

# GUIDELINES FOR GESTATIONAL DIABETES

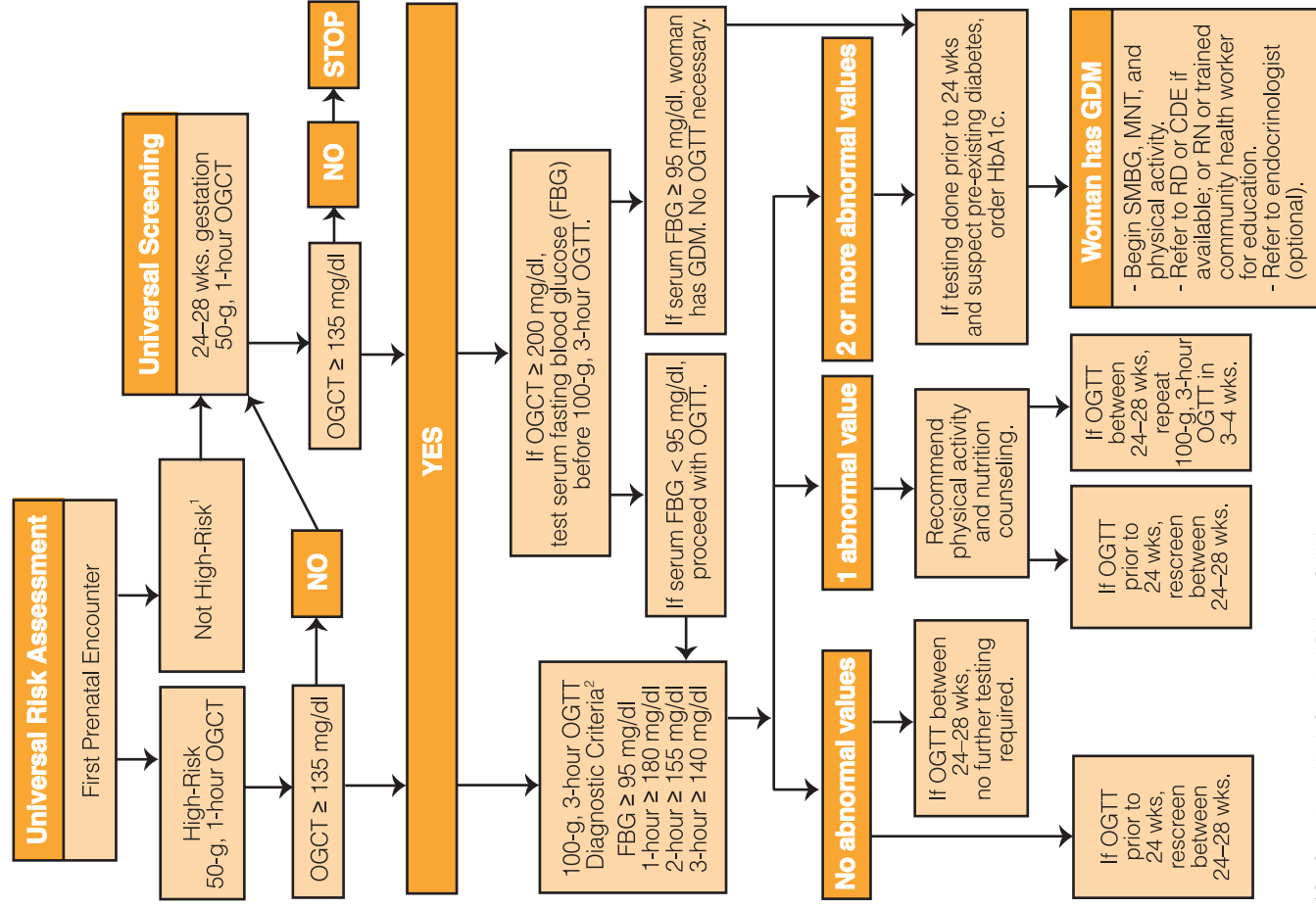


SCREENING AND DIAGNOSIS (OGCT = Oral Glucose Challenge Test, 1-hour OGTT = Oral Glucose Tolerance Test, 3-hour)									
<b>First Prenatal Encounter: Universal Risk Assessment</b>	<p>High-risk if any of the following:</p> <ul style="list-style-type: none"> <li>Advanced maternal age (&gt; 35 y.o.).</li> <li>Obese (BMI &gt; 29 kg/m<sup>2</sup> based on ppw).</li> <li>High-risk ethnic population.</li> <li>h/o GDM.</li> <li>Previous macrosomic infant.</li> <li>h/o GDM related OB complications.</li> <li>First degree relative w/ diabetes.</li> <li>PCOS.</li> <li>Glycosuria.</li> </ul> <p><b>High-risk:</b> Screen immediately with 50-g, 1-hour OGCT</p> <ul style="list-style-type: none"> <li>≥ 135 mg/dl, follow with 100-g, 3-hour OGTT.</li> <li>If suspect pre-existing diabetes, order HbA1c.</li> <li>&lt; 135 mg/dl, rescreen between 24–28 weeks.</li> </ul> <p><b>Not high-risk:</b> Follow-up with universal screening between 24–28 weeks.</p>								
<b>24–28 Weeks: Universal Screening</b>	<p>• Perform a 75-g OGTT, with plasma glucose measurement fasting and at 1 &amp; 2 hours, at 24-28 weeks of gestation in women not previously diagnosed with overt diabetes.</p> <p>See reverse for GDM Screening &amp; Diagnosis Algorithm</p> <p><b>OGTT Diagnostic Criteria for Gestational Diabetes*</b></p> <p>The diagnosis of GDM is made when any of the following plasma glucose values are exceeded.</p> <table border="1"> <thead> <tr> <th>Time</th> <th>mg/dl</th> </tr> </thead> <tbody> <tr> <td>Fasting</td> <td>≥ 92</td> </tr> <tr> <td>1-hour</td> <td>≥ 180</td> </tr> <tr> <td>2-hour</td> <td>≥ 153</td> </tr> </tbody> </table>	Time	mg/dl	Fasting	≥ 92	1-hour	≥ 180	2-hour	≥ 153
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MEDICAL NUTRITION THERAPY (MNT) AND PHYSICAL ACTIVITY									
<b>Meal Planning</b>	<ul style="list-style-type: none"> <li>Educate on healthy food choices and smaller, frequent meals throughout the day.</li> <li>Teach portion control (plate method or carbohydrate counting) and reading food labels.</li> <li>Refer to an RD or CDE if available, or an RN or trained community health worker.</li> </ul>								
<b>Food Record</b>	<ul style="list-style-type: none"> <li>Record food and beverage intake including what, amount (cups, etc.), and meal and snack times.</li> </ul>								
<b>Physical Activity</b>	<ul style="list-style-type: none"> <li>Recommend regular physical activity 30 min/day, 5 days/week.</li> <li>Consult with MD re: any contraindications.</li> </ul>								
BLOOD GLUCOSE MONITORING									
<p>Self-Monitoring Blood Glucose Goals</p> <table border="1"> <thead> <tr> <th>Time</th> <th>mg/dl</th> </tr> </thead> <tbody> <tr> <td>Fasting</td> <td>&lt; 95</td> </tr> <tr> <td>1-hour pp</td> <td>&lt; 130–140</td> </tr> <tr> <td>2-hour pp</td> <td>&lt; 120</td> </tr> </tbody> </table>	Time	mg/dl	Fasting	< 95	1-hour pp	< 130–140	2-hour pp	< 120	<ul style="list-style-type: none"> <li>Check and record BG 4x/day; fasting and 1 or 2-hours postprandial (pp) for a minimum of 2 weeks.</li> <li>Never discontinue SMBG during GDM. Remain vigilant as glucose intolerance increases as pregnancy progresses. If frequency is decreased, rotate SMBG at different meals each day.</li> <li>If 20% of BG values exceed the target while following prescribed nutrition and physical activity plan, consider medication therapy.</li> </ul>
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MEDICATION MANAGEMENT									
<b>Oral</b>	<ul style="list-style-type: none"> <li>Glyburide may be considered as an alternative to insulin.</li> <li>Metformin can be used with selected patients during pregnancy.</li> </ul>								
<b>Insulin</b>	<ul style="list-style-type: none"> <li>Use SMBG to guide the doses and timing of the insulin regimen.</li> <li>Aspart and Lispro are the most effective at reducing postprandial glycemic excursions.</li> <li>Regular and NPH have also been used safely in pregnancy</li> </ul>								
PRENATAL SURVEILLANCE AND DELIVERY MANAGEMENT									
<b>Surveillance</b>	<ul style="list-style-type: none"> <li>A fetal based strategy (AC &gt; 75<sup>th</sup> percentile at 28–33 weeks) may help identify women that may benefit from more intensive medical management.</li> <li>Prenatal surveillance may include NST, AFI, Biophysical Profile or Contraction Stress Test. Selection of the prenatal test is at the discretion of the practitioner.</li> <li>Monthly ultrasounds in the 3<sup>rd</sup> trimester to evaluate fetal growth; if LGA (&gt;90% fetal weight/gestational age) identified, antepartum fetal testing with NST/BPP should be considered.</li> </ul>								
<b>Diet Controlled</b>	<ul style="list-style-type: none"> <li>Euglycemic: initiate surveillance at 40 weeks.</li> <li>Not euglycemic: initiate surveillance at 36 weeks.</li> </ul>								
<b>Medication Controlled</b>	<ul style="list-style-type: none"> <li>If pregnancy is not otherwise complicated, initiate surveillance at 32–34 weeks.</li> </ul>								
<b>Delivery</b>	<ul style="list-style-type: none"> <li>There is no data to support delivery at &lt; 38 wks or cesarean delivery purely on the basis of GDM.</li> </ul>								
POSTPARTUM FOLLOW-UP									
<p>Due to the increased risk of developing type 2 diabetes, it is <b>crucial</b> that women return to their provider to receive the appropriate postpartum counseling, testing, and follow-up after a GDM pregnancy. See reverse for GDM Postpartum Algorithm.</p>									

These clinical guidelines (approved 9/12/2006) are adapted from the *American Diabetes Association (ADA) Standards of Medical Care in Diabetes—2006*. They are designed to assist clinicians in managing women with gestational diabetes and are not intended to replace a clinician's judgment or establish a protocol for all women with gestational diabetes.

\* American Diabetes Association, Carpenter and Coustan criteria.

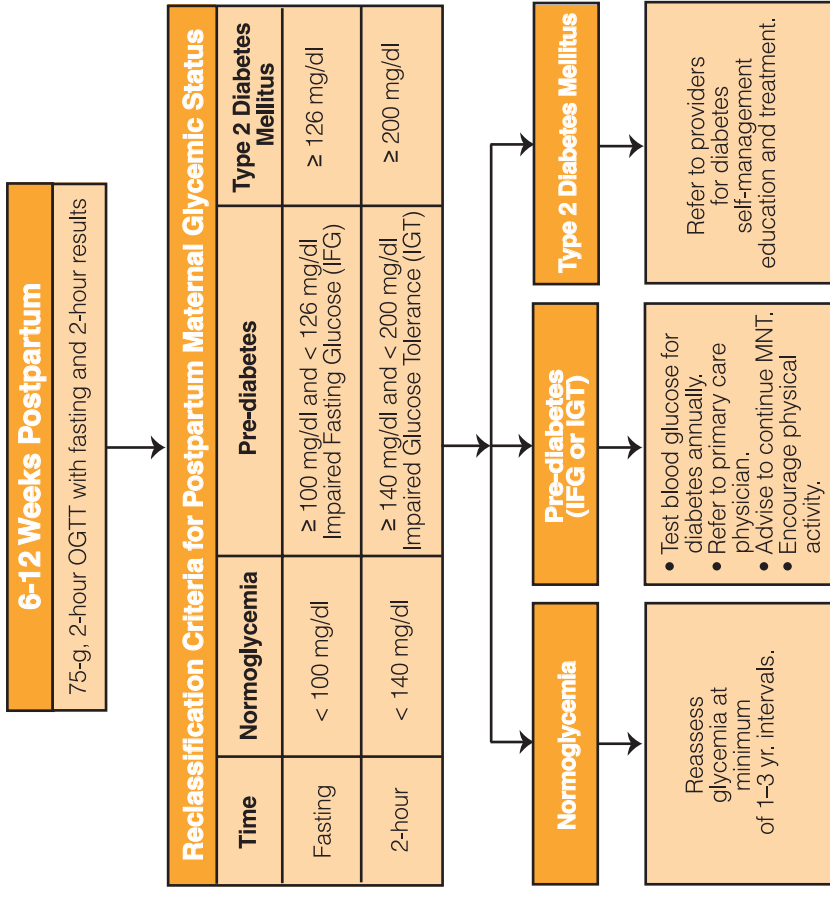
# Gestational Diabetes Screening and Diagnosis



<sup>1</sup> See Screening section in Gestational Diabetes Guidelines  
<sup>2</sup> American Diabetes Association, Carpenter and Coustan

# Gestational Diabetes Postpartum Follow-up

Women with GDM have an approximate 50% risk for developing type 2 diabetes within the next 5–10 years and 80% risk if they have impaired fasting glucose or impaired glucose tolerance postpartum. Therefore it is crucial they return to their provider to receive the appropriate postpartum counseling, testing, and follow-up after a GDM pregnancy.



## Postpartum education for all women with prior GDM:

- Encourage lifestyle modifications to improve insulin resistance, maintain normal body weight, make healthy food choices, increase physical activity.
- Recommend breastfeeding as it may decrease maternal progression to type 2 diabetes following a GDM pregnancy.
- Educate on effective contraception and the need for preconception counseling and evaluation **before** future pregnancies.
- Emphasize importance of a healthy lifestyle in children born to women with GDM.
  - Monitor for development of obesity and/or glucose intolerance.
  - Encourage daily physical activity.
  - Teach and model healthy eating habits.