

## Extensive evidence links sugary drink consumption to increased risk of many negative health outcomes including:

### Type 2 Diabetes

Sugary drinks are the #1 source of added sugars in the American diet<sup>1</sup> and have repeatedly been linked to an increased risk of type 2 diabetes.<sup>2</sup>

For adults, consuming one to two sugary drinks a day increases the risk of diabetes by 26%.<sup>3</sup>

The risk of dying from COVID-19 is almost twice as high in people with type 2 diabetes than in those without it.<sup>4</sup>



The prevalence of diabetes in the U.S. has increased eight-fold over the last 60 years.<sup>5</sup>

Black adults (14.3%) and Latino adults (14.6%) suffer disproportionately from diabetes in California, with more than twice the prevalence than among non-Hispanic white adults (6.1%).<sup>6</sup>

California spends over \$27 billion annually on direct medical costs of diabetes.<sup>7</sup>

People with diabetes have more than double the medical expenses of those who do not have diabetes.<sup>8</sup>

### Heart Disease

Consuming sugary drinks significantly increases the risk of cardiovascular disease (CVD) and CVD mortality, and each additional daily serving adds to the risk.<sup>9</sup>

Those with the highest levels of added sugars in their diet are twice as likely to die from heart disease as those with low sugar intake.<sup>10</sup>

Children who consume excessive added sugars have a higher risk of heart disease in adulthood.<sup>11</sup>



Heart disease is the number one killer in California.<sup>12</sup> Over 60,000 people in California died of heart disease in 2017.<sup>13</sup>

Heart disease mortality rates are significantly higher for Black adults than for white adults in California.<sup>14</sup>

Annual health care costs for heart disease in California have been estimated at \$37 billion, greater than for any other chronic condition.<sup>15</sup>

## Unhealthy Weight

Consuming sugary drinks increases the risk of gaining excess weight.<sup>16</sup>

Excess weight is a significant risk factor for type 2 diabetes, heart disease, stroke, and some cancers.<sup>17</sup>

Having excess weight may triple the risk of hospitalization due to a COVID-19 infection.<sup>18</sup>

In 2020, 30.3% of California adults reported they had obesity (a body mass index (BMI) of 30.0 or higher).<sup>19</sup> If current trends continue, adult obesity in California is projected to rise to 41.5% by 2030.<sup>20</sup>

California's 2020 prevalence of self-reported obesity for Hispanic adults (36.2%) and Black adults (41.7%) is significantly higher than for white adults (24.4%).<sup>21</sup>

California has the highest obesity-related costs in the United States, estimated at \$15.2 billion annually.<sup>22</sup>

A 2¢/oz state excise tax on sugary drinks is projected to prevent nearly 200,000 cases of obesity and save more than \$1.8 billion in health care costs.<sup>23</sup>

## Dental Caries



There is strong and consistent evidence that consumption of sugary drinks is associated with dental caries among children and adolescents.<sup>24</sup>

Dental caries are largely preventable yet remain the most common chronic health condition among California's children.<sup>25</sup>

More than half of California's kindergartners, and more than 70% of third graders, have had tooth decay.<sup>26</sup>

Tooth decay leads to 874,000 missed days of school each year in California, which interferes with academic success and costs schools \$29 to \$32 million annually in average daily attendance funding.<sup>27</sup>

Tooth decay also negatively affects children's academic performance, social-emotional development, sleep, and nutrition.<sup>28</sup>

Children from low-income families and children of color are much more likely to have tooth decay and suffer the consequences of untreated disease.<sup>29</sup>

*The University of California Research Consortium on Beverages and Health includes faculty from every UC campus working to provide California legislators and communities with the science base for policy to decrease consumption of sugary drinks and increase consumption of water and other healthy beverages.*

**University of California Research Consortium on Beverages and Health • Bringing Science to Policy**

• Find our entire factsheet series at <https://npi.ucanr.edu/Resources/UCRCBH/> • For more information contact: [ceahecht@ucanr.edu](mailto:ceahecht@ucanr.edu) •

**References** <sup>1</sup>Bailey RL et al. 2018. Sources of Added Sugars in Young Children, Adolescents, & Adults with Low and High Intakes of Added Sugars. *Nutrients* 10(1).<sup>2</sup>Imamura F et al. 2015. Consumption of sugar sweetened beverages, artificially sweetened beverages, & fruit juice and incidence of type 2 diabetes: systematic review, meta-analysis, and estimation of population attributable fraction. *BMJ* 351:h3576.  
<sup>3</sup>Yang Q et al. 2014. Added sugar intake and cardiovascular diseases mortality among US adults. *JAMA Intern Med* 174(4):516-524. <sup>4</sup>Barron E et al. 2020. Associations of type 1 & type 2 diabetes with COVID-19-related mortality in England: a whole-population study. *Lancet Diabetes Endocrinol* 8(10):813-822. <sup>5</sup>Centers for Disease Control and Prevention (CDC). 2017. *Long-term Trends in Diabetes*. <sup>6</sup>CDC, *National Diabetes Statistics Report, 2020 and Diagnosed Diabetes by Race and Gender*. <sup>7</sup>American Diabetes Association. 2021. *The Burden of Diabetes in California*. <sup>8</sup>Ibid. <sup>9</sup>Yin J et al. 2021. Intake of Sugar-Sweetened & Low-Calorie Sweetened Beverages and Risk of Cardiovascular Disease: A Meta-Analysis and Systematic Review. *Adv Nutr* 12(1):89-101. <sup>10</sup>Yang Q et al. 2014. Added sugar intake and cardiovascular diseases mortality among US adults. *JAMA Intern Med* 174(4):516-524. <sup>11</sup>Vos MB et al. 2016. Added Sugars and Cardiovascular Disease Risk in Children. *Circ* (135)19:e1017-e1034. <sup>12</sup>American Heart Association. 2017. *California State Fact Sheet*. <sup>13</sup>Ibid. <sup>14</sup>Van Dyke M et al. 2018. Heart Disease Death Rates Among Blacks and Whites Aged ≥35 Years — U.S., 1968–2015. *MMWR Surveill Summ* 67(No. SS-5):1–11. <sup>15</sup>Conroy S et al. 2016. Burden of Cardiovascular Disease in California 2016. California Department of Public Health. <sup>16</sup>Qin P et al. 2020. Sugar and artificially sweetened beverages and risk of obesity, type 2 diabetes mellitus, hypertension, and all-cause mortality: a dose-response meta-analysis of prospective cohort studies. *Eur J Epidemiol* 35(7):655-671. <sup>17</sup>Ibid. <sup>18</sup>CDC. 2021. *Obesity, Race/Ethnicity, and COVID-19*. <sup>19</sup>CDC. *Adult Obesity Prevalence Maps, 2020*. <sup>20</sup>Ward ZJ et al. 2019. Projected U.S. State-Level Prevalence of Adult Obesity and Severe Obesity. *N Engl J Med* 381:2440-2450. <sup>21</sup>CDC. *Adult Prevalence Obesity Maps, 2020*. <sup>22</sup>Ibid. <sup>23</sup>Gouck J et al. 2021. *California: A Sugary Drink Excise Tax*. <sup>24</sup>World Health Organization. 2015. *Guideline: Sugars intake for adults and children*. <sup>25</sup>Dental Health Foundation. 2006. "Mommy, It Hurts to Chew" *The California Smile Survey: An Oral Health Assessment of California's Kindergarten and 3rd Grade Children*. <sup>26</sup>Ibid. <sup>27</sup>Pourat N & Nicholson G. 2009. *Unaffordable Dental Care Is Linked to Frequent School Absences*. UCLA Center for Health Policy Research. <sup>28</sup>American Acad of Pediatric Dentistry. 2012. Guideline on infant oral health care. *Pediatr Dent* 4(5):e148-52. <sup>29</sup>CDC. 2019. *Oral Health Surveillance Report: Trends in Dental Caries and Sealants, Tooth Retention, and Edentulism, United States, 1999–2004 to 2011–2016*.