



**Joslin Diabetes Center**  
*Asian American Diabetes Initiative*

## *Why “Screen at 23”?*

- **Every 1 in 2 Asian American** adults has diabetes or prediabetes.
- **More than half of Asian Americans did not know** they have type 2 diabetes or prediabetes.
- **Asian Americans can develop diabetes at a lower Body Mass Index** (BMI) than the general population.
- Early detection is a key to treatment and possibly prevention of diabetes. **We encourage Asian Americans to be screened at the BMI of 23.**

## *What can YOU do?*

1. Check your BMI today (see Asian BMI chart)
2. Answer 9 questions (Yes or No) on diabetes risk checklist
3. Bring the results and ask your doctor to check your A1C\*
4. Tell your friends and family about Screen at 23!

\*A1C is a test that reflects a three month average of your blood glucose levels.

For More Information About *Screen at 23*

Check Out [screenat23.org/](http://screenat23.org/)

Or Contact Joslin Diabetes Center; Asian American Diabetes Initiative (AADI)

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# BMI for Asian Adults in the United States

Body mass index (BMI) is a ratio of your weight to height. It estimates the total body fat and assesses the risks for diseases related to increased body fat. The risk of developing many diseases increases with a higher BMI. Asians and Asian Americans may have increased health risks at a lower BMI. Therefore, BMI cutoff points on this chart are lower than those defined by National Institutes of Health (NIH).

## WEIGHT

HEIGHT	lb	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200	205	210	215	220
	kg	40.9	43.2	45.5	47.7	50.0	52.3	54.5	56.8	59.1	61.4	63.6	65.9	68.2	70.5	72.7	75.0	77.3	79.5	81.8	84.1	86.4	88.6	90.9	93.2	95.5	97.7	100
4'10" (147cm)	18.8	19.9	20.9	22.0	23.0	24.1	25.1	26.2	27.2	28.3	29.3	30.4	31.4	32.5	33.5	34.6	35.6	36.7	37.7	38.7	39.8	40.8	41.9	42.9	44.0	45.0	46.1	
4'11" (150cm)	18.2	19.2	20.2	21.3	22.3	23.3	24.3	25.3	26.3	27.3	28.3	29.3	30.4	31.4	32.4	33.4	34.4	35.4	36.4	37.4	38.5	39.5	40.5	41.5	42.5	43.5	44.5	
5'0" (152cm)	17.6	18.6	19.6	20.5	21.5	22.5	23.5	24.5	25.4	26.4	27.4	28.4	29.4	30.3	31.3	32.3	33.3	34.2	35.2	36.2	37.2	38.2	39.1	40.1	41.1	42.1	43.1	
5'1" (155cm)	17.0	18.0	18.9	19.9	20.8	21.8	22.7	23.7	24.6	25.6	26.5	27.5	28.4	29.3	30.3	31.2	32.2	33.1	34.1	35.0	36.0	36.9	37.9	38.8	39.8	40.7	41.7	
5'2" (157cm)	16.5	17.4	18.3	19.2	20.2	21.1	22.0	22.9	23.8	24.7	25.7	26.6	27.5	28.4	29.3	30.2	31.2	32.1	33.0	33.9	34.8	35.7	36.7	37.6	38.5	39.4	40.3	
5'3" (160cm)	16.0	16.9	17.8	18.6	19.5	20.4	21.3	22.2	23.1	24.0	24.9	25.7	26.6	27.5	28.4	29.3	30.2	31.1	32.0	32.8	33.7	34.6	35.5	36.4	37.3	38.2	39.1	
5'4" (163cm)	15.5	16.3	17.2	18.1	18.9	19.8	20.6	21.5	22.4	23.2	24.1	24.9	25.8	26.7	27.5	28.4	29.2	30.1	31.0	31.8	32.7	33.5	34.4	35.3	36.1	37.0	37.8	
5'5" (165cm)	15.0	15.8	16.7	17.5	18.3	19.2	20.0	20.8	21.7	22.5	23.3	24.2	25.0	25.8	26.7	27.5	28.3	29.2	30.0	30.8	31.7	32.5	33.4	34.2	35.0	35.9	36.7	
5'6" (168cm)	14.6	15.4	16.2	17.0	17.8	18.6	19.4	20.2	21.0	21.8	22.6	23.5	24.3	25.1	25.9	26.7	27.5	28.3	29.1	29.9	30.7	31.5	32.3	33.2	34.0	34.8	35.6	
5'7" (170cm)	14.1	14.9	15.7	16.5	17.3	18.0	18.8	19.6	20.4	21.2	22.0	22.8	23.5	24.3	25.1	25.9	26.7	27.5	28.3	29.0	29.8	30.6	31.4	32.2	33.0	33.7	34.5	
5'8" (173cm)	13.7	14.5	15.2	16.0	16.8	17.5	18.3	19.0	19.8	20.6	21.3	22.1	22.9	23.6	24.4	25.1	25.9	26.7	27.4	28.2	28.9	29.7	30.5	31.2	32.0	32.8	33.5	
5'9" (175cm)	13.3	14.1	14.8	15.5	16.3	17.0	17.8	18.5	19.2	20.0	20.7	21.5	22.2	22.9	23.7	24.4	25.2	25.9	26.6	27.4	28.1	28.9	29.6	30.3	31.1	31.8	32.6	
5'10" (178cm)	12.9	13.7	14.4	15.1	15.8	16.5	17.3	18.0	18.7	19.4	20.1	20.8	21.6	22.3	23.0	23.7	24.4	25.2	25.9	26.6	27.3	28.0	28.8	29.5	30.2	30.9	31.6	
5'11" (180cm)	12.6	13.3	14.0	14.7	15.4	16.1	16.8	17.5	18.2	18.9	19.6	20.3	21.0	21.7	22.4	23.1	23.8	24.5	25.2	25.9	26.6	27.3	28.0	28.7	29.4	30.0	30.7	
6'0" (183cm)	12.2	12.9	13.6	14.3	14.9	15.6	16.3	17.0	17.7	18.3	19.0	19.7	20.4	21.1	21.7	22.4	23.1	23.8	24.5	25.1	25.8	26.5	27.2	27.9	28.5	29.2	29.9	
6'1" (185cm)	11.9	12.6	13.2	13.9	14.5	15.2	15.9	16.5	17.2	17.8	18.5	19.2	19.8	20.5	21.2	21.8	22.5	23.1	23.8	24.5	25.1	25.8	26.4	27.1	27.8	28.4	29.1	
6'2" (188cm)	11.6	12.2	12.9	13.5	14.2	14.8	15.4	16.1	16.7	17.4	18.0	18.7	19.3	19.9	20.6	21.2	21.9	22.5	23.2	23.8	24.4	25.1	25.7	26.4	27.0	27.7	28.3	

\*Note: BMI may not apply to athletes who tend to have large muscle mass, elderly people, pregnant women and children.

## BMI for Asian Adults in the United States – continued

### What is my BMI?

You can use the chart above to find out your BMI:

1. Look down the left column to find your height
2. Look across the row to find your weight
3. The number that intersects is your BMI

Date: \_\_\_\_\_

Height (inches): \_\_\_\_\_

Weight (pounds): \_\_\_\_\_

Body Mass Index (BMI): \_\_\_\_\_

### What does my BMI mean?

BMI Cutoff for Asians and Asian Americans	NIH BMI Cutoff	Comments
<18.5	<18.5	Your weight is <b>below healthy range</b> . This can put you at risk for developing many health problems. Talk to your healthcare provider about your ideal body weight.
18.5-22.9	18.5-24.9	Your weight is <b>within healthy range</b> . Continue exercising and eating healthfully.
23.0-26.9	25.0-29.9	Your weight is <b>above healthy range</b> . Your risk for developing diabetes and other chronic diseases are higher. Talk to your healthcare provider about your ideal body weight and how to make healthy lifestyle changes.
≥27.0	≥30.0	Your weight is <b>further above healthy range</b> . It further increases your risk for developing many chronic diseases such as heart disease and diabetes, and decreases overall quality of life. Talk to your healthcare provider about your ideal body weight and how to make healthy lifestyle changes.



## *Are You at Risk for Type 2 Diabetes?*

Type 2 diabetes is the most common form of diabetes. Being an Asian American, having a family history of diabetes, being overweight and inactive are some of the risk factors. The following Diabetes Risk Screening Test will help you to find out if you are at a higher risk of developing type 2 diabetes.

### **Instructions:**

1. Answer each of the 9 questions in the Diabetes Risk Screening Test by selecting the answers that apply to you.
2. Add up the points that are associated with each answer and find out the total score.
3. Find out your risk level of developing type 2 diabetes on the next page.

### **Diabetes Risk Screening Test for Adults in the United States \***

1. Is your BMI above healthy range ( $\geq 23$ for Asians or $\geq 25$ for others)?	<b>Yes</b> (1 point)	<b>No</b> (0 point)
2. Do you have a parent, brother or sister with diabetes?	<b>Yes</b> (1 point)	<b>No</b> (0 point)
3. Are you an Asian or a Pacific Islander?	<b>Yes</b> (1 point)	<b>No</b> (0 point)
4. Did you have gestational diabetes when you were pregnant or you gave birth to at least one baby weighing 9 pounds (4 kg) or more?	<b>Yes</b> (1 point)	<b>No</b> (0 point)
5. Is your blood pressure not normal: <ul style="list-style-type: none"> <li>• Blood pressure of 130/80 or higher, or</li> <li>• You have been told that you have high blood pressure?</li> </ul>	<b>Yes</b> (1 point)	<b>No</b> (0 point)
6. Are your cholesterol (lipid) levels not normal: <ul style="list-style-type: none"> <li>• HDL cholesterol ("good" cholesterol) is less than 35 mg/dL, or</li> <li>• Triglyceride level is 250 mg/dL or higher?</li> </ul>	<b>Yes</b> (1 point)	<b>No</b> (0 point)
7. Do you exercise fewer than 3 times a week?	<b>Yes</b> (5 points)	<b>No</b> (0 point)
8. Are you between 45-64 years old?	<b>Yes</b> (5 points)	<b>No</b> (0 point)
9. Are you 65 years or older?	<b>Yes</b> (9 points)	<b>No</b> (0 point)
<b>My total score is:</b>		

\*This Diabetes Risk Screening Test is adapted from [www.ndep.nih.gov](http://www.ndep.nih.gov) and [www.diabetes.org](http://www.diabetes.org). This version has been modified for Asian Americans and Pacific Islanders only.

## *Are You at Risk for Type 2 Diabetes? – continued*

### Interpretation of the Diabetes Risk Screening Test Scores

#### **If you scored 2 or below:**

You are at **low** risk for developing diabetes.

Continue to keep up with the good work!

#### **If you scored between 3 – 9:**

You are at **moderate** risk for developing diabetes.

You can continue to lower your risk for developing diabetes by: maintaining a healthy weight, choose low fat and whole grain foods.

Consult a Registered Dietitian for an individualized meal plan and a weight loss plan if you need to lose weight. Remember to follow up with your primary care provider yearly to check your blood glucose level and other risk factors for diabetes.

#### **If you scored 10 or higher:**

You are at **high** risk for developing diabetes.

Only your doctor can verify if you have diabetes.

***Please consult your doctor as soon as possible.***

#### **The Good News:**

Type 2 diabetes is preventable and manageable. Small lifestyle changes can make a big difference to your health. Regardless of your risk level, here are a few things that you can start doing to help you live a healthier life:

- 1) If you are overweight (BMI  $\geq$  23), lose 5-10% of your weight
- 2) Each week exercise for at least 150 minutes with moderate intensity (for example, brisk walking, house cleaning)
- 3) Make healthier food choices



## *Pre-diabetes and Type 2 Diabetes Risk Factors for Asian Americans*

In the United States, over half of the adults of Asian descent have either pre-diabetes or diabetes. Pre-diabetes increases the risk of developing type 2 diabetes later in life. You can change your lifestyle and delay or prevent the development of pre-diabetes and type 2 diabetes.

### **Modifiable Factors:**

Do you have any of these 4 risk factors? By making lifestyle changes, you may lower your risk of diabetes.

1. Weight and waist circumference above healthy range  
Your risk is increased if you have:
  - a. BMI above 23
  - b. Waist circumference above 90 cm (35.5 in) for male, or above 80 cm (31.5 in) for female
2. Sedentary lifestyle  
If you do less than 150 min of moderate intensity exercise (e.g. brisk walking) per week, the risks are higher.
3. High blood pressure  
Your risk is higher if you:
  - a. Have been told by your doctor that you have hypertension (high blood pressure)
  - b. Have systolic blood pressure (upper number) above 130 mmHg or diastolic blood pressure (lower number) above 80 mmHg.
4. Abnormal blood lipid profile (your cholesterol results)
  - a. Triglyceride level above 250 mg/dL
  - b. HDL level ("good" cholesterol) below 35 mg/dL

### **Non-modifiable Factors:**

1. Age- 45 years of age or above  
The risk for pre-diabetes and type 2 diabetes increases with age. If you are 65 years or older, the risk is further increased.
2. Immediate family with history of diabetes  
If your parents or your siblings have diabetes, your risk is higher than those without a family history of diabetes.
3. Asian descent  
Ethnic minorities, such as those of Asian descent, Native Hawaiians or Pacific Islanders are at a higher risk of developing pre-diabetes and type 2 diabetes.
4. History of gestational diabetes  
If you have a history of gestational diabetes (diabetes during pregnancy), or if you have given birth to a baby weighing 9 pounds (4 kg), increases the risk.



## Diagnosing Type 2 Diabetes in Your Asian American Patients

### Did you know:<sup>1</sup>

- Asian Americans have a high risk of type 2 diabetes similar to that of other racial or ethnic minority groups, even though they have a lower Body Mass Index (BMI)?
- The World Health Organization (WHO) recognized that a BMI greater than 22 kg/m<sup>2</sup> may signify overweight in Asians, versus 25 kg/m<sup>2</sup> in other racial groups?
- Asian Americans are a heterogeneous group and some, such as South Asians and Filipinos, are at even higher risk?
- Standard tests, such as HbA1c and fasting blood glucose (FBG) may not be sensitive enough to identify diabetes in Asian Americans?

### Steps to follow with your Asian American patients:

1. **Determine whether any other major risk factors are present**, including -- first degree relative with diabetes, country of origin, hypertension, dyslipidemia, cardiovascular disease, past history of elevated blood glucose, and, in women, a history of GDM, baby with birth weight more than 9 pounds, or polycystic ovarian disease.
2. **Test for diabetes if they have one or more of the risk factors at BMI 23.**
3. **Think of doing a 2-hour oral glucose tolerance test**, as in Asian Americans, HbA1c and or FBG do not satisfactorily exclude diabetes.

For more information, contact Dr. Ho Luong Tran, President & CEO: [htran@ncapip.org](mailto:htran@ncapip.org) with any comments or questions or visit the AANHPI Diabetes Coalition <http://www.ncapip.org/takeaction/diabetes/>

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<sup>1</sup> For a review of the evidence, go to Hsu, et al., Pathophysiologic Differences Among Asians, Native Hawaiians, and Other Pacific Islanders and Treatment Implications, *Diabetes Care*, May 2012.

