

Prevalence of Diabetes Among Asian Americans and Pacific Islanders

Presented by:

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What is diabetes?

A disease in which the body either fails to produce insulin or the insulin that is produced is not utilized effectively and therefore, unable to adequately convert food into energy

Types of Diabetes

Type 1 Diabetes – also called juvenile onset or insulin dependent

Type 2 Diabetes – adult onset or non-insulin dependent

Gestational Diabetes – develops during pregnancy

Risk Factors

- Family history of diabetes
- 45 years old or over
- Members of certain ethnic groups including Asian Americans and Pacific Islanders, African Americans, Hispanic Americans and Native Americans
- Had diabetes while pregnant
- Have high blood pressure
- Overweight or obese
- Have abnormal cholesterol levels (lipid levels)
- Have previously been identified as having IFG (impaired fasting glucose) or IGT impaired glucose tolerance

Asian Americans and Pacific Islanders are at a Higher Risk for Diabetes

- Despite having a lower Body Mass Index (BMI), Asian Americans are more likely to have diabetes than Caucasians
- Health challenge among Asian Americans and API's who have immigrated to the US, affecting about 20% of Asian Americans
- 32% of Asian Americans have pre-diabetes



Why are Asians at Higher Risk?

- Genetics and environmental factors
- Industrialization of Asian countries
- Higher prevalence of risk factors such as obesity, physical inactivity, educational attainment or a combination of these factors

Diabetes-Related Facts

- According to the National Health and Nutrition Examination Survey (NHANES 2011-2012)
 - 20.6 % - Asian Americans have diabetes
 - 32.2% - have pre-diabetes
 - 50.9% - are undiagnosed – higher than any other ethnic or racial group
- Diabetes is the 5th leading cause of death among Asian Americans and Pacific Islanders
- 60% of patients with diabetes worldwide are Asians
- Prevalence is 60% higher among Asian Americans than white individuals

What is Body Mass Index (BMI)?

Ratio of your weight to height

Body Mass Index for Asians

Weight (kg)	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125
Height (cm)	Underweight				Healthy Weight				Overweight				Obese				
140	23	26	28	31	33	36	38	41	43	46	48	51	54	56	59	61	64
145	21	24	26	29	31	33	36	38	40	43	45	48	50	52	55	57	59
150	20	22	24	27	29	31	33	36	38	40	42	44	47	49	51	53	56
155	19	21	23	25	27	29	31	33	35	37	40	42	44	46	48	50	52
160	18	20	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49
165	17	18	20	22	24	26	28	29	31	33	35	37	39	40	42	44	46
170	16	17	19	21	22	24	26	28	29	31	33	35	36	38	40	42	43
175	15	16	18	20	21	23	24	26	28	29	31	33	34	36	38	39	41
180	14	15	17	19	20	22	23	25	26	28	29	31	32	34	35	37	39
185	13	15	16	18	19	20	22	23	25	26	28	29	31	32	34	35	37
190	12	14	15	17	18	19	21	22	24	25	26	28	29	30	32	33	35
195	12	13	14	16	17	18	20	21	22	24	25	26	28	29	30	32	33
200	11	13	14	15	16	18	19	20	21	23	24	25	26	28	29	30	31
205	11	12	13	14	15	17	18	19	20	21	23	24	25	26	27	29	30
210	10	11	12	14	15	16	17	18	19	20	22	23	24	25	26	27	28
215	10	11	12	13	14	15	16	17	18	19	21	22	23	24	25	26	27

Body Mass Index (BMI) Kg/m²

Classification	BMI Caucasian	BMI Asian	Health Risk
Underweight	18.5 >	18.5 >	Low
Normal Weight	18.5-24.9	18.5-22.9	Average
Overweight	25.0 <	23.0 <	
Pre-Obese	25.0-29.9	23.0-24.9	Mildly increased
Obese Class I	30.0 <	25.0 <	Moderate High Very High
Class II	30.0-34.9	25.0-29.9	
Class III	35.0-39.0 40.0 <	30.0 <	

The BMI cut-offs used in the above chart are from the following source:

BMI Calculator. Asian American Diabetes Initiative Web site. <http://aadi.joslin.org/content/bmi-calculator>.

Target Waist Circumference for Asian Americans

Men – equals or less than 90 cm (35.5 in)

Women – equals or less than 80 cm (31.5 in)



Preventing Complications

ABC of Diabetes

- **A1C (blood glucose)**- less than 7%
check at least twice a year
- **Blood Pressure** - less than 130/80 mmHg
check every doctor's visit
- **Cholesterol (LDL)** – less than 100 mg/dl – check once a year

Can Type 2 Diabetes be Prevented?



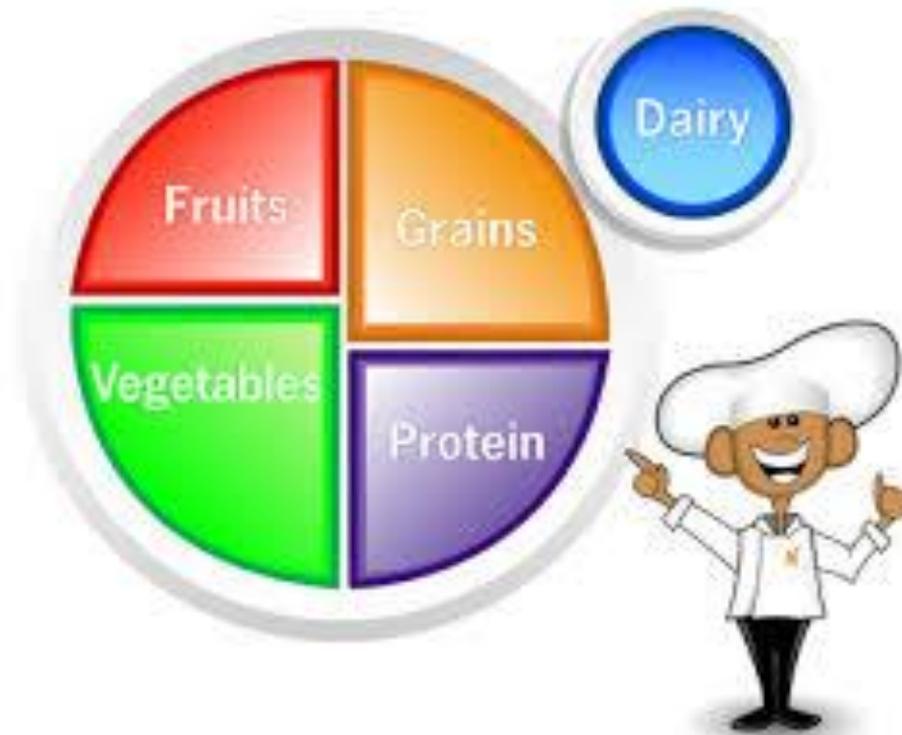
Diabetes Prevention Program

People who participated in the DPP (Diabetes Prevention Program) study:

- Lost 5-7% of their body weight (~ 10-14 lbs. in a person who weighs 200 lbs.)
- Were physically active 30 minutes a day for 5 days a week. Most participants chose brisk walking.
- Made healthier food choice and limited calories and fat in their diets.

Treatment

Nutrition – a healthy eating plan



Treatment

Physical Activity



Treatment

Medication



Challenges and Barriers in Diabetes Management Among Asian Americans and Pacific Islanders

- Language
- Cultural attitudes and beliefs
- Diet
- Shortage of resources
- Support system

Recommendations

- Collaboration with community members, academia, government entities
- Using technology (i.e. DVD, web-based, mobile apps, etc.)
- Increase access to culturally appropriate diabetes education and management resources
- Allocating funds for community-based participatory research and programs focusing on obesity prevention, esp. during early childhood
- Modify the existing health system that allow opportunities for culturally appropriate programs
- Implement measures to prevent digital and technologic disparities so patients can easily access diabetes-related information
- Reduce stigma associated with mental illness, such as depression which is prevalent among patients with diabetes
- Cultivate the next generation to be culturally competent healthcare professionals

Resource Materials

- Resources in Asian and Native Hawaiian and Pacific Islander languages are available at:

[http://nccd.cdc.gov/DDT DPR](http://nccd.cdc.gov/DDT_DPR)