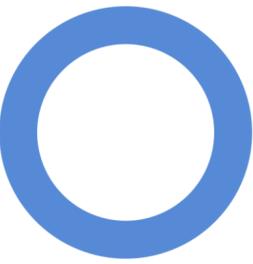




Joslin Diabetes
Asian American Diabetes Initiative

Tiffany Su
Memorial Fund



Let's Talk About...

Ep #3

“Gestational Diabetes: Prevention and Management”

November 2021

Joslin Diabetes Center Asian American Diabetes Initiative (AADI)

Ka Hei Karen Lau

Registered Dietitian



About Ms. Lau

- Certified Diabetes Care and Education Specialist
- Provides care for Asian Americans with diabetes during pregnancy
- Helps patients and the Asian American community to learn to integrate healthy and enjoyable meals into their daily meal plans
- Originally from Hong Kong, understands cultural differences in Asia and the United States
- Speaks Cantonese and Mandarin

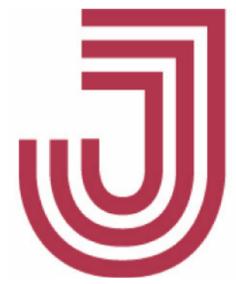


Topics

Let's talk about...

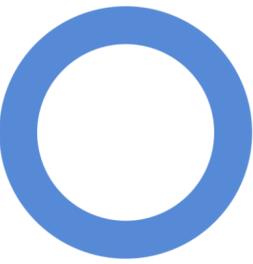
- About Gestational Diabetes
- Care During Pregnancy
- Postpartum Care
- Preconception Care





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About Gestational Diabetes

Gestational Diabetes (GDM)

What is gestational diabetes?

- Diabetes diagnosed in the second or third trimester of pregnancy that was not clearly overt diabetes prior to gestation
- 50% of women develop T2DM in the following 7-10 years
- Children have higher risk of obesity and T2DM later in their lives

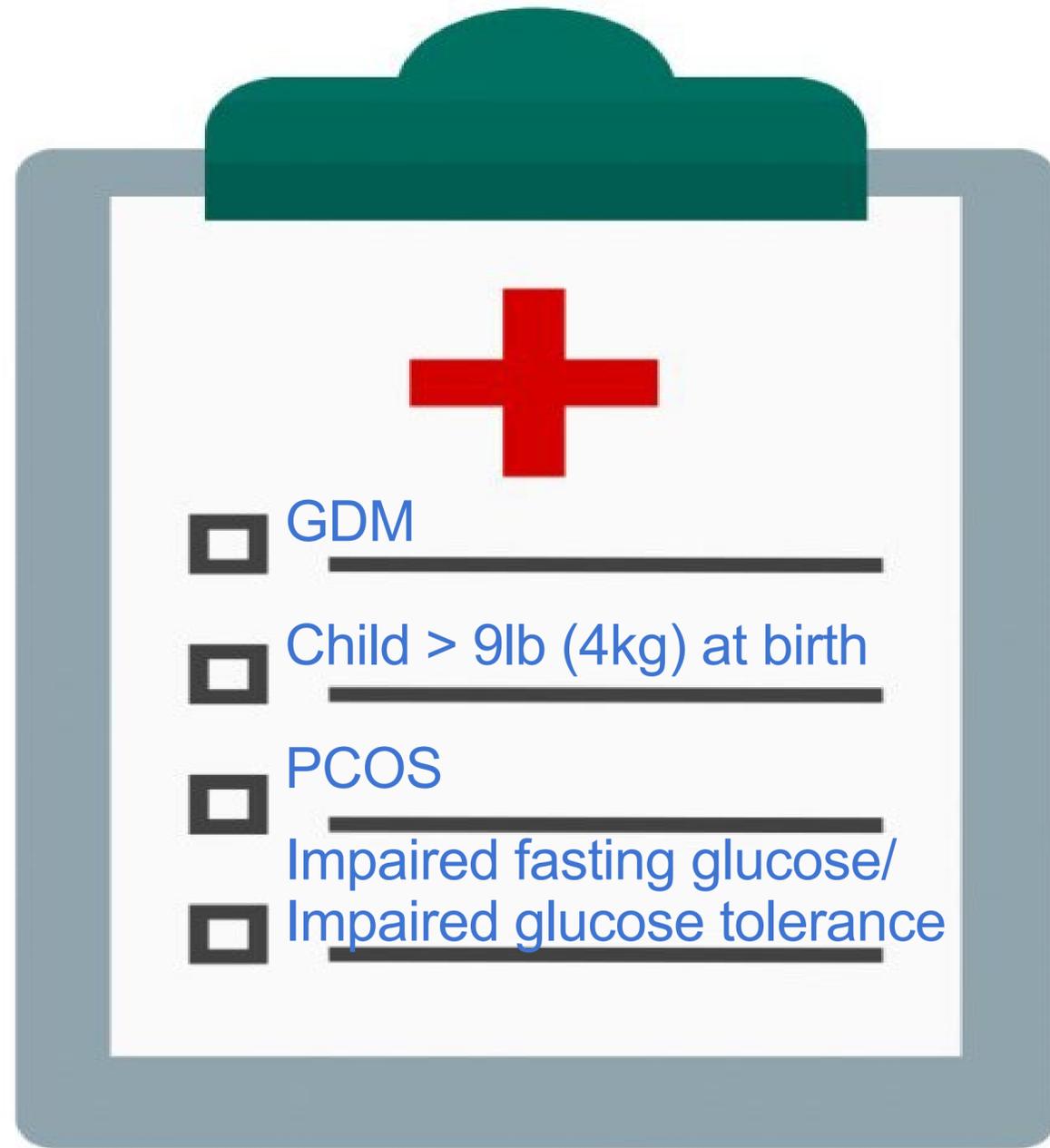


<https://news.weill.cornell.edu/news/2021/04/pregnant-women-who-receive-covid-19-mrna-vaccines-pass-antibodies-to-their-babies>

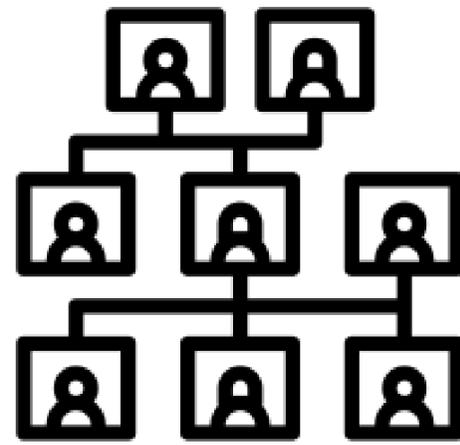


Risk Factors for GDM

Are you at risk?



- GDM _____
- Child > 9lb (4kg) at birth _____
- PCOS _____
- Impaired fasting glucose/ _____
- Impaired glucose tolerance _____



When is GDM Being Diagnosed

The tests you may need

- High risk group: First trimester
 - Fasting glucose, or
 - A1C, or
 - 2 hours 75g OGTT

	Normal	Abnormal (Treat as GDM)	Diabetes
Fasting	< 110 mg/dL	110 - 125 mg/dL	> 125 mg/dL
A1C	< 5.9%	5.9% - 6.2%	> 6.2%
2hr after OGTT	-	-	≥ 200 mg/dL

*OGTT = oral glucose tolerance test

- General (24 – 28 weeks pregnant)
 - One-step 75g OGTT

	GDM if have any of the following value
Fasting	≥ 92 mg/dL
@ 1 hr	≥ 180 mg/dL
@ 2 hr	≥ 153 mg/dL

- Two-step 50g OGTT + 100g OGTT

	First step (50g) Abnormal Results (proceed to step 2)	GDM if ≥2 of the following values
Fasting	-	≥ 95 mg/dL
@ 1 hr	≥ 140 mg/dL	≥ 180 mg/dL
@ 2 hr	-	≥ 155 mg/dL
@ 3 hr	-	≥ 140 mg/dL

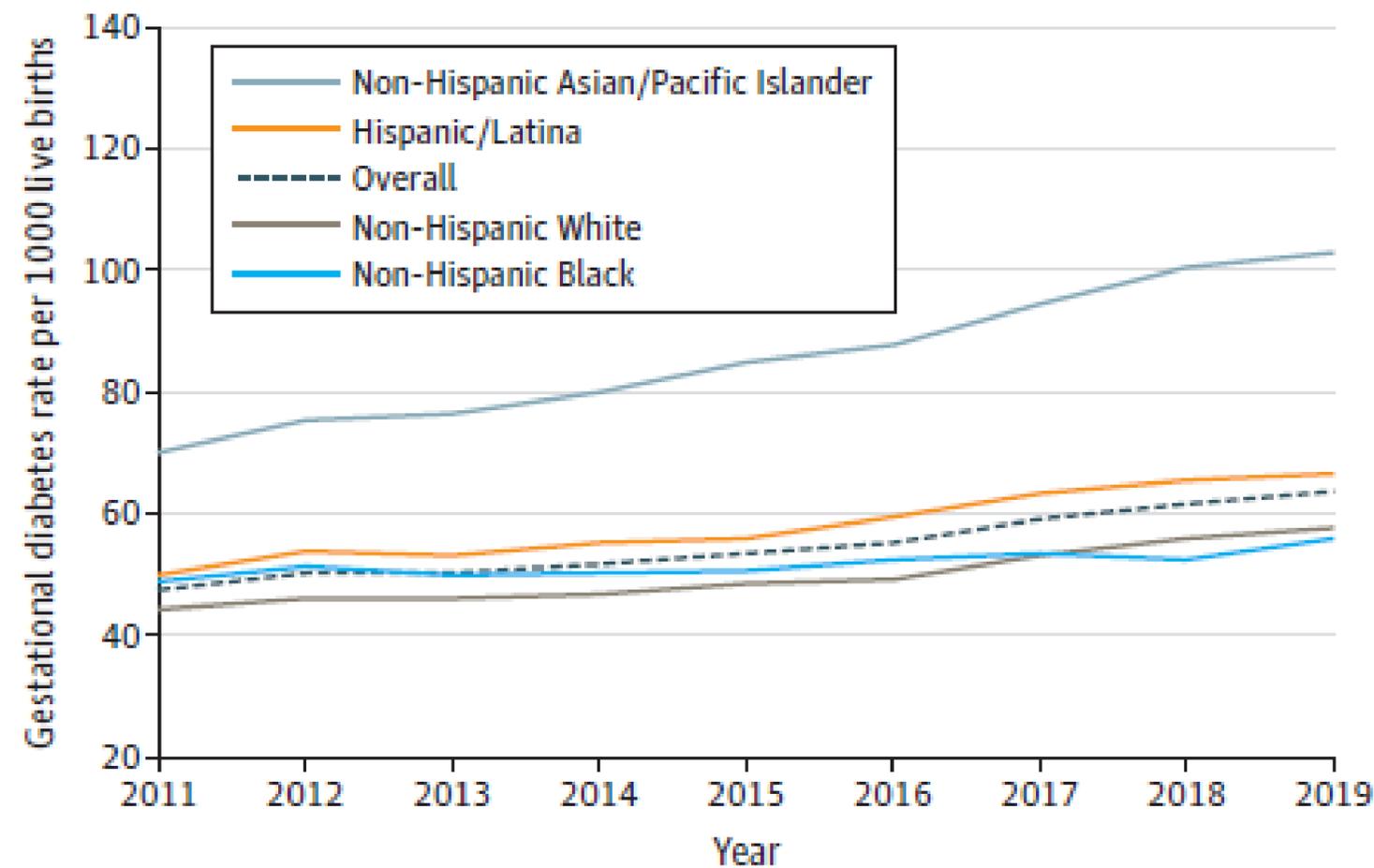


Latest Statistics of GDM

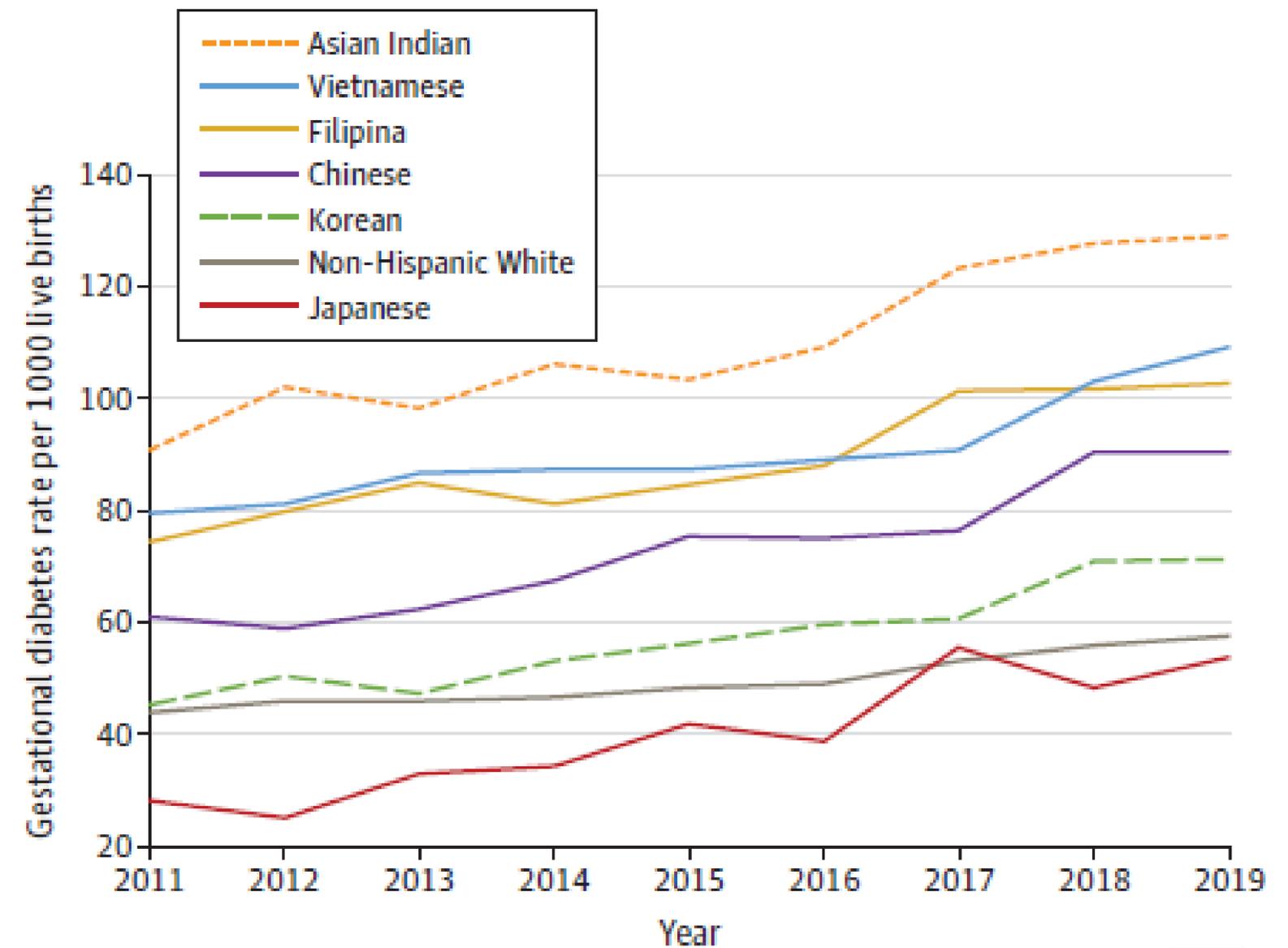
How many are at risk?

Figure 2. Age-Standardized Rates of Gestational Diabetes in Race and Ethnic Subgroups in Individuals Aged 15 to 44 Years With Singleton First Live Births in the US from 2011 to 2019

A Overall and by race and ethnicity



B Non-Hispanic Asian subgroups





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Care During Pregnancy

Treatment Goals for GDM at Joslin

What glucose should you aim for

- Blood glucose

	Plasma glucose Hadlock AC <75th percentile	Plasma glucose Hadlock ≥75th percentile
Fasting and pre-meal glucose	60-95 mg/dL	60-79 mg/dL
1 hour post meal or peak postprandial	100-129 mg/dL	90-109 mg/dL

American Diabetes Association (ADA)
70-95 mg/dL
110 – 140 mg/dL
100 – 120 mg/dL <2-hour postprandial>

- Urine ketones: Negative



Goals for Healthy Eating During Pregnancy

Why eating healthy?

- Provide adequate nutrients for a healthy pregnancy
- Healthy weight gain
- Minimize blood glucose fluctuations
- Avoid having ketones
- Discuss food safety, food intolerance/allergy



Weight Gain Goal & Caloric Needs

What you need for healthy weight gain

BMI Range*	Energy (kcal/kg)*		Total Weight Gain Range		Rate of weight gain (2 nd & 3 rd Trimester)
	Single	Multiple	Single	Multiple	
Underweight (<18.5 kg/m ²)	36 – 40	42 – 50	28 – 40 lb (12.4 – 18 kg)	**	1.0 (1.0 – 1.3) lb/wk 0.45 (0.45 – 0.59) kg/wk
Normal (18.5-22.9 kg/m ²)	30	40 – 45	25 – 35 lb (11.5 – 16 kg)	37 – 54 lb (17 – 24.5 kg)	1.0 (0.8 – 1.0) lb/wk 0.45 (0.36 – 0.45) kg/wk
Overweight (23-26.9 kg/m ²)	24	30 – 35	15 – 25 lb (7 – 11.5 kg)	31 – 50 lb (14 – 23 kg)	0.6 (0.5 – 0.7) lb/wk 0.27 (0.23 – 0.32) kg/wk
Obese (≥ 27 kg/m ²)	**	**	11 – 20 lb (5 – 9 kg)	25 – 42 lb (11 – 19 kg)	0.5 (0.4 – 0.6) lb/wk 0.23 (0.18 – 0.27) kg/wk

*Using pre-pregnancy weight

**Insufficient evidence

Energy Calculation (For Singleton)

How much extra do you need to eat?

• First trimester: + 0 kcal/d

• Second trimester: + 340 kcal/d



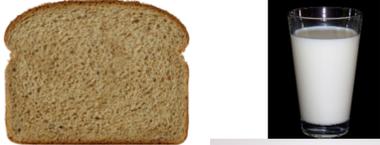
• Third trimester: + 452 kcal/d



Carbohydrate Distribution

Minimum Carb = 175 g

How does the meal plan look like?

Meals	Carbohydrates	Samples
Breakfast	30 g	
Snack	15-20 g	
Lunch	45 g	
Snack	15-20 g	
Dinner	45 g	
Snack	15-20 g	



Carbohydrate Foods

Where are carb?

Plant foods

- Grains & Grain Products
- Starchy Vegetables
- Legumes



Fruits & Fruit Juices



Dairy

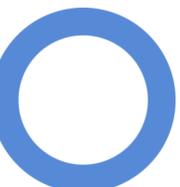
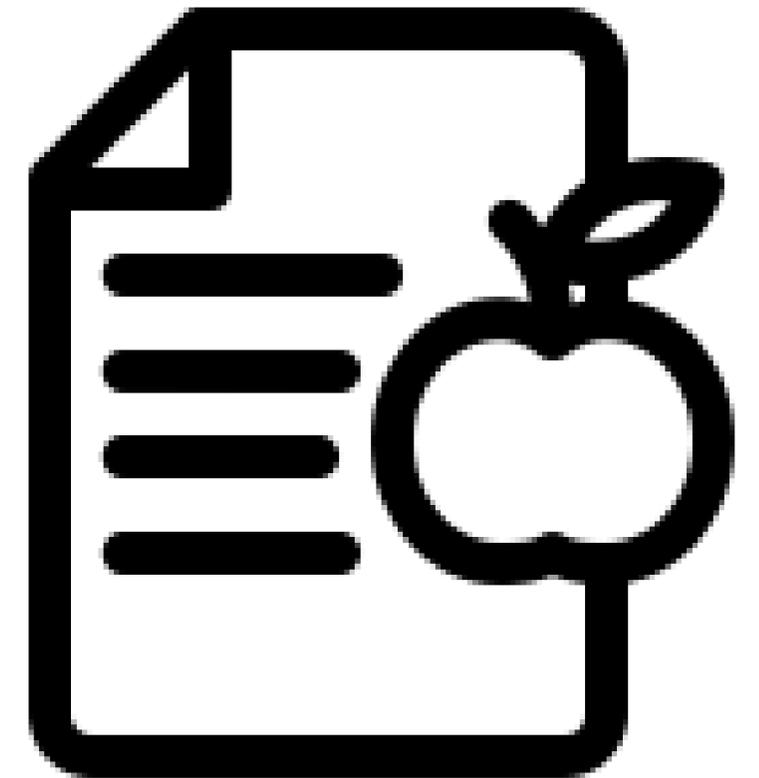
- Milk
- Yogurt



Other Meal Planning Tips

More than just carb

- Choose whole grains
- Increase non-starchy vegetable intake
- For meals, aim for 2:1:1 of vegetables: carb: protein
- Pair each meal/snack with some protein/fat/vegetables
- Limit “liquid carb”
- Experiment having foods at different amount or time of the day
- Continue with other general pregnancy nutrients and food safety practice



Applying the Meal Planning Tips

How does the meal plan look like?

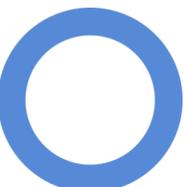
Meals	Carbohydrates	Samples
Breakfast	30 g	
Snack	15-20 g	
Lunch	45 g	
Snack	15-20 g	
Dinner	45 g	
Snack	15-20 g	



Physical Activity Recommendations

More than just food

- Consult the doctor if there is any limit to physical activities
- Moderate activity of 150 min/week; 30 min most days each week
- Suggestion: walk for 20-30 min after a meal
- Reduce postprandial hyperglycemia
- Reduce insulin resistance
- Avoid excessive weight gain
- Measure changes in blood glucose



During COVID

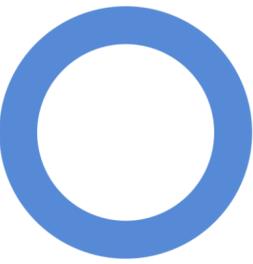
Protecting you from COVID





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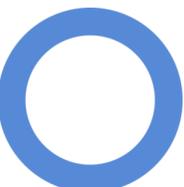


Postpartum Care

Delay/Prevent Development of T2DM

Things you can do to protect you

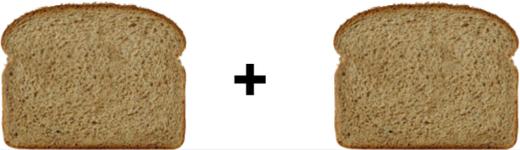
- 2-hour OGTT at 6 weeks postpartum
- Maintain healthy weight (if overweight, 5-7% weight loss)
- Stay active
- Maintain healthy eating habit
- Breastfeeding
- Balancing between traditional practice with modern day lifestyle
- Regular follow-up
- Preconception consultation before next pregnancy



Nutrition During Breastfeeding

How much nutrients do you need

- Caloric Needs
 - First 6 months: +330 kcal/d
 - Second 6 months : +400kcal/d
- Carbohydrates
 - Minimum 210 g/day
- Protein
 - 1.1-1.3g/kg each day

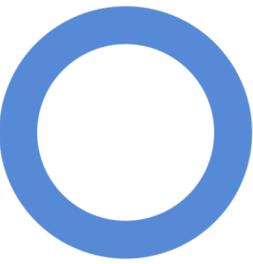
Meals	Carbohydrates	Samples
Breakfast	45 g	 +   
Snack	15-20 g	 
Lunch	60 g	 +    
Snack	15-20 g	 
Dinner	60 g	 +    
Snack	15-20 g	 





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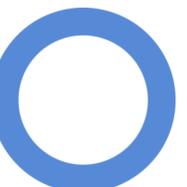


Preconception Care

Preconception Care after GDM

Things you can do before pregnancy

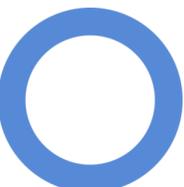
- Early discussion with healthcare provider
- Maintain near-normal blood glucose
- Staying active
- Healthy eating
- Stop smoking and drinking
- Multivitamin w/ 400 mcg folic acid
- Weight loss of 5-10% if have overweight/obesity



Preconception Care For Men

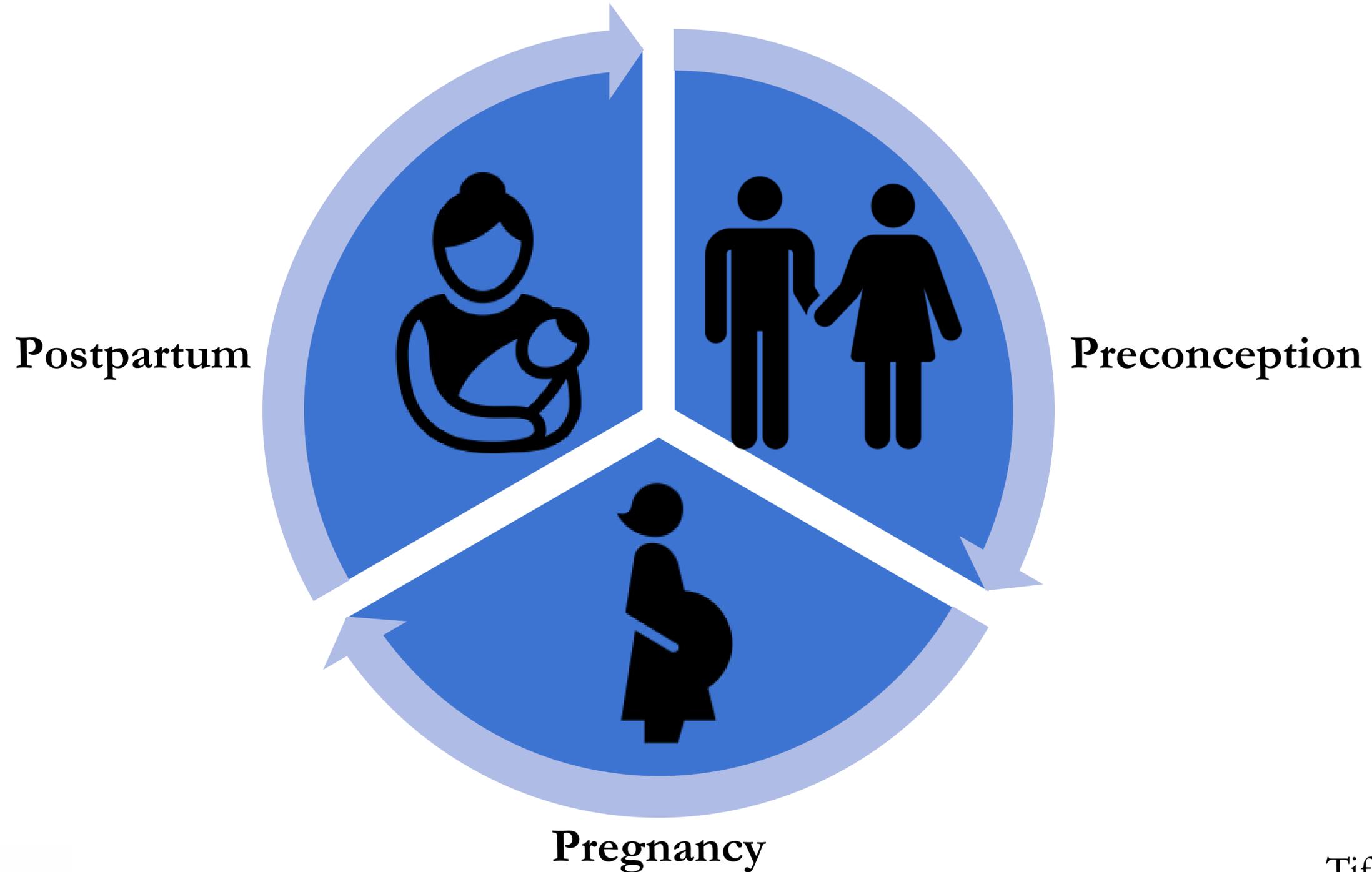
It is not just about women's health

- Stop smoking
- Avoid excessive drinking
- Avoid recreational drugs, certain medications and exposure to toxic substances
- Manage blood glucose, blood pressure
- Maintain healthy weight
- Staying active
- Healthy eating



Healthy Baby Starts Before Pregnancy!

The full circle



We are here!

Available help & resources

More on mental wellness, resources, numbers to call

- Check “free resources” - “whatever the category” on our multilingual website AADI.Joslin.org

Questions? Suggestions for future topics?

- Email us at aadi@joslin.harvard.edu

New patient request at Joslin’s Asian Clinic

- Call Julia Li at [617-309-3444](tel:617-309-3444) *leave a message for appointment information

