

# Consumer responses to nutrition claims in food advertisements

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THE SNACK THAT WON'T GO TO WAIST.

Which gives your child more nutrition?

1 OZ.  
LUCKY CHARMS<sup>®</sup>

1 EGG PLUS  
1 SLICE BACON

The use of nutrition claims in food advertising has become increasingly common in recent years. Because of heightened public awareness of the importance of good nutrition, advertisers are recognizing the potential benefits from an emphasis on the nutritional value of foods. Consumers can be misled if nutrition claims are inaccurate; however, they can also be misled by nutrition claims that are accurate if the information that is presented is misinterpreted. These and other related concerns have prompted the Federal Trade Commission (FTC) to propose a Trade Regulation Rule that would govern the kinds of nutrition claims that can be made in advertisements for food.

The present research was done to study the effects of nutrition claims in food advertisements on the consumer. One purpose was to determine whether nutrition claims in food advertisements attract the attention of consumers and if they create a

more favorable impression of the advertised product than advertisement without nutrition claims. Another purpose was to explore how consumers' responses to nutrition claims are affected by personal characteristics, attitudes about nutrition, and knowledge of the meanings of nutrition terms. The findings will clarify some of the issues surrounding the FTC's proposed regulations and will provide information for future planning of nutrition education programs.

## Methods

Data were obtained from personal interviews with 82 adult women in California. Thirty-five were faculty women from the University of California, Davis, excluding members of the Departments of Nutrition and Food Service. Selected faculty were professors or were full-time lecturers with doctorate degrees. The remaining 47 were paraprofessional nutrition education assistants (aides) from the Expanded Food and Nutrition Education Program (EFNEP) from five counties in central California. (EFNEP is a nutrition education program administered by the University of California Cooperative Extension and directed toward low-income families.) These two groups were chosen because of differences in occupation, education, and income indicative of higher and lower levels of socioeconomic status (SES).

A portfolio containing eight pairs of colored food advertisements (ads) taken from popular women's magazines was shown to respondents. Ads were selected so that a variety of foods would be represented along with various types of nutrition claims defined by the proposed Trade Regulation Rule. In five of the eight pairs, one ad used a nutrition claim as the primary promotional technique, while the paired ad used a more conventional method to promote a similar product; in two of the ad pairs both ads contained nutrition claims; and in the final pair, neither ad referred to nutrition.

Respondents were asked to select the ad in each pair that would most likely catch their attention if they saw it in a magazine, and the one that created a more favorable impression of the product. Additional questions were asked of the respondents regarding personal background and other characteristics.

Near the conclusion of the interview, respondents were asked to select the best definition for each of seven terms from four given alternatives. The terms "calorie," "complete protein," "cholesterol," "polyunsaturated fat," and "U.S. Recommended Daily Allowance" (U.S. RDA)

were considered to have only one correct definition. Alternative definitions for the other two terms, "nutritious" and "wholesome," were selected to reflect definitions most commonly used by nutrition educators. Unlike the terms that were allowed only one correct definition, the latter two words were open to interpretation.

Finally, as an indication of attitudes about the importance of nutrition information, respondents were asked how strongly they agreed or disagreed with the following statement:

If you don't know anything about basic nutrition, you can't make wise food choices.

## Results

Our findings indicate that paying attention to ads and having a favorable impression created by ads are two different dimensions of consumer response. Data in table 1 show that attention was most often captured by features of ad design, such as colorful layout, appetizing food, or familiar people or cartoon characters. Nutrition claims were never the most frequently mentioned reason for choice. The distribution of choices between ads with and without a nutrition claim differed significantly in only one out of five ad pairs.

In contrast, the use of nutrition claims appears to create a more favorable impression of the advertised product. For all ad pairs where it could apply, respondents most frequently cited the nutrition claim to

explain their choice of the ad that created a more favorable impression.

Knowledge of the meanings of terms used in nutrition claims was generally poor among subjects. Table 2 shows that in the average total score for all subjects, less than half of the definitions chosen were correct. Terms most often defined incorrectly by both faculty and EFNEP aides were "U.S. RDA" and "cholesterol." There was a tendency to equate the U.S. RDA with a minimum requirement, and most respondents thought that cholesterol is a kind of fat that causes heart attacks. There was, however, a highly significant difference by socioeconomic status. EFNEP aides (lower SES) provided fewer correct definitions than did faculty (higher SES).

Respondents' definitions of the terms "nutritious" and "wholesome" are shown in table 3. The percentage of respondents selecting each definition did not vary by faculty/EFNEP status. In both groups, about two-thirds of the respondents thought that "nutritious" referred to a food that is high in nutrient content but relatively low in calories. About 20 percent equated "nutrition" with natural characteristics of food.

Less than half of the respondents equated the term "wholesome" with nutritional value, while nearly an equal percentage perceived this word to be related to food sanitation. Thirteen percent looked upon wholesome food as organically grown with nothing artificial added.

TABLE 1. Responses to Advertisements for Similar Products, with and without Nutrition Claims

Ad pair	More likely to catch attention		Creates a more favorable impression	
	Percent of respondents (N = 82)	Reason(s) most frequently given	Percent of respondents (N = 82)	Reason most frequently given
1 Sugared cereals comparison claim	54	layout	76 <sup>+</sup>	nutrition claim
paired ad	46		24	
2 Orange juice emphatic claim	56	people/layout*	56	nutrition claim
paired ad	44		44	
3 Vegetable oil cholesterol claim	49	food	72 <sup>+</sup>	nutrition claim
paired ad	51		28	
4 Bananas emphatic claim	57	food	61 <sup>+</sup>	nutrition claim
paired ad	43		39	
5 Margarine cholesterol claim	78 <sup>+</sup>	layout/food	74 <sup>+</sup>	nutrition claim
paired ad	22		26	
6 Breakfast cereal emphatic claim	65 <sup>+</sup>	people	72 <sup>+</sup>	nutrition claim
comparison claim	35		28	
7 Snack foods emphatic claim	32	people	42	nutrition claim
nutrition claim	68 <sup>+</sup>		58	
8 Canned ham traditional product	44	layout	71 <sup>+</sup>	food itself
new product	56		29	

\*Two reasons are listed when responses differ by less than 5%.

<sup>+</sup>Significantly different from 50-50 distribution (p < .05).

Table 4 shows that, among both faculty and EFNEP aides, younger women more often mentioned nutrition claims as reasons why ads created more favorable impressions than did older women. Younger EFNEP aides were also more likely to say that nutrition was the reason why the ads caught their attention. Among EFNEP subjects, agreement with the statement about the importance of nutrition knowledge was related to the amount of time they had spent with EFNEP. This attitude was also related to the number of times nutrition claims were mentioned as reasons for a favorable impression of the product. Both faculty and EFNEP respondents were as likely to have a more favorable impression of products advertised with nutrition claims, whether or not they understood the meanings of the terms used in the ads.

### Conclusions

Since this study was conducted under controlled experimental conditions, it cannot be assumed that all consumers will respond to magazine food ads in the same manner as our subjects. Moreover, our sample intentionally represented two highly select groups along the socioeconomic spectrum. Differences in magazine reading habits and product purchase behavior suggest that the results of our study have greater implications for lower SES groups.

Nutrition claims in food ads are not as potent attention-getting devices as other factors such as attractive pictures of food and people, or a colorful design. However, nutrition claims do have the potential to create an advertising advantage by fostering more favorable impressions of the product. This advantage exists whether or not the consumer fully understands the significance of the nutritional claim.

The wide appeal of nutrition claims coupled with the possibility of misinterpreting the information lends support to the position of the Federal Trade Commission and of many nutrition educators that the use of nutrition claims in food advertisements needs closer controls.

Because consumers' perceptions of a nutritional claim may be influenced by their understanding of the meaning of terms used in the claim, further consideration should be given to the selection of appropriate standards to govern terminology. Our study shows that many consumers perceive a difference between the words "nutritious" and "wholesome." It is likely that the FTC proposal to regulate these two words under the same definition would be confusing.

There is a need to investigate how different types of nutrition claims influence con-

sumer response. More information is also needed regarding consumers' perceptions of and reactions to specific nutrients emphasized in claims. Consumers may be more susceptible to nutrition claims that promise health benefits and convey an aura of scientific authority and less favorably impressed when they are able to use personal experience or common sense to evaluate a claim.

Nutrition education has tended to focus primarily on creating an awareness of the importance of good nutrition to health by emphasizing the functions of key nutrients, the sources of nutrients in foods, and the more practical aspects of food selection and meal preparation. There is little question that these are relevant focal points for nutrition education programs. Our study indicates, however, that exposure to this type

of training can lead to a positive attitude about the importance of nutrition knowledge without necessarily increasing ability to interpret the meanings of nutrition terms commonly used in food ads. Yet, this favorable attitude toward nutrition was significantly related to a favorable impression of ads containing these claims. If nutrition education is to be effective, it must go beyond the level of simple awareness of the importance of good nutrition. It must also give consumers the specific tools necessary to handle the vast amounts of information being presented in advertisements and other forms of mass media.

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TABLE 2. Percent of Respondents Selecting Correct Definitions for Nutrition Terms

Nutrition term	Faculty	EFNEP aides	All subjects
Calorie	97	70	82
Complete protein	74	57	65
Cholesterol	20	6	12
U.S. Recommended Daily Allowance	3	2	2
Polyunsaturated fat	71	55	62
Total score (avg.)	54	38*	44

\*Significantly lower than faculty score (p < .001).

TABLE 3. Definitions of "Nutritious" and "Wholesome" Selected by Respondents

Definition	Faculty (%)	EFNEP (%)	All subjects (%)
<b>Nutritious</b>			
High in nutrients but relatively low in calories	66	68	67
Natural food which does not contain additives and is not highly processed	20	21	21
High in protein	3	2	2
Don't know or can't decide	11	9	10
<b>Wholesome</b>			
High in protein, vitamins, and minerals	46	40	42
Clean and fresh—not contaminated with bugs, mold or filth	34	40	38
Grown organically with nothing artificial added	14	13	13
Don't know or can't decide	6	7	7

TABLE 4. Correlations between Personal Variables and Food Ad Responses for EFNEP Aides (Bottom Half of Matrix) and Faculty Women (Top Half of Matrix)

	FACULTY	Age	Children at home	Nutrition reasons given for attention to ads	Nutrition reasons given for favorable impressions of ads	Correct definitions	Attitude toward nutrition knowledge
EFNEP AIDES							
Age			-.05	.04	-.40*	-.16	-.09
Children at home		-.23		.20	.19	-.12	-.15
Nutrition reasons given for attention to ads		-.25*	-.18		.31*	.06	.16
Nutrition reasons given for favorable impression of ads		-.35*	.02	.24*		-.01	.23
Correct definitions		-.04	-.06	.29*	.11		.32*
Attitude toward nutrition knowledge		.12	-.16	.17	.28*	-.02	
Years with EFNEP		—	—	.06	.06	.18	.32*

\*Significant correlation (p < .05)