What is Obesity

- Overweight and obesity are defined as a higher weight than what is considered healthy for a given height.
  - Obesity and overweight can develop over time due to an energy imbalance: when an individual has a higher caloric intake than output.
  - Obesity is a chronic condition that is linked to health problems such as type 2 diabetes and can be caused by various factors such as eating patterns or genetic history.

Body mass index (BMI) measures body fat in relation to an individual’s height

- Among adults:
  - BMI of 25.0 to <30.0 is considered overweight
  - BMI of 30.0+ is considered obese

- Among children and teenagers:
  - BMI ≥ 95\textsuperscript{th} percentile for all children and teenagers of the same age and sex is considered obese
Demographic Risk Factors

- **Age**
  - Many people gain weight as they age and continue to gain weight until 60 – 65.
  - Children who have obesity are more likely to have obesity as adults.

- **Race/Ethnicity**
  - Non-Hispanic Black and Hispanic adults have the highest prevalence of obesity in the United States.

- **Genetics or Family History**
  - Individuals with a family history of obesity may be predisposed to gain weight.
  - Family members tend to share similar eating and physical activity habits.

Demographic Risk Factors

- **Poverty or low income**
  - Low-income and minority communities often lack access to affordable, healthy food, leading them to settle for less nutritious options.
  - Among men, obesity prevalence is lower in the lowest and highest income groups compared to the middle-income group.

- **Lower education**
  - Previous study has found that low education level is associated with obesity among individuals under the age of 30.
  - Men and women with college degrees have lower obesity prevalence than those with lower education.


Social and Behavioral Risk Factors

- **Poor nutrition or dietary habits**
  - Eating foods with too much saturated fat or added sugar can increase the risk for obesity.

- **Poor sleep**
  - Inadequate good-quality sleep can be associated with high BMI.

- **High stress levels**
  - Long- and short-term stress can affect hormones that control energy balances and hunger urges.

- **Sedentary lifestyle**
  - High amounts of TV, computer, video games, or screen time is associated with high BMI.

### Medications

- Some medications, such as antidepressants, antipsychotics, beta-blockers, and birth control can affect weight.

Intermediate Conditions

Obesity also increases the risk of other diseases and is accompanied by many complications. Some of these include:

- **Type 2 diabetes**
  - About 80% of individuals with type 2 diabetes are overweight or have obesity.

- **Hypertension**
  - Hypertension can increase the risk of heart attack or stroke.

- **Osteoarthritis**
  - Obesity can increase the risk of osteoarthritis by putting extra pressure on joints and cartilage.

Intermediate Conditions

- **Cancer**
  - Liver and kidney cancers are 2 times as likely in people with obesity compared to people without obesity.
  - Endometrial cancer is 2-4 times as likely in people with obesity compared to people without obesity.

- **Heart disease**
  - Obesity is associated with elevated blood fat and decreased good cholesterol.

- **COVID-19 outcomes**
  - Obesity increases the risk of severe illness from COVID-19.
  - Obesity may triple the risk of hospitalization due to COVID-19.

- **Pregnancy complications**
  - Pregnant women who are obese have a greater chance of developing gestational diabetes, having preeclampsia, and needing a cesarian section.

- **Additional consequences**
  - Sleep apnea (interrupted breathing while sleeping) is more common among obese individuals.
  - Obesity can lead to mental health problems like depression, shame and guilt, and social isolation.


In 2020, 31.9% of adults aged 18 or older in the United States had obesity.

In 2020, non-Hispanic Black adults had the highest percentage of obesity (41.6%) compared to other race/ethnicities in the United States.

In 2020, Asian adults had the lowest percentage of obesity and the lowest percentage of people with overweight classification.
In 2020, adults ages 45 – 54 had the highest percentage of obesity (38.1%) followed by adults ages 55 – 64 (36.3%).
In 2019, the estimated medical cost of obesity in the United States was about 173 billion in 2019 dollars.

Medical costs for adults who had obesity were almost $2,000 higher than those with a healthy weight.

In 2020, 28.5% of California adults had obesity.

In 2020, non-Latino American Indian/Alaska Native adults in California had the highest percentage of obesity (42.4%) followed by non-Latino Black adults (41.8%).
From 2011 and 2020, the percentage of adults with obesity was higher in the United States than San Diego County and California.

Between 2011 and 2019, the percentage of adults with obesity was higher in California than in San Diego County every year except 2019.
In 2020, 24.3% of San Diego County adults had obesity.

In 2020, Black adults in San Diego County had the highest percentage of obesity (53.8%).

San Diego County male adults had a higher percentage of obesity compared to female adults.
- In 2020, South Region had the highest percentage of overweight adults while East Region had the highest percentage of obese adults.
- In 2020, Central Region had the lowest percentage of overweight adults while North Central Region had the lowest percentage of obese adults.
Healthy eating and caloric intake
- The DASH Eating Plan can help provide nutritional goals as well as plan a meal that is low in saturated fat and artificial sweetener.
- Follow the Dietary Guidelines for Americans.

Get regular physical activity
- Most adults should get 150 minutes of aerobic activity a week. Children should get 60 minutes each day.

Get enough good quality sleep
- Adults ages 18 – 64 are recommended to get 7 – 9 hours of sleep per night.

Critical Pathway for Obesity

**Primary**
- Demographic Risk Factors
  - Age
  - Genetics/family history
  - Lower Education
  - Race/Ethnicity
  - Socioeconomic status

**Secondary**
- Behavioral & Social Risk Factors
  - High stress levels
  - Poor nutrition/dietary habits
  - Poor sleep
  - Sedentary lifestyle

**Tertiary**
- Intermediate Outcomes
  - Cancer
  - Heart disease
  - Hypertension
  - Mental health problems
  - Type 2 diabetes

*Social Determinants of Health*

**Characteristics of Residents, San Diego County**

Selected Elements from Obesity Pathway

- Non-modifiable risk
- Modifiable risk
- Population rate

<table>
<thead>
<tr>
<th>Condition</th>
<th>% of Population</th>
<th>Rate per 100,000 Population</th>
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<tbody>
<tr>
<td>Poverty-CDC</td>
<td>9.0%</td>
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<tr>
<td>High school or less education</td>
<td>20.3%</td>
<td>0.39</td>
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<tr>
<td>&lt;=3 servings of Fruits/day</td>
<td>60.4%</td>
<td>0.60</td>
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<tr>
<td>&gt;=1 serving of Fruits/day</td>
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<tr>
<td>Less than daily milk intake</td>
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<td>Money spent on fast food</td>
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<tr>
<td>Not met PE &amp; Activity opportunities in high school</td>
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<tr>
<td>Overweight for age 10-11</td>
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<td>Overweight BMI 25-29.9</td>
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<tr>
<td>Obese BMI ≥30</td>
<td>34.9%</td>
<td>0.35</td>
</tr>
<tr>
<td>Obese BMI ≥35</td>
<td>24.3%</td>
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</table>
For more information, including data, resources and reports from the County of San Diego’s Community Health Statistics Unit:

www.SDHealthStatistics.com

(619)692-6667