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# تازه های غربالگری دیابت در بارداری



# Classification of Diabetes complicating Pregnancy



Class	Onset	Fasting plasma Glucose	2-hour postprandial Glucose
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A1	Gestational	<105 mg/dl	<120mg/dl
A2	Gestational	>105 mg/dl	>120 mg/dl

Class	Age of onset(yr)	Duration(yr)	Vascular Disease
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B	Over20	<10	None
C	10 to 19	10 to 19	None
D	Before 10	>20	Bening retinopathy
F	Any	Any	Nephropathy
R	Any	Any	Proliferative retinopathy
H	Any	Any	Heart



# Recommended Screening Strategy

## Low Risk

- \*Member of an ethnic group with a low prevalence of gestational diabetes
- \*No known diabetes in first – degree relatives
- \*Age less than 25 years
- \*Weight normal before pregnancy
- \*No history of abnormal glucose metabolism
- \*No history of poor obstetrical outcome

**Blood glucose testing not routinely required**



## Average Risk

Average risk- women of Hispanic , African ,  
Native American , South or East Asian origins

Perform blood glucose testing at 24-28 weeks



## High Risk

**Women with marked obesity**

**Strong family history of type 2 diabetes**

**Prior gestational diabetes**

**Glucosuria**

**Hypertension**

**TG  $\geq$  250**

**Immobility**

**PCOS**

**Poor OB History**



**Perform blood glucose testing as soon as possible**

- ◆ **If gestational diabetes is not diagnosed:**
- ◆ **Blood glucose testing** should be repeated at 24-28 weeks
- ◆ **Or at any time** a patient has symptoms
- ◆ **Or signs suggestive of hyperglycemia**





# Two Step Strategy

1- GCT 50g 1h  $\leq 140$  Normal  
 $\geq 140 - 199$  GTT  
 $\geq 200$  BS Control

2- GTT 100g 3h

## One Step Strategy

GTT 100g 3h



# Fifth International workshop conference on GDM Using the 100-g Oral Glucose Tolerance Test

## National Diabetes plasma Data Group

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Status	mg/dl
<b>Fasting</b>	<b>95</b>
<b>1hr</b>	<b>180</b>
<b>2hr</b>	<b>155</b>
<b>3hr</b>	<b>140</b>



# National protocol

- FBS  $\leq$  92 Normal
- FBS : 92-99 Impaired Glucose Tolorans
- FBS ; 100-125 GDM
- FBS  $\geq$  126 Overt Diabetes



# Fetal effects :

## ✦ Abortion

- ✦ Preterm delivery
- ✦ Malformation
- ✦ Unexplained fetal demise
- ✦ Hydramnios



Diabetes

# Congenital Malformation in infants of women with Overt Diabetes

## Anomaly

**Caudal regression**

**Situs inversus**

**central nervous system defect**

**Spina bifida**

**hydrocephaly**

**Anecephaly**

**Heart anomalies**

**Anal/rectal atresia**

**Renal anomalies**

**Agensis**

**Cystic kidney**

**Duplex ureter**



# Neonatal effects

- ♠ **Respiratory Distress**
- ♠ **Hypoglycemia**
- ♠ **Hypocalcemia**
- ♠ **Hyperbilirubinemia**
- ♠ **Cardiac Hypertrophy**
- ♠ **Long-Term Cognitive Development**
- ♠ **Inheritance of Diabetes**
- ♠ **Altered Fetal Growth**



# Maternal Effects

- ❧ **Diabetic Nephropathy**
- ❧ **Diabetic Retinopathy**
- ❧ **Diabetic Neuropathy**
- ❧ **Preeclampsia**
- ❧ **Ketoacidosis**
- ❧ **Infections**



# MANAGEMENT





# Patient – Monitored Capillary Blood Glucose Goals During Pregnancy in Diabetic Women

Specimen	Blood Glucose (mg/dl)
Fasting	$\leq 95$
Premeal	$\leq 100$
Postprandial 1 hr	$\leq 140$
Postprandial 2 hr	$\leq 120$
0200 – 0600 hr	$\geq 60$
mean	100
Hb A1c	$\leq 6$



# Fifth International workshop conference on GDM postpartum Assessments

<b>Time</b>	<b>Test</b>
<b>Postdelivery (1-3d)</b>	<b>Fasting or random plasma glucose</b>
<b>Early postpartum(6-12wks)</b>	<b>75-g 2-h OGTT</b>
<b>1 yr postpartum</b>	<b>75-g 2-h OGTT</b>

<b>Annually</b>	<b>Fasting plasma glucose</b>
<b>Tri-annually</b>	<b>75-g 2-h OGTT</b>
<b>Prepregnancy</b>	<b>75-g 2-h OGTT</b>



# Postpartum Evaluation for Glucose intolerance in women With Gestational Diabetes

Normal	Impaired fasting or impaired Glucose Tolerance	Diabetes Mellitus
Fasting < 100mg/dl	100-125mg/dl	≥ 126 mg/dl
2hr < 140mg/dl	2hr ≥ 140-199mg/dl	2hr ≥ 200 mg/dl
Hb A1c ≤ 5.7	5.7- 6.4	≥ 6.5





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