

Body Mass Index and California American Indian/Alaska Native Adults Aged 20 Years Old and Older

A Health Data Brief by the California Tribal Epidemiology Center

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What is BMI?

Body Mass Index (BMI) is a measure of an adult's weight to height. Although it is not a direct measure of body fat, BMI weight classification is sometimes used to identify adults who are overweight or obese and/or those who might have excess body fat. Excess body fat can be associated with chronic health issues, such as Type 2 Diabetes, sleep apnea, heart disease, bone and joint problems, and some cancers.¹

How many California American Indian/Alaska Native Adults have a BMI weight classification of overweight or obese? What do data sources report about BMI weight classification in relation to weight perception?

In a 2012-13 survey of California American Indian/Alaska Native (AIAN) adults aged 20 years old and older (n=820), over 80% had a self-reported BMI weight classification of overweight or obese.² Data from the same survey indicated that California AIAN adult weight perceptions did not always align with self-reported BMI weight classifications. For example, among California AIAN adults who perceived themselves to be about the right weight (n=306), 1.6% had a self-reported BMI weight classification of underweight, 24.1% had a self-reported BMI weight classification of normal weight, 35.3% had a self-reported BMI weight classification of overweight, and 39.0% had a self-reported BMI weight classification of obese.²

What can lead to overweight or obese BMI weight classifications?

- *Community influences.* The lack of sidewalks, parks, trails, affordable gyms, and safe places for recreation can lead to less physical activity, which may increase the risk for higher BMI scores and overweight or obese BMI weight classifications.³
- *Health and medications.* Several hormone problems may contribute to weight gain, such as underactive thyroid, Cushing's syndrome, and polycystic ovarian syndrome. Additionally, some medications, including corticosteroids, antidepressants, and seizure medicines can contribute to higher BMI scores and overweight or obese BMI weight classifications.
- *Nutrition and diet.* A person may have higher BMI scores and overweight or obese BMI weight classifications because of a diet that consists of large portion sizes and not many varieties of fruits and vegetables.

¹ What are the Health Risks of Overweight and Obesity? *National Heart, Lung, and Blood Institute* 2012. Available at: <https://www.nhlbi.nih.gov/health/health-topics/topics/obe/risks>.

² California Tribal Epidemiology Center: California Tribal Behavioral Risk Factor Community Survey Summary Report. Sacramento, CA: California Tribal Epidemiology Center. <https://crihb.org/wp-content/uploads/2016/01/CTBRFCSummaryReport.pdf>

³ Halpern P. *Obesity And American Indians/Alaska Natives.*; 2007.

How can adults aged 20 years old and older calculate their BMI score?

BMI Calculation for Adults Aged 20 Years Old and Older ⁴

Step 1: Multiply adult weight in pounds by 0.45.

Step 2: Multiply adult height in inches by 0.025.

Step 3: Multiply the answer from Step 2 by itself.

Step 4: Divide the answer from Step 1 by the answer from Step 3. This number is the adult's calculated BMI score.

Step 5: 

Now use the adult calculated BMI score from Step 4 to determine what BMI weight classification the BMI score falls into.

Adult Calculated BMI Score	BMI Weight Classification
30.0 and above	Obese
25.0 - 29.9	Overweight
18.5 - 24.9	Normal
Below 18.5	Underweight

How can California AIAN adults have healthier BMI weight classifications?

Everyone can:

- ⇒ **Drink water.** Drinking sodas or alcohol increases the risk of being overweight or obese.
- ⇒ **Reduce screen time.** When you sit down at the computer or television, your body isn't being active. Replace time spent in front of a screen with physical activity.
- ⇒ **Eat fruits and vegetables.** Decreasing or fully eliminating fast food can help improve diet quality. Instead, try to cook your own meals with lots of fresh fruits and vegetables.

Communities can:

- ⇒ **Build a community garden.** Consumption of vegetables can help protect against weight gain. Building a community garden ensures access to fresh vegetables.
- ⇒ **Create exercise groups.** Regular physical activity helps reduce body fat. Start a running or bicycling group to encourage physical fitness and mutual support.
- ⇒ **Make walkable areas.** Create footpaths or sidewalks to encourage more walking in the community.

Note: Please consult your physician or other health care professional to determine your exact BMI weight classification before starting any dietary or physical activity changes.

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