



FROM WALLET TO WAISTLINE: THE HIDDEN COSTS OF "SUPER SIZING"

A report prepared by [The National Alliance for Nutrition and Activity](#)

I. Summary

Americans who feel tempted to order larger portion sizes for just a little more money might be surprised to learn the nutritional costs of those "bargains." *From Wallet to Waistline* looks at the financial and caloric costs of upgrading to larger portion sizes of single-serve foods at fast-food restaurants, convenience stores, and other retail food establishments. The results show that upgrading to larger serving sizes often increases price only modestly, but substantially increases calorie and fat content. Value marketing (providing more food for less money) is a technique that is profitable for food companies, but that results in large portion sizes and contributes to overeating.

II. Value Marketing

The increasing size of American food portions is linked to the U.S. food industry's growing reliance on value marketing. Value marketing is a technique used to increase food company profits. It encourages the customer to spend a little extra money to purchase larger portion sizes and leaves the customer with the impression that s/he has "gotten a deal."

For food companies, the actual monetary costs of offering larger portions are small, because the cost of the food itself is small relative to labor, packaging, overhead, transportation, marketing, and other costs. Thus, even the relatively small amounts of extra money consumers spend when "upgrading" to larger portion sizes mean larger corporate profits.

In addition to using price to encourage the purchase of larger portion sizes, fast-food restaurants, in particular, actively encourage consumers to "upgrade" to larger sizes with point-of-purchase displays and verbal sales prompts from employees. Fast-food establishments also encourage consumers to combine their entree with high-profit-margin, high-calorie soft drinks and side dishes like French fries ("Value Meal," "Combo Meal," etc.) -- a technique known in the food industry as bundling.

Larger portions not only contain more calories, but studies show that when people are served more food, they eat more food (Young & Nestle, 2002; Rolls et

al, 2000; Wansink, 1996; Booth et al, 1981). In addition, a national survey found that when people eat out, 67% report that they eat their entire entree either all or most of the time (AICR, 2001). Restaurant owners believe that people generally do not share restaurant entrees. Rather, entrees are purchased for consumption by individuals (Young & Nestle, 1995). Thus, large portion sizes likely contribute to overeating.

III. Major Findings

A. The Costs of "Super Sizing"

For small increases in price, people can purchase larger portions, and as a result, end up with substantially more calories and saturated fat (Tables 1 and 2).

At Cinnabon, a Minibon costs an average of \$2.01 and provides 300 calories and 5 grams of saturated fat. For 48 cents more (a 24% increase in price), you can buy a Classic Cinnabon -- along with 370 more calories (123% more) and almost three times as much saturated fat.

At movie theaters, upgrading from a small to a medium-sized bag of popcorn without butter costs just 71 more cents. However, it also costs an additional 500 calories (i.e., a 23% increase in price buys 125% more calories). If you shell out another 60 cents, you can get a large, which brings the total to 1,160 calories and almost three days' worth of saturated fat. (Getting butter topping adds even more calories and fat, and many movie theaters provide free refills with a large popcorn.)



Even "Titanic" wasn't long enough to justify a grocery bag-sized order of popcorn. A large, unbuttered popcorn contains an average of 1,160 calories and almost three days' worth of saturated fat.

At 7-Eleven, 33 more cents buys you "The Big One" Snickers candy bar or the "King Size" Kit Kat rather than the regular-sized bar. Getting the bigger candy bar also costs an additional 220-230 calories.

For almost all of the items purchased for this study, increases in caloric and saturated fat content far outpaced increases in price. However, there were exceptions to this trend. For a few items, such as "TCBY" 96% Fat Free Frozen Yogurt and upgrading from a tall (small) to a grande (medium) caffe latte at Starbucks, you get what you pay for. Going from a tall Starbucks caffe latte to a grande latte cost an average of 55 cents. That 23% increase in cost is closely in line with the 24% increase in calories and 29% increase in saturated fat. (Note: upgrading from a grande (medium) to venti (large) or from a tall (small) to venti (large) provides two to three times the increase in calories relative to the increase in price.)

B. Hard Facts on Soft Drinks

Soft drinks that are dispensed and sold by the cup (fountain drinks) provide high profit margins and are mainstays of fast-food chains, convenience stores, and movie theaters.

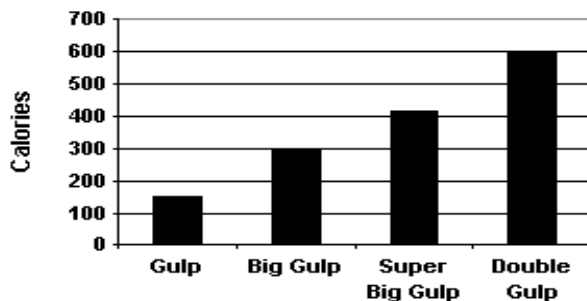
Soft drinks provide some of the least expensive upgrades documented in this report. At McDonald's, just 16 cents takes you from a small to a medium Coca-Cola Classic, and tacks on an extra 60 calories to the bargain. Upgrading from a medium to a large Coke will set you back only 24 more cents, while adding another 100 calories. Should you give in to the invitation to "super size" your drink, add another 20 cents -- and another 100 calories. All told, ordering a super size Coke rather than the small costs 60 cents and 260 calories.



How thirsty do they think we are? Ordering a super size Coke rather than the small costs 60 cents more and 260 extra calories.

At 7-Eleven, it costs even less to upgrade soft drinks, and the available portion sizes are even bigger. Why not get the Double Gulp (the largest size available) instead of the Gulp (the smallest size)? It costs just 37 cents more. However, it contains four times as many calories. It clocks in at 600 calories -- that is 30% of a day's calories in a drink.

7-Eleven Soft Drinks



C. Value Meals

The practice known as bundling -- adding a soft drink and a side dish like French fries to the purchase of an entree -- is responsible for some of the largest increases in calorie content that we found. People usually want to eat meals, rather than just an entree. But fast-food bundling often steers customers toward calorically-dense, low-nutrition foods like French fries and soda, rather



Supersizing food items produces supersize health problems.

than toward healthier options such as salads and yogurt parfaits.

Point-of-purchase displays and prompts offered by employees actively encourage customers to purchase "Meals." While purchasing foods for this study, we were prompted with questions like: "You only want a sandwich?" "Would you like a meal with that?" "Do you want to Combo?"

At McDonald's, the difference between a Quarter Pounder with Cheese and a Quarter Pounder w/Cheese medium Extra Value Meal is \$1.41, 660 calories, and 4 grams of saturated fat. A Wendy's Classic Double with Cheese packs a considerable 760 calories and 19 grams of saturated fat. Turning it into an Old Fashioned Combo Meal adds 600 more calories and 7 grams of saturated fat. It costs just \$1.57 more. Turning a Burger King Whopper into a Value Meal costs just \$1.69, but adds 590 extra calories.

"Value Meals" cost less than it would cost to buy each component separately. At McDonald's, the cost to purchase a Quarter Pounder with Cheese, a medium French fries, and a medium Coke separately would be an average of \$5.03. A medium Quarter Pounder w/Cheese Extra Value Meal costs just \$3.74.

Once you decide on a "Value Meal," there are additional incentives to upgrade to a larger meal. At Burger King, it costs just 87 cents to "king size" the medium Whopper Value Meal. King sizing also adds 440 calories. While conducting this study, prompts to purchase a meal often were directly followed by prompts to upgrade to larger sized meals. We were asked: "Do you want to Combo? Do you want to Biggie?" "You can Super Size the large for only 15 cents more."



Not such a bargain after all. Turning a Burger King Whopper into a Value Meal costs just \$1.69, but adds 590 extra calories.

Interestingly, none of the fast-food outlets that we visited featured on their menus value-priced meals that contained soft drinks and French fries in small sizes, with the exception of kid-oriented meals like McDonald's Happy Meal. At McDonald's, a Quarter Pounder with Cheese with small fries and a small Coke provides 890 calories -- 50% fewer calories than in the large Extra Value Meal. To buy each component separately (small fries, small drink, and Quarter Pounder with Cheese) would cost \$4.40 -- 8 cents more than the cost of the large Extra Value Meal.

IV. Obesity and the Nation's Health

As American portion sizes have grown over the past two decades, the prevalence of overweight and obesity among U.S. adults and children also has risen. Obesity is one of the leading public health challenges of our time. Overweight and obesity affect the majority of American adults (61%) (NCCDPHP, 2002). Obesity rates in adults increased by 60% between 1991 and 2000 (Mokdad et al, 2001), and rates doubled in children over the last 20 years (NCHS, 2001).

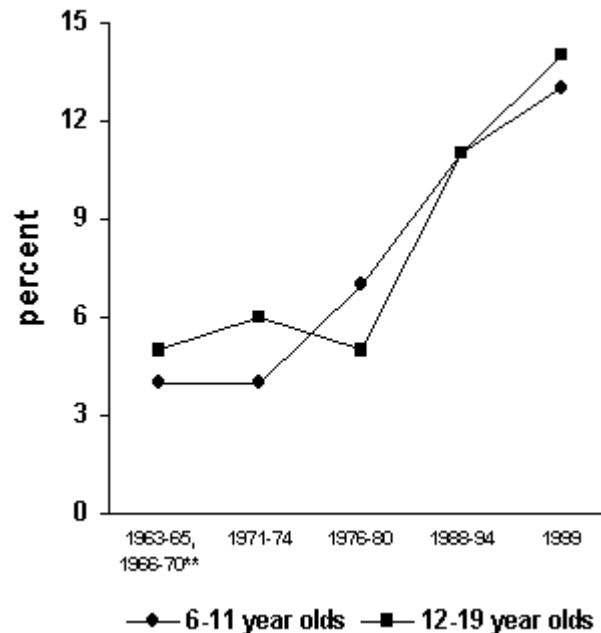
The negative health consequences of the rising obesity rates are already evident. Rates of diabetes (most of which is type 2, which is largely due to obesity, poor diet, and physical inactivity) rose 50% between 1990 and 2000 (Mokdad et al, 2001). In addition, type 2 diabetes rates are increasing in children. Obesity costs American families, businesses, and governments approximately \$117 billion in health-care and related costs each year (US DHHS, 2001).

Obesity is second only to smoking as the leading cause of preventable death in the United States, and is estimated to cause 300,000 premature deaths each year (US DHHS, 2001). Obesity increases the risk of heart disease, stroke, type 2 diabetes, and many cancers, and adversely affects a wide range of medical conditions including high blood pressure, high blood cholesterol, gallbladder disease, sleep apnea, and respiratory problems.

V. Growing Portion Sizes

Food portion sizes have grown over time. In the 1950s, a "family size" bottle of Coke was 26 ounces, while now a single-serve bottle is 20 ounces. McDonald's original burger, fries, and 12-ounce Coke provided 590 calories. Today, a super size Extra Value Meal with a Quarter Pounder with Cheese, super size fries, and a super size Coke delivers 1,550 calories. A typical bagel used to weigh 2 to 3 ounces, compared to 4 to 7 ounces today (Young & Nestle, 1995).

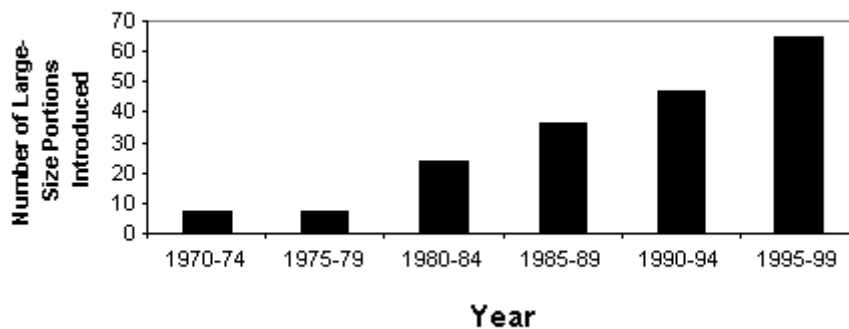
Obesity in Children



* Obese is defined by the 95th percentile of the sex-specific 2000 CDC BMI-for-age-growth charts.
** Data for 1966-70 is for adolescents ages 12-17.

Although portion sizes started to increase in the 1970s, they grew sharply in the 1980s and have continued to increase since then (Young & Nestle, 2002). This trend has occurred in parallel with increases in overall calorie intake, available calories in the food supply, and the prevalence of overweight and obesity (Young & Nestle, 2002).

Introduction of New, Larger Portions, 1970-1999



Young LR, Nestle M. *American Journal of Public Health* 2002, vol. 92, pp. 246-249.

Although portion sizes and obesity rates have grown in parallel, larger portions are not, of course, solely responsible for the current obesity epidemic in the U.S. Many factors influence body weight, including levels of physical activity and other dietary factors. However, excess energy intake is a major cause. According to U.S. Department of Agriculture (USDA) national survey data, Americans' average daily caloric intake has risen from 1,876 kcal to 2,043 kcal from 1978 to 1995 (Lin et al, 1999). That 167-calorie-per-day increase theoretically works out to an extra 17 pounds of body fat every year (given no change in metabolism or physical activity levels).

VI. Study Methodology

Popular single-serve food items that are widely available in different portion sizes at national fast-food chains, convenience stores, ice cream parlors, coffee shops, and movie theaters were identified. Nutrition information for restaurant foods was determined from company websites and independent laboratory testing by the Center for Science in the Public Interest (Jacobson and Hurley, 2002). Nutrition information for packaged foods sold at convenience stores was obtained from Nutrition Facts labels.

During the first week of May 2002, members of the National Alliance for Nutrition and Activity gathered pricing data in Washington, DC; Des Moines, IA; Little Rock, AR; Sacramento, CA; and Oakland, CA. Pricing data were collected on a standardized form using a consistent, predetermined protocol. When possible, price information was obtained from two store locations in each city. At the first location, volunteers purchased each food item and recorded the pre-tax price

along with information about sales prompts and other point-of-purchase displays. At the second location, pricing data were determined from the menu or menu board or, for 7-Eleven, by shelf price or by having the product scanned at the cash register.

The average price for each portion size of each food item was determined by calculating the average price per city and then averaging the price between cities.

VII. Conclusions

Value marketing is ubiquitous, and "getting more for your money" is ingrained in the American psyche. However, bigger is rarely better when it comes to food. The true price of larger portions is larger calorie and saturated fat numbers, and larger waistlines. Health professionals and nutrition educators should help consumers understand the health cost of "super sizing" and the benefits of "normal sizing." Our advice to consumers: When in doubt, order the small or share with a friend. The food industry could help by 1) offering competitively priced value meals that include healthier side dishes like salads, 2) offering competitively priced value meals with small fries and beverages, and 3) providing clear nutrition information at the point of purchase.

VIII. Table 1: Bad Bargains

7-Eleven Gulp to Double Gulp Coca-Cola Classic
37 extra cents buys 450 extra calories
(42% more money = 300% more calories)

Cinnabon Minibon to Classic Cinnabon
48 extra cents buys 370 extra calories
(24% more money = 123% more calories)

Movie Theater Small to Medium Unbuttered Popcorn
71 extra cents buys 500 extra calories
(23% more money = 125% more calories)

7-Eleven Regular to "The Big One" Snickers Candy Bar
33 extra cents buys 230 extra calories
(48% more money = 82% more calories)

7-Eleven Doritos, Nacho Cheesier! Flavor, "Big Grab" to "99 Cents Size"
24 extra cents buys 230 extra calories
(32% more money = 88% more calories)

McDonald's Small to Super Size Coca-Cola Classic
 60 extra cents buys 260 extra calories
 (58% more money = 173% more calories)

McDonald's Small to Large Fries
 64 extra cents buys 330 extra calories
 (62% more money = 157% more calories)

McDonald's Quarter Pounder with Cheese to Medium Quarter Pounder with
 Cheese Extra Value Meal
 \$1.41 extra buys 660 extra calories
 (61% more money = 125% more calories)

Subway 6-inch to 12-inch Tuna Sub
 \$1.53 extra buys 420 extra calories
 (47% more money = 100% more calories)

Wendy's Classic Double w/Cheese to Classic Double w/Cheese Old Fashioned
 Combo Meal 2
 \$1.57 extra buys 600 extra calories
 (47% more money = 79% more calories)

Baskin Robbins Chocolate Chip Ice Cream, Kids Scoop to Double Scoop
 \$1.62 extra buys 390 extra calories
 (129% more money = 260% more calories)

IX. Table 2: Price and Nutrition Information for Common Restaurant and Convenience Store Foods

Location	Item	Size	Ounces/ Cups	Calories	Total Fat (g)	Saturated Fat (g)	Average Price (\$)
Cinnabon ^a	Minibon		3 oz	300	11	5	2.01
	Cinnabon		8 oz	670	34	14	2.49
"TCBY"	Frozen Yogurt, 96% Fat Free	Small Cup	7 oz	265	6	4	1.80
		Regular Cup	9 oz	340	8	5	2.37
		Large Cup	11 oz	420	10	6.5	2.77
Baskin Robbins	Chocolate Chip Ice Cream, Hard Scooped	Kids Scoop	2.5 oz	150	10	6	1.26
		Single Scoop	4 oz	270	17	11	1.65
		Double Scoop	8 oz	540	34	22	2.88
Starbucks	Caffe Latte with Whole Milk	Tall	12 oz	210	11	7	2.44
		Grande	16 oz	260	14	9	2.99
		Venti	20 oz	350	18	12	3.29

Movie Theater	Popcorn without Butter	Small	7 cups	400	27	19	3.13
		Medium	16 cups	900	60	43	3.84
		Large	20 cups	1,160	77	55	4.44
Subway	Tuna Sub	6-inch	8.8 oz	420	21	5	3.29
		12-inch	17.6 oz	840	42	10	4.82
	Fresh Value Meal 4, 6-inch Tuna Sub ^b			860	36	9	4.66
Taco Bell	Nachos	Supreme	7 oz	440	24	7	1.60
		BellGrande	11 oz	760	39	11	2.74
		Mucho Grande	18 oz	1,320	82	25	3.71
	Burrito	Bean	7 oz	370	12	4	0.90
		Beef Supreme	8.75 oz	430	18	7	2.01
		Beef Double Supreme	10.25 oz	510	23	9	2.47
Burger King	Whopper		10 oz	680	39	13	2.24
	Whopper Value Meal	Medium ^c		1,270	57	23	3.93
		Large ^d		1,510	64	26	4.39
		King ^e		1,710	69	29	4.80
McDonald's	French Fries	Small	2.4 oz	210	10	2	1.03
		Medium	5.2 oz	450	22	4	1.50
		Large	6.2 oz	540	26	5	1.67
		Super Size	7 oz	610	29	5	1.90
	Coca-Cola Classic	Small	16 oz	150	0	0	1.04
		Medium	21 oz	210	0	0	1.20
		Large	32 oz	310	0	0	1.44
		Super Size	42 oz	410	0	0	1.64
	Chocolate Shake	Small	12 oz	350	11	7	1.53
		Medium	16 oz	510	15	10	1.90
		Large	21 oz	770	23	15	2.31
	Quarter Pounder w/Cheese		7 oz	530	30	13	2.33
	Quarter Pounder w/Cheese Extra Value Meal	Medium ^f		1,190	52	17	3.74
		Large ^g		1,380	56	18	4.32
		Super Size ^h		1,550	59	18	4.47
	Chicken McNuggets	6 piece	3.8 oz	290	17	4	2.10
9 piece		5.7 oz	430	25	5	2.82	
Wendy's	Classic		11 oz	760	45	19	3.32

	Double w/Cheese						
	Classic Double w/Cheese Old Fashioned Combo Meal 2	Regular ⁱ		1,360	68	26	4.89
		Biggie Size ⁱ		1,540	72	27	5.28
7-Eleven	Kit Kat	Regular	1.5 oz	220	11	7	0.69
		King Size	3 oz	440	22	14	1.02
	Snickers	Regular	2.1 oz	280	14	5	0.69
		"The Big One"	3.7 oz	510	24	9	1.02
	Doritos, Nacho Cheesier!	"Big Grab"	1.75 oz	260	13	2	0.75
		"99 Cents" Size	3.25 oz	490	25	5	0.99
	Coca-Cola Classic ^k	Gulp	16 oz	150	0	0	0.89
		Big Gulp	32 oz	300	0	0	0.99
		Super Big Gulp	44 oz	415	0	0	1.09
		Double Gulp	64 oz	600	0	0	1.26

Footnotes

- ^a Saturated fat numbers include trans fat.
- ^b Includes Big Grab Lay's Classic Potato Chips and Medium Coca-Cola Classic.
- ^c Includes Medium French Fries and Medium Coca-Cola Classic.
- ^d Includes Large French Fries and Large Coca-Cola Classic.
- ^e Includes King French Fries and King Coca-Cola Classic.
- ^f Includes Medium French Fries and Medium Coca-Cola Classic.
- ^g Includes Large French Fries and Large Coca-Cola Classic.
- ^h Includes Super Size French Fries and Super Size Coca-Cola Classic.
- ⁱ Includes Biggie French Fries and Medium Cola.
- ^j Includes Great Biggie French Fries and Biggie Cola.
- ^k Includes ice.

X. References

American Institute for Cancer Research (AICR). "As Restaurant Portions Grow, Vast Majority of Americans Still Belong to "Clean Plate Club, New Survey Finds." Washington, DC: AICR News Release, January 15, 2001.

Booth DA, Fuller J, Lewis V. "Human Control of Body Weight: Cognitive or Physiological? Some Energy Related Perceptions and Misperceptions." In: Cioffi LA, James WPT, Van Itallie TB, eds. *The Body Weight Regulatory System: Normal and Disturbed Mechanisms*. New York, NY: Raven Press, 1981, pp. 305-314.

Jacobson M, Hurley J. *Restaurant Confidential*. New York: Workman Publishing, 2002.

Lin B, Guthrie J, Frazao E. *Away-From-Home Foods Increasingly Important to Quality of American Diet*. Washington, DC: U.S. Department of Agriculture, Economic Research Service, 1999. Agriculture Information Bulletin No. 749.

Mokdad AH, Bowman B, Ford E, Vinicor F, Marks J, Koplan J. "The Continuing Epidemics of Obesity and Diabetes in the United States." *Journal of the American Medical Association* 2001, vol. 286, no. 10, pp. 1195-1200.

National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP), Centers for Disease Control and Prevention (CDC). "Obesity and Overweight -- A Public Health Epidemic." Accessed at <http://www.cdc.gov/nccdphp/dnpa/obesity/epidemic.htm> on January 9, 2002.

National Center for Health Statistics (NCHS), Centers for Disease Control and Prevention. "Prevalence of Overweight Among Children and Adolescents: United States, 1999." Accessed at <http://www.cdc.gov/nchs/products/pubs/pubd/hestats/overwght99.htm> on March 16, 2001.

Rolls BJ, Engell D, Birch LL. "Serving Portion Size Influences 5-Year-Old But Not 3-Year-Old Children's Food Intake." *Journal of the American Dietetic Association* 2000, vol. 100, pp. 232-234.

U.S. Department of Health and Human Services (US DHHS). "The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity 2001." Rockville, MD: U.S. Department of Health and Human Services, Public Health Service, Office of the Surgeon General, 2001.

Wansink B. "Can Package Size Accelerate Usage Volume?" *Journal of Marketing* 1996, vol. 60, pp. 1-14.

Young LR, Nestle M. "The Contribution of Expanding Portion Sizes to the U.S. Obesity Epidemic." *American Journal of Public Health* 2002, vol. 92, pp. 246-249.

Young LR, Nestle M. "Portion Sizes in Dietary Assessment: Issues and Policy Implications." *Nutrition Reviews* 1995, vol. 53, pp. 149-158.