

Childhood Overweight & Obesity

More than one in four fifth-graders in Contra Costa was overweight or obese.

- Among fifth-graders, boys were more likely to be overweight or obese than girls.
- Latino and African American fifth-graders were more likely to be overweight or obese than fifth-graders in the county overall.
- Antioch, West Contra Costa and Pittsburg unified school districts had higher percents of overweight or obese fifth-graders compared to the county overall.

In 2008–2009, an estimated 3,136 fifth-graders in Contra Costa were overweight or obese. Contra Costa fifth-graders were less likely to be overweight or obese than their peers statewide. The percent of overweight or obese fifth-graders was lower in Contra Costa (26.5%) than California as a whole (31.6%).

The following school districts had the greatest number of overweight or obese fifth-graders: West Contra Costa Unified (826), Mt. Diablo Unified (658), Antioch Unified (531), Pittsburg Unified (270), San Ramon Valley Unified (259) and Brentwood Union (249) school districts. Districts with a significantly higher percent of overweight or obese fifth-graders than the county overall (26.5%) included: Antioch Unified (36.6%), West Contra Costa Unified (36.5%) and Pittsburg Unified (36.2%).

Several districts had a significantly lower percent of overweight or obese fifth-graders than the county overall: Walnut Creek Elementary (19.1%), Lafayette Elementary (16.3%), Moraga Elementary (13.0%), San Ramon Valley Unified (12.6%) and Orinda Union Elementary (9.6%) school districts.

Table 1 ■ Overweight or obese fifth-graders by school district
 Contra Costa County, 2008–2009

	Number	Prevalence	
West Contra Costa Unified	826	36.5%*	In this report, data on “overweight or obese” children are based on measurements taken as part of the California Department of Education’s Physical Fitness test. For more information, see the notes at the end of this section.
Mt. Diablo Unified	658	26.2%	
Antioch Unified	531	36.6%*	
Pittsburg Unified	270	36.2%*	
San Ramon Valley Unified	259	12.6%**	
Brentwood Union Elementary	249	27.3%	
Martinez Unified	69	25.0%	
Walnut Creek Elementary	65	19.1%**	
Lafayette Elementary	58	16.3%**	
Byron Union Elementary	46	25.0%	
John Swett Unified	27	24.5%	
Moraga Elementary	25	13.0%**	
Orinda Union Elementary	24	9.6%**	
Knightsen Elementary	15	NA	
Total	3,136	26.5%	

Total includes all fifth-graders for whom data was reported.

* Significantly higher percent than the county overall.

** Significantly lower percent than the county overall.

Students from low-income communities were more likely to be overweight or obese than those in the county overall. All three Contra Costa school districts with a greater proportion of overweight fifth-graders had a higher percentage of students at schools with fifth-graders who were eligible for free and reduced-priced meals compared to the county overall (40.0%): Pittsburg Unified (80.1%), West Contra Costa Unified (70.0%) and Antioch Unified (56.9%).¹

The greatest number of overweight or obese fifth-graders in Contra Costa was Hispanic/Latino (1,278) followed by white (897), African American/black (464) and Asian (356). A significantly higher percentage of Hispanic/Latino (36.6%) and African American/black (34.2%) fifth-graders were overweight or obese than fifth-graders in the county overall (26.5%). A significantly lower percentage of Asian (20.7%) and white (18.6%) fifth-graders were overweight or obese than fifth-graders countywide. *[Note: Although the percent overweight or obese Native Hawaiian/Pacific Islander students appears higher than the county, due to the small sample size the estimate is not very precise and therefore it is not statistically significantly different from the county estimate.]*

Table 2 ■ Overweight or obese fifth-graders by race/ethnicity
 Contra Costa County, 2008–2009

	Number	Prevalence
Hispanic/Latino	1,278	36.6%*
White	897	18.6%**
African American/Black	464	34.2%*
Asian	356	20.7%**
Native Hawaiian/Pacific Islander	34	35.5%
American Indian/Alaska Native	16	NA
Total	3,136	26.5%

Total includes racial/ethnic groups not listed above.

* Significantly higher percent than fifth-graders in the county overall.

** Significantly lower percent than fifth-graders in the county overall.

In 2008–2009, there were almost twice as many overweight or obese fifth-grade boys as girls in Contra Costa. Among fifth-graders in the county, boys were also more likely than girls to be overweight or obese. More than one-third (34.0%) of fifth-grade boys were overweight or obese compared to less than one-fifth (18.7%) of girls. However, at older ages, boys and girls were equally likely to be overweight or obese. By ninth-grade the percent of overweight or obese boys (25.5%) and girls (26.4%) was similar.

What is childhood overweight & obesity?

Obesity is excess body fat.² Body fat can be difficult to measure, so obesity is often identified using body mass index (BMI), a number calculated from height and weight.³ Although BMI is a fairly good indicator of body fatness, it is not a direct measure of fatness, so a health care provider should determine whether a child has an unhealthy amount of body fat.³

Typically, the terms “overweight” and “obese” for children refer to the Centers for Disease Control and Prevention (CDC) definitions, which are based on BMI ranges for children that vary by gender and age: children with a BMI between the 85th and 95th percentile for their age and gender are considered overweight; those with a BMI for age at or above the 95th percentile are considered obese.⁴

In this report, fifth-grade overweight and obesity data come from the body composition portion of the State Physical Fitness Test. Fifth-graders were considered overweight or obese if their body composition measurement on this test was higher than the “Healthy Fitness Zone” (HFZ). BMI ranges for the HFZ do not exactly match the CDC’s ranges for child overweight and obesity mentioned earlier.⁵ However, all children with a BMI higher than the HFZ would be considered overweight or obese based on the CDC’s standards. Because the HFZ range is slightly more forgiving than the CDC’s criteria, the estimates of

the percent of overweight or obese fifth-graders in this report are lower than they would be if the CDC's standards were used.

Why is it important?

In Contra Costa, more than one in four fifth-graders (26.5%) was overweight or obese in 2008–2009 and more than one in seven low-income preschoolers participating in the Child Health & Disability Prevention Program in the county (15.9%) was obese in 2008.⁶

In the United States, nearly one-third (31.7%) of U.S. children and adolescents (2–19 years old) were overweight or obese in 2007–2008.⁷ An alarming 16.9% of 2–19 year olds were obese: 10.4% of 2–5 year olds; 19.6% of 6–11 year olds and 18.1% of 12–19 year olds.⁷ Nationally, the percent of obese school-aged children and youths in the United States has tripled since 1980.⁷

Obese young people are at risk for a number of health problems throughout their lives. Children who are obese in their preschool years are more likely to be obese as adolescents and adults.⁸ Young people who are obese are more likely than others to develop risk factors associated with cardiovascular disease, including high blood pressure and high cholesterol levels, as well as bone and joint problems and sleep apnea.⁹ They are also more likely to become overweight or obese adults and thus to develop related health problems including heart disease, type 2 diabetes, stroke and some forms of cancer.⁹ Social pressures related to being too heavy can contribute to low self-esteem and other social and psychological consequences among young people.⁹

In addition to the health and quality-of-life implications, the financial burden of this disease is tremendous. Childhood obesity is responsible for \$14.1 billion in direct health care costs.¹⁰ Total costs for obesity-related hospitalizations of children and adolescents nearly doubled from \$125.9 million in 2001 to \$237.6 million in 2005.¹⁰

Who is most impacted?

Racial/ethnic differences in childhood overweight and obesity exist. Hispanic/Latino and African American/black fifth-graders were more likely to be overweight or obese than fifth-graders in Contra Costa overall in 2008–2009. In the United States a higher percentage of Hispanic boys and black girls were obese compared to their white peers in 2007–2008.⁷ These differences exist early on and also impact young American Indian/Alaska Native children nationally. A recent study of 4 year olds in the United States found that the highest percentage of obese children was among American Indian/Alaska Native children followed by Hispanic and black children.¹¹

Income disparities also exist. School districts in Contra Costa with a higher percentage of overweight or obese fifth-graders also had a greater percentage of low-income students than the county overall in 2008–2009. Also at the county level, a higher percentage of adolescents in families with household incomes below 200% of the federal poverty level (64.7%) were overweight or obese compared to those in families with household incomes at or above 200% of the federal poverty level (18.2%) in 2007.¹²

There is no single cause of overweight and obesity.¹³ Children become overweight or obese when they consume more calories than they expend through physical activity, and normal growth and development.¹³ Although some children may be more likely to gain excess weight as a result of their genetics, behaviors including not getting enough physical activity, spending too much time being sedentary, and consuming too many calories (e.g., eating large food and drink portion sizes, calorie-dense foods and sugar-sweetened beverages) play an important role in the development of obesity.¹³ Social and physical environments at home, in child care settings, schools and communities can support or hinder these behaviors.

What can we do about it?

To support healthy growth and development, public health recommendations suggest that children and adolescents engage in at least 60 minutes of physical activity most, preferably all, days of the week; limit time spent being sedentary (e.g., children's total electronic media time, including television viewing time, should be no more than one to two hours a day); and eat a balanced, nutritious, age-appropriate diet that includes reasonable portion sizes, a variety of fruits and vegetables, whole grains, lean meats, low fat dairy, and limited sugar, salt and fat.^{14, 15}

Unfortunately, young people do not get adequate physical activity or eat enough fruits and vegetables. In Contra Costa in 2007, only 35.4% of 5–11 year olds were physically active for at least one hour daily.¹⁶ More than half (57.7%) of 2–11 year olds consumed fewer than five servings of fruits and vegetables daily and almost two-thirds (62.7%) ate fast food at least once a week.¹⁶

Healthy eating and physical activity behaviors can decrease the risk of becoming obese.¹ It is particularly important for children to establish healthy habits for eating and active play early in life. Children who are physically active are more likely to be active as adolescents and adults.¹³ Since home, school and other community environments have the potential to influence children's eating and physical activity behaviors, programs and policies that support healthy choices for children and their families in these environments are critical to address this problem.^{8, 13}

The CDC's Division of Nutrition, Physical Activity and Obesity recommends the following to address childhood obesity: increase breastfeeding (initiation, duration and exclusivity), physical activity and fruit and vegetable consumption; decrease consumption of sugar-sweetened beverages, high energy-dense foods (i.e., foods high in calories per gram weight), and television viewing.¹⁷ In May 2010, the U.S. Childhood Obesity Task Force developed an action plan to reduce childhood obesity to 5% by 2030.¹ The plan suggests that comprehensive approaches involving multiple sectors in society are needed to address the behavioral risk factors associated with obesity.² A summary of the Task Force's recommendations follows:

- Start early with: good prenatal care for parents to ensure healthy weight at conception and during pregnancy; support for breastfeeding; and quality child care environments that offer healthy foods and beverages, and plenty of opportunities for young children to be physically active. Limiting "screen time" (i.e., time spent in sedentary activities such as watching television or playing computer games) is another important strategy to begin implementing early in life.

- Help parents and caregivers make healthy choices for children with simple, useful nutritional information and better food package and menu labeling; less marketing of unhealthy products to children, and improved health care services including BMI measurement for all children.
- Provide greater access to healthy foods by: improving the nutritional quality of federally-supported school meal programs and other foods and beverages sold in schools and offered through after-school programs; increasing access to affordable, healthy food in neighborhoods in underserved communities through new supermarkets and grocery stores and farmers markets; and lowering the price of healthy foods relative to unhealthy foods.
- Encourage children to be more physically active by: providing quality physical education, recess and other physical activity opportunities during and after school; creating better access to safe parks, playgrounds, and indoor and outdoor recreational facilities; and modifying the built environment to make it easier for young people to walk or bike safely in their communities.

Data Sources: Childhood Overweight & Obesity

TABLES

Tables 1–2: Overweight and obesity data from the California Department of Education (CDE), Standards and Assessment Division, 2008–2009 California Physical Fitness Report. Retrieved February 4, 2010 from <http://dq.cde.ca.gov/dataquest/>. These analyses are based on data from the Body Composition portion of the CDE Physical Fitness Test, which uses several methods to evaluate children’s body composition: (1) body mass index (BMI), calculated from measured height and weight and (2) body fatness using triceps and calf skinfolds. Students were considered “overweight” or “obese” if their body composition (i.e., BMI or body fatness) was higher than the “Healthy Fitness Zone (HFZ),” a range developed by The Cooper Institute to indicate the minimum level of fitness thought to provide some protection from health risks associated with inadequate fitness. The HFZ for the body composition test does not directly correspond to the Centers for Disease Control and Prevention categories of “overweight” or “obese.” However, all children with a BMI higher than the HFZ would be considered overweight or obese based on the CDC’s standards. Because the HFZ range is slightly more generous than the CDC’s criteria, the estimates of the percent of overweight or obese 5th graders in this report are lower than they would be if the CDC’s standards were used. For more information about calculating and interpreting BMI for children, go to the CDC’s website: http://www.cdc.gov/healthyweight/assessing/bmi/childrens_bmi/about_childrens_bmi.html.

For more information about the Healthy Fitness Zone, see the CDE Physical Fitness Test—Report Definitions at http://dq.cde.ca.gov/dataquest/PhysFitness/gls_pft_hfz.asp

Also see The Cooper Institute’s Fitness gram/Activitygram Reference Guide at http://www.cooperinstitute.org/ourkidshealth/fitnessgram/documents/FITNESSGRAM_ReferenceGuide.pdf.

The CDE’s aggregate data for number of students tested and percent of students outside the HFZ on the body composition test were used by Contra Costa Health Services’ Community Health Assessment Planning and Evaluation Unit (CHAPE) to calculate the number of overweight or obese students. Because the CDE includes “partially tested students” in the total number of students tested, the number of overweight or obese students calculated by CHAPE may be an overestimate. Counts fewer than five are not shown in order to protect anonymity. Overweight and obesity statistics were not calculated for any group with fewer than 20 cases due to unstable estimates.

Fifth-grade students from several school districts and schools were included in the county total but are not listed separately. Data was not available for all schools. Oakley Unified School District did not provide fitness test data to the state and is therefore not included in the county total. Data presented for Hispanics/Latinos include Hispanic/Latino students of any race. Data presented for whites, Native Hawaiian/Pacific Islanders, Asian, American Indians/

Alaska Natives, and African Americans/blacks include non-Hispanic students. Not all race/ethnicities shown but all are included in totals for the county. “Asian” includes: Asian Indian, Filipino, Cambodian, Chinese, Japanese, Korean, Laotian Vietnamese and Other Asian. “Native Hawaiian/Other Pacific Islander” includes Native Hawaiian, Samoan and Other Pacific Islander. County total included data for several groups of students for whom data is not available separately including those who declined to state their race and Guamanian, Tahitian and Cambodian students.

TEXT

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