>15–25</td>
<td>0.28 (0.23–0.33)</td>
</tr>
<tr>
<td></td>
<td>2.7–6.4</td>
<td>6–14</td>
<td></td>
</tr>
<tr>
<td>Obese (\geq 30.0 kg/m\textsuperscript{2})</td>
<td>5–9</td>
<td>11–20</td>
<td>0.22 (0.17–0.27)</td>
</tr>
</tbody>
</table>

\textsuperscript{*} Calculations assume a 0.5–2 kg (1.1–4.4 lbs) weight gain in the first trimester (based on Siega-Riz et al., 1994; Abrams et al., 1995; Carmichael et al., 1997).
GWG Recommendations

Recommended Pregnancy Weight Gain
for underweight mothers

TOTAL

Recommended Pregnancy Weight Gain
for normal weight mothers

Recommended Pregnancy Weight Gain
for overweight mothers

Recommended Pregnancy Weight Gain
for obese mothers

This graph displays the median (solid color) and range (faded color) of recommended weight gain (lbs) for pregnant women within underweight BMI categories.

This graph displays the median (solid color) and range (faded color) of recommended weight gain (lbs) for pregnant women within normal BMI categories.

This graph displays the median (solid color) and range (faded color) of recommended weight gain (lbs) for pregnant women within overweight BMI categories.

This graph displays the median (solid color) and range (faded color) of recommended weight gain (lbs) for pregnant women within obese BMI categories.
GWG Recommendations
Physical Activity

30-60 minutes of moderate-intensity exercise at least 3-4 times per week at up to 80% of age-predicted MHR

- Walking
- Dancing
- Stationary cycling
- Aerobic exercises
- Resistance exercises
- Stretching exercises
- Hydrotherapy, water aerobics

- Contact sports (or other activities) with a high risk of abdominal trauma or imbalance
- Scuba diving
- Hot yoga
- Hot pilates

Safe
Unsafe
Insulin Management¹

1. ↑ insulin sensitivity
   • ↓ daily insulin requirements
   • ↑ hypoglycemia
   • ↑ frequent blood glucose self-monitoring

2. ↑ insulin resistance
   • ↑ insulin dose weekly/biweekly
   • <50% basal insulin
   • >50% prandial insulin

3. ↑ insulin resistance
   • Leveling off/small decrease of insulin requirements late in trimester
   • Referral to specialized center
Mark Twain

“Habit is habit, and not to be flung out of the window by any man, but coaxed downstairs a step at a time.”
Why Can/Can’t They Change?

It’s easy to find a way to get some extra fruit and vegies in your day.
Time to Chat

What are some of the barriers to a healthy lifestyle in the environments in which your clients have grown up or currently live?
What Can/Can’t We Change?
Successful Counseling

- Self-monitoring
- Stress management
- Goal setting
- Reflective statements
- Stimulus control
- Social support
- Open-ended questions
- Summary points
- Cognitive restructuring
- Contingency management
- Affirmations
- Importance & confidence rulers
Praise

- Positive reinforcement
- Promote change talk
- Must be genuine
- What does she value?
- What motivates her?
Praise (con’t)

Avoid outcomes
- Weight
- Glycemic #s

Reinforce efforts
- Diet
- Activity
- Monitoring
- Showing up
Praise (more)

Paula has GDM and is in the second trimester of her pregnancy. She has not been prescribed medication but was asked to test her blood glucose levels in the morning (fasting) and two hours after each meal and to bring her log to each appointment. She did not bring her log to her first appointment and confessed that she often forgets to test anyway.
## What Genuine Praise Would You Offer?

<table>
<thead>
<tr>
<th></th>
<th>Fasting</th>
<th>2 hours after breakfast</th>
<th>2 hours after lunch</th>
<th>2 hours after dinner</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>109</td>
<td>122</td>
<td>115</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuesday</td>
<td>106</td>
<td>152</td>
<td></td>
<td>Missed walk after dinner</td>
<td></td>
</tr>
<tr>
<td>Wednesday</td>
<td>126</td>
<td>121</td>
<td>131</td>
<td>120</td>
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</tr>
<tr>
<td>Thursday</td>
<td>113</td>
<td>128</td>
<td>179</td>
<td>247</td>
<td>Sick</td>
</tr>
<tr>
<td>Friday</td>
<td>159</td>
<td>150</td>
<td>150</td>
<td></td>
<td>Sick</td>
</tr>
<tr>
<td>Saturday</td>
<td>127</td>
<td>121</td>
<td>140</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sunday</td>
<td>119</td>
<td>121</td>
<td>140</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Five A’s

<table>
<thead>
<tr>
<th>Definition</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ask</strong></td>
<td>Physician asks their patient about weight, nutrition, and/or exercise.</td>
</tr>
<tr>
<td><strong>Advise</strong></td>
<td>Physician provides the patient with clear, strong advice.</td>
</tr>
<tr>
<td><strong>Assess</strong></td>
<td>Physician verbally assesses patient’s readiness to change.</td>
</tr>
<tr>
<td><strong>Assist</strong></td>
<td>Physician provides brief counseling of self-help materials.</td>
</tr>
<tr>
<td><strong>Arrange</strong></td>
<td>Physician arranges for a follow-up with physicians or nutritionist.</td>
</tr>
</tbody>
</table>
OARS (1)

Resist the righting reflex!

O  Open-ended questions
A  Affirmations
R  Reflective listening
S  Summary points
When asked what concerns she wanted to add to the agenda, Paula said she wants to talk about how to control her blood sugars. You begin addressing her concern with:

“What do you think will help you achieve the blood sugars you want?”

Paula: “I don’t know. Walking seems to work pretty well, but sometimes my sugars are still high. I know you taught me about how to eat healthy, but it feels like too much to take on. Taking time to walk is already a challenge. I don’t know how to fit in the meal changes.”
OARS (3)

Counselor reflects: “I think what you are saying is that you can’t see a way to find time to address the changes needed to improve your eating. Is that correct?”

Paula: “Yes, I guess it is, but I know it’s important for my baby. I just feel overwhelmed by all that I have to do.”
OARS (4)

Counselor: “What are the things that you would like to see change with your eating?”

Paula: “Well, I know I need to watch my carbs, but the foods I’m used to eating are usually high in carbs. I need to plan meals that have low-carb foods, too. I would also like to eat out less.”
Counselor: “Here is what I’ve heard so far. You have made positive changes in your physical activity and think eating healthier is the next step you should take. On one hand, you’re concerned about the time that will take, but on the other hand, it’s important to you because you want the best for your baby. You want to plan low-carb foods into your meals and eat out less. Is there anything you want to add, or correct?”
Current Routine

- Checks out
- Buys high carb snack foods
- Shops after work
- Browses aisles quickly
- Buys fast food
- Skips her walk
- Plans dinners while shopping
- No meals for Sat-Mon
Stimulus Control

• Identify triggers associated with non-adherence
  • Help her address the issue before it happens
• People do not live in isolation
• Create safe spaces
Current Routine (con’t)

- Shops after work
- Browses aisles quickly
- Plans dinners while shopping
- Buys high carb snack foods
- Checks out

- Buys fast food
- Skips her walk
- No meals for Sat-Mon
Goal Setting & MI Rulers

- SMART goals
- Importance ruler
- Confidence ruler

“Why a 7, and not a 5?”
Promotes change talk

Super important/confident

Not at all important/confident

“Why a 7, and not a 10?”
Identifies barriers
ADA Diabetes Food Hub: https://www.diabetesfoodhub.org/
University of Nebraska-Lincoln Food and Nutrition Resources:

Preparing Freezer Meals At Home

1. Saves money
2. Incorporates family favorites
3. Allows control over ingredients
4. Allows control the amount and portion sizes
5. Provides knowledge of nutritional info
6. Saves time
Do Not Be Intimidated

• Start small
• Get comfortable with the idea
• Cook things you know your family likes
• Try a few dishes
• Build on your skills
• Not everything has to be a casserole
What Can You Freeze?

• Answer: almost anything
  • Beware of cream sauces, mayo
  • Raw meat vs. cooked meat
  • Quality ingredients
  • Baked Goods

Have I Convinced You Yet?

• Prepare to different stages of completion
  • Brown large batch of ground beef and freeze in one-pound servings for quick meals.
  • Chop several onions and freeze in one cup servings.
  • Making meatloaf? Make an extra and freeze it.
  • Double a favorite recipe and freeze one.
Recipe Demonstration
Slow Cooker Chipotle Burritos

- 2 lbs. boneless, skinless chicken breasts
- 1 16 oz. jar of salsa
- 1 teaspoon chili powder
- 1 teaspoon dried oregano
- 1 onion, chopped
- 1 canned chipotle pepper in adobo sauce*, chopped
- 1 can black beans, drained and rinsed
- 1 can whole kernel corn
- Flour or corn tortillas
- Optional toppings: Pico de Gallo, shredded lettuce, sour cream, shredded cheese, black olives, avocado, etc.

DIRECTIONS:
- Place chicken in a 3 or 4-quart crock pot. Combine the salsa, chili powder, oregano, chipotle pepper, corn and beans. Stir for a few seconds until well mixed and pour over meat. Cover and cook on low for 6-8 hours. Shred meat with 2 forks. Serve on tortillas with toppings of your choice.

FREEZING DIRECTIONS:
- Place chicken in gallon freezer bag. Combine the salsa, chili powder, oregano, and chipotle pepper. Blend for a few seconds until well mixed and pour over meat. Add beans and corn. Seal and place flat in freezer. When ready to use, place bag in refrigerator to thaw. After ingredients have thawed, place in crockpot and follow directions above.

*Since this recipe only uses 1 chipotle pepper, I like to freeze the remaining peppers from the can in ice cube trays (1 pepper per cube). Once frozen, I store them in a zip-top bag in the freezer and use as needed in recipes.
Easy Preparation

• When ready to prepare, thaw night before in refrigerator.
• Throw in the slow cooker the next morning on low.
• Shred when you get home and serve with tortillas, sour cream, and cheese.
• Can freeze the rest for later use also.
Three Cheese Lasagna Roll-ups

- 20 lasagna noodles, whole
- 32 ounces ricotta cheese
- 2 large eggs
- 1 cup shredded Parmesan cheese
- ½ teaspoon salt
- 1 teaspoon pepper
- ½ cup fresh spinach, chopped
- 1 tablespoon fresh basil, minced
- 1-2 cups mozzarella cheese, grated*
- Pasta sauce*

* Indicates ingredient won’t be used until cooking time

Makes 20 rollups
“What Would You Like to Try?”
Self-monitoring

• Consistently been shown to increase positive behavior changes
• Increases awareness
• Can provide important information
• Can help with patients that are stuck
## Resources

<table>
<thead>
<tr>
<th>Website/App</th>
<th>Food intake</th>
<th>Physical activity</th>
<th>Weight</th>
<th>Social support</th>
</tr>
</thead>
<tbody>
<tr>
<td>MyFitnessPal</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Lose It!</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>FatSecret</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Cronometer</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>SparkPeople</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>


Social Support

Role models

Overcome barriers

Commitment

Scrutiny

Accountability
Lowering DM Risk

Postpartum weight loss, then weight maintenance

<240 minutes moderate-intensity aerobic exercise/week

Metformin

Healthy eating patterns
References


References (con’t)


6. Healthy weight gain during pregnancy. What is the right amount of weight to gain during pregnancy? Available at: [http://resources.nationalacademies.org/Pregnancy/WhatToGain.html](http://resources.nationalacademies.org/Pregnancy/WhatToGain.html).


Questions

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Motivational Interviewing and CBT: Combining Strategies for Maximum Effectiveness by Naar & Safren