

**Table. Average Caloric Content and Number of Servings in *The Joy of Cooking*, by Publication Year**

Characteristic	Publication Year						
	1936	1946	1951	1963	1975	1997	2006
Mean total calories per recipe (SD)	2123.8 (1050.0)	2122.3 (1002.3)	2089.9 (1009.6)	2250.0 (1078.6)	2234.2 (1089.2)	2249.6 (1094.8)	3051.9 (1496.2)
Mean average calories per serving (SD)	268.1 (124.8)	271.1 (124.2)	280.9 (116.2)	294.7 (117.7)	285.6 (118.3)	288.6 (122.0)	384.4 (168.3)
Mean number of servings per recipe (SD)	12.9 (13.3)	12.9 (13.3)	13.0 (14.5)	12.7 (14.6)	12.4 (14.3)	12.4 (14.3)	12.7 (13.0)

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## The Joy of Cooking Too Much: 70 Years of Calorie Increases in Classic Recipes

**Background:** Obesity has been associated with the expanding portion sizes of away-from-home foods (1). Although portion size norms and calorie density have increased outside the home, they could also have a parallel or referred impact on serving sizes in the home (2, 3). Cookbook recipes might provide a longitudinal gauge of how serving sizes and calorie density have changed inside homes. One cookbook, *The Joy of Cooking*, has been updated approximately every 10 years since 1936 (4) and could provide a glimpse into the changing norms of U.S. food preparation and serving sizes over the past 70 years (5).

**Objective:** To assess changes in calorie density and serving sizes of household meals since 1936, as reflected in recipes in *The Joy of Cooking*.

**Methods:** We content-analyzed the 7 editions of *The Joy of Cooking* (1936, 1946, 1951, 1963, 1975, 1997, and 2006) to determine how serving sizes and calorie density have changed over the past 70 years (Table). Since the first edition in 1936, only 18 recipes have been continuously published in each subsequent edition. By using standard nutritional analysis techniques, we determined serving size calorie levels for each recipe in each edition.

We performed all analyses of variance by using SPSS statistical software, version 12.0 (SPSS, Chicago, Illinois). We considered a *P* value less than 0.05 to be statistically significant.

**Results:** Over the past 70 years, the total caloric content increased for 14 of the 18 recipes. Because of changes in ingredients, the mean average calories in a recipe increased by 928.1 (from 2123.8 calories [95% CI, 1638.7 to 2608.9 calories] to 3051.9 calories [CI, 2360.7 to 3743.1 calories]), representing a 43.7% increase ( $P < 0.001$ ). As the Table indicates, mean average calories per serving increased for 17 of 18 recipes and was influenced by both changes in ingredients and changes in serving size. The resulting increase of 168.8 calories (from 268.1 calories [CI, 210.4 to 325.8 calories] to 436.9 calories [CI, 359.1 to 514.7 calories]) represents a 63.0% increase ( $P < 0.001$ ) in calories per serving. Given that the average 2006 recipe had 1.1 fewer servings than in 1936, the average calorie density per serving size has increased by 37.4% ( $P < 0.001$ ).

Over the 70-year history of *The Joy of Cooking*, the recommended serving sizes were altered at 3 points. Between 1946 and 1951, 3 of 18 recipes increased their serving size by an average of 32.5%. Between 1951 and 1963, 4 recipes increased their serving size by an average of 20.0%. Between 1997 and 2006, 5 recipes increased their serving size by an average of 21.1%. Only 3 recipes decreased their serving size at any point in the past 70 years, but all 3 were compensated by subsequent increases in later years.

**Discussion:** The mean average calorie density in 18 classic recipes has increased 35.2% per serving over the past 70 years. This is due mostly to the use of higher-calorie ingredients and partly to serving sizes that showed small increases in the late 1940s and early 1960s and a 33.2% increase since 1996.

The calories and portion sizes of classic recipes may reflect prevailing tastes and norms. Yet, they may also establish or reinforce exaggerated norms in other settings, such as new families. Although this study is largely descriptive, it implies a prescriptive recommendation for families. The serving size and calorie composition of classic recipes need to be downsized to counteract growing waistlines.

**Conclusion:** Calorie density and serving sizes in recipes from *The Joy of Cooking* have increased since 1936.

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**Potential Financial Conflicts of Interest:** None disclosed.

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## CORRECTIONS

### Correction: What Do You Do When Your Loved One Is Ill?

In a recent article by Fromme and colleagues (1), the questions listed in Table 1 are excerpted, not modified, from reference 1 of the article (2). The online version of the article has been corrected.

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