Nutrition Accuracy in Popular Magazines

(January 1997-December 1999)

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- Do I need more calcium?
- Is it more important for me to cut back on fat or count calories?
- What kinds of food should I choose when I'm eating out?
- Does this dietary supplement really work?

When Americans want answers to questions such as these, they often turn to popular magazines. In a survey conducted in 1999 by the American Dietetic Association, almost half (47%) of the respondents stated that magazines were one of their top sources of nutrition information, and 87% said that they considered magazines to be a valuable information source. Clearly, the American public has a great deal of confidence in the nutrition information presented in popular magazines. But is this confidence justified?

The American Council on Science and Health (ACSH) has been tracking nutrition reporting in magazines for 18 years. Over that period, ACSH has found that the quality of the reporting has improved, reflecting most magazines' growing commitment to educating their readers. In this, the eighth *Nutrition Accuracy in Popular Magazines* survey, ACSH found the majority of the magazines surveyed (14 out of 20 or 70%) that were EXCELLENT or GOOD sources of nutrition information. All of the remaining magazines in the survey were FAIR information sources. For the first time in the history of ACSH's surveys, no magazine scored in the POOR range. Table 1 summarizes the results of the survey.

ADA(American Dietetic Association), Nutrition and You: Trends 2000, Chicago: ADA, 2000.

Nutrition Accuracy in Popular Magazines

Table 1. RANKING OF EVALUATED MAGAZINES

Magazine (listed by target audience group)	Circulation (in millions)*	1995–1996 survey scores (percent)	1997–1999 scores (percent)	Group scores (percent)
Consumers				88
Parents	1.8	88	91	
Consumer Reports	4.7	95	89†	
Reader's Digest	15.0	86	83	
Homemaking				88
Cooking Light	1.4	85	90†	
Good Housekeeping	4.7	90	90	
Better Homes and Gardens	7.6	92	83†	
Health				81
Shape	1.0	81	86 [†]	
Health	1.0	87	84	
Runner's World	0.5	82	82	
Men's Health	1.5	81	82	
Fitness	0.9	79	78	
Muscle & Fitness	0.5	70	73	
Prevention	3.3	86	72†	
Women's				79
Self	1.1	77	87†	
Glamour	2.1	89	84†	
Woman's Day	4.5	85	84	
Ladies'Home Journal	4.6	NA	80	
Cosmopolitan	2.7	74	79 [†]	
Redbook	2.9	83	78 [†]	
Mademoiselle	1.7	79	77	

^{*} All circulation figures are for the second six months of 1997. Circulation for *Consumer Reports* was obtained from Consumers'Union. All other circulation figures were obtained from *Advertising Age*.

NANot included in this evaluation.

Three magazines were rated EXCELLENT (90–100% of the possible points): *Parents* (91%), *Cooking Light* (90%), and *Good Housekeeping* (90%).

Eleven magazines were rated GOOD (80–89%): Consumer Reports (89%), Self (87%), Shape (86%), Glamour (84%), Health (84%), Woman's Day (84%), Better Homes and Gardens (83%), Reader's Digest (83%),

[†] Significantly different from 1995–96.

Men's Health (82%), Runner's World (82%), and Ladies'Home Journal (80%).

Six magazines were rated FAIR (70–79%): Cosmopolitan (79%), Fitness (78%), Redbook (78%), Mademoiselle (77%), Muscle & Fitness (73%), and Prevention (72%).

The Survey: Methodology and Rating Criteria

For this survey, as for the previous surveys in this series, ACSH identified 20 top-circulating U.S. magazines that regularly publish articles on nutrition topics. We made an effort to include magazines with different target audiences in order to sample articles aimed at a variety of readers. Some magazines that appeared in previous surveys were not included in this one because their circulation had dropped or because they did not publish a sufficient number of nutrition articles during the study period to allow a fair evaluation.

For each magazine, we identified all nutrition articles of at least one-half page in length published between January 1997 and December 1999, inclusive. If more than 10 appropriate articles were available, we randomly selected 10 using a random number generator.² To minimize judging bias, we electronically scanned the articles and reformatted them to eliminate identifying features such as magazine titles and author names. This method of blinding appears to have been effective in most cases; one judge noted that he was unable to determine which articles came from which magazines in almost all instances. However, some articles from *Consumer Reports* remained recognizable to the judges because of this magazine's unique product ratings.

Four experts in nutrition and food science independently judged the quality of each of the 198 magazine articles in the following three areas:

- Factual accuracy (Was the information in the article scientifically sound? Did the article document the sources of the information?)
- Presentation (Was the article objective? Was the headline consistent with the content? Were the conclusions logical?)
- Recommendations (Did the article make practical recommendations? Were the recommendations supported by information in the article? Were they based on accepted nutritional practices?)

Although we had planned to evaluate 10 articles from each magazine, we found only nine appropriate articles in *Ladies'Home Journal*, and our judges concluded that one of the selected articles from *Reader's Digest* was outside the scope of our study. Therefore, we evaluated nine articles from each of these two magazines.

For each of eight separate points, the judges were asked to indicate whether they "strongly agreed," "somewhat agreed," were "neutral," "somewhat disagreed," or "strongly disagreed" with the statement. These responses corresponded to numeric values ranging from a high score of five to a low of one. A composite score was determined for each article based on the judges' evaluations, and the composite scores for each magazine were determined by averaging the scores for all articles in that magazine. The study statistician, Dr. Jerome Lee, then tabulated the results to determine each magazine's ranking. The highest possible score was 100 percent. Categories were assigned as follows: EXCELLENT (100–90%), GOOD (89–80%), FAIR (79–70%), and POOR (below 70%).

In general, the judges were impressed with the overall quality of the magazine articles included in this survey. Dr. F.J. Francis, for example, said that it was an "agreeable surprise" to see how good the articles were. Similarly, judge Manfred Kroger noted that many of the articles were of high quality and that "writers seem to be more tuned in to credible information" than they used to be. Dr. Irene Berman-Levine was pleased to see that the magazines addressed a wide variety of nutrition topics—not just weight loss. "Writers, editors and readers have realized that nutrition is far more than diets." she said.

Because the rating criteria and methodology of the current survey are the same as those used in three previous surveys (1990–92, 1992–94, and 1995–96), the new results can be directly compared with the older findings. When the four successive surveys are compared, one result stands out: the current (1997–99) survey is the first in which no magazine received a POOR rating. In other respects, however, the current results are similar to those obtained in 1992–94 and 1995–96 and far superior to those obtained in 1990–92 or earlier.

In the discussions that follow, we note those instances in which the difference between a magazine's score in the current survey and that in the 1995–96 survey is "statistically significant." Statistical significance indicates that the change is unlikely to have occurred by chance alone; it very likely reflects a real difference in the quality of the articles published during the two time periods.

Our statistician also analyzed the current ratings to determine whether the differences among various magazines were statistically significant, both in terms of their overall scores and for each of the three subcategories (accuracy, presentation, and ratings). These findings are summarized in Table 2. In terms of overall scores, all three of the magazines rated EXCELLENT (*Parents*, *Good Housekeeping*, and *Cooking Light*) were significantly better than any of the magazines that scored in the FAIR range

Table 2. RANKING OF MAGAZINES BY OVERALL MEAN RATINGS AND SUBCATEGORY RATINGS

Rank	Overall	Accuracy	Presentation	Recommenda- tions
1	Parents ^a	Cooking Light ^e	Consumer Reports ^g	Parentsi
2	Cooking Light ^a	Parents ^e	Parents ^g	Good Housekeeping ^j
3	Good	Good	Good	Consumer
	Housekeeping ^a	Housekeeping ^f	<i>Housekeeping^g</i>	Reports ^k
4	Consumer	Consumer	Cooking	Cooking
	$Reports^b$	$Reports^f$	Lightg	$Light^l$
5	$Self^c$	Self	$Self^h$	Selfl
6	$Shape^c$	Shape	$Shape^h$	Woman's Day ^l
7	$Health^d$	Men's Health	Glamour ⁱ	Shape ^l
8	Woman's Day	Health	Health ⁱ	Runner's World ^l
9	Glamour	Reader's Digest	Better Homes and Gardens ⁱ	Glamour ^l
10	Better Homes and Gardens	Woman's Day	Woman's Day ⁱ	$Health^l$
11	Reader's Digest	Glamour	Runner's World	Better Homes and Gardens ^m
12	Men's Health	Fitness	Reader's Digest	Reader's Digest
13	Runner's World	Ladies'Home Journal	Men's Health	Men's Health
14	Ladies'Home Journal	Better Homes and Gardens	Ladies'Home Journal	Redbook
15	Cosmopolitan	Cosmopolitan	Mademoiselle	Cosmopolitan
16	Fitness	Redbook	Fitness	Ladies'Home Journal
17	Redbook	Mademoiselle	Cosmopolitan	Fitness
18	Mademoiselle	Muscle & Fitness	Redbook	Mademoiselle
19	Muscle & Fitness	Runner's World	Muscle & Fitness	Prevention
20	Prevention	Prevention	Prevention	Muscle & Fitness

^a Significantly better than Cosmopolitan, Fitness, Redbook, Mademoiselle, Muscle & Fitness, and Prevention.

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^b Significantly better than *Redbook, Mademoiselle, Muscle & Fitness*, and *Prevention*.

^c Significantly better than *Muscle & Fitness* and *Prevention*.

^d Significantly better than *Prevention*.

^e Significantly better in this category than Cosmopolitan, Redbook, Mademoiselle, Muscle &

- Fitness, Runner's World, and Prevention.
- f Significantly better in this category than Runner's World and Prevention.
- g Significantly better in this category than Cosmopolitan, Redbook, Muscle & Fitness, and Prevention.
- ^h Significantly better in this category than *Muscle & Fitness* and *Prevention*.
- i Significantly better in this category than *Prevention*.
- j Significantly better in this category than Fitness, Mademoiselle, Prevention, and Muscle & Fitness.
- ^k Significantly better in this category than *Mademoiselle*, *Prevention*, and *Muscle & Fitness*.
- ¹ Significantly better in this category than *Prevention* and *Muscle & Fitness*.
- ^m Significantly better in this category than *Muscle & Fitness*.

(Cosmopolitan, Redbook, Fitness, Mademoiselle, Muscle & Fitness, and Prevention). Some statistically significant differences were also found when the best magazines in the GOOD range (such as Consumer Reports, Self, and Shape) were compared with the lowest-rated FAIR magazines (such as Muscle & Fitness and Prevention). However, none of the differences among magazines within a rating group (EXCELLENT, GOOD, or FAIR) were statistically significant. The subcategory scores showed similar patterns. Although the highest-rated magazines in each subcategory were significantly better than the lowest-rated ones, differences among magazines that were close to one another in the list were not statistically significant. In practical terms, this means that you can consider the magazines that we rated EXCELLENT to be much better sources of nutrition information than those rated FAIR, but you should not place too much importance on small differences in scores. A magazine that earned an overall score of 86% is not necessarily a higher-quality source of nutrition information than one that scored 84%, and the magazine that scored seventh-highest in one of the subcategory rankings is not necessarily better in that aspect of quality than the one that scored ninth-highest.

Magazines Rated EXCELLENT (100%-90%)

<u>Parents</u> (#1 in our survey). Parents, the highest ranked magazine in our survey (91%), gives its readers a trustworthy combination of sound science and common sense. In addition to ranking highest in our overall scoring, Parents also earned the highest score in the "recommendations" subcategory. This means that ACSH's judges consistently found that the advice given in Parents was practical, well-supported by the information

presented, and consistent with accepted nutritional principles. It's clear to us that *Parents*' editors take their responsibility to their readers very seriously.

In ACSH's last survey of nutrition reporting in popular magazines, conducted in 1995–96, *Parents* earned a score of 88%. The difference between *Parents*' current and previous scores is not statistically significant, according to study statistician Dr. Jerome Lee.

Several articles in *Parents* did a fine job of helping readers distinguish nutrition facts from fallacies. "Myths About Candy" (July 1997) pointed out, correctly, that scientific research does not support the notion that eating sweets will cause children to become "wired." The August 1999 article "6 New Reasons to Get More Calcium" noted that lactose-intolerant individuals may not need to "write off" dairy products completely. "Why Are We Getting Fatter?" (Oct 1998) made the important point that low-fat and fat-free foods are not necessarily low in calories. "Eating for Two" (Nov 1997) was devoted entirely to clarifications of common misconceptions about nutrition during pregnancy.

ACSH's judges were particularly impressed with the December 1999 *Parents* article "Herbal Remedies: Are They Safe for Your Child?" The article acknowledged the popularity of herbal dietary supplements and pointed out that some may indeed be effective for their intended purposes, but it gave parents strong warnings about the serious hazards associated with the use of herbal remedies, especially in children. Dr. Irene Berman-Levine singled out this article for doing a "great job with a difficult topic." Dr. Ruth Kava noted that this article included "important warnings that every parent should read."

<u>Cooking Light</u> (tied for #2). Cooking Light, which scored in the GOOD range in the last two ACSH magazine surveys, was rated EXCEL-LENT (90%) this time around. The improvement in Cooking Light's score was statistically significant. In Dr. Lee's subcategory analyses, Cooking Light was the top scorer in the "accuracy" subcategory. This means that ACSH's judges found that Cooking Light did an outstanding job of presenting scientifically accurate information and documenting the sources of that information appropriately.

Although the magazine's name seems to suggest a narrow focus of interest, *Cooking Light* includes articles on a wide variety of nutrition topics. For example, readers of this magazine could learn practically everything they ever wanted to know about water in "Bottle or Tap?" (July/Aug 1999), get some tips on healthful food choices at the mall in "Faring Well at the Food Court" (Dec 1998), find out about the salt controversy in "Salty

Reasoning" (Nov/Dec 1997), and get an update on iron research in "Ironic Conclusions" (Mar 1998). All four of these articles earned high ratings from ACSH's judges, although one judge felt that the iron article was "perhaps a little too scary" in its discussion of the health threat of iron overload.

Good Housekeeping (tied for #2). The only magazine that received an EXCELLENT rating in both the 1995–96 and 1997–99 ACSH surveys was Good Housekeeping, which earned a 90% score each time. In the current evaluation, ACSH's judges were particularly impressed with the October 1998 article "Are Herbal Foods for Real?" According to judge Irene Berman-Levine, this article "deserved an A+ for investigative reporting." Another article that earned high praise from the judges was "Children's Diets: What's Good, What's Bad—and What's Missing" (Oct 1998), which presented a balanced view of recent changes in the eating habits of American children. ACSH's judges did have some reservations, however, about "Cut Your Cancer Risk by 40 Percent" (Aug 1999). Although the article served its readers well by emphasizing the importance of abstinence from tobacco, some of the other cancer-fighting strategies suggested in the article were not as well substantiated, according to judge Manfred Kroger.

Magazines Rated GOOD (89%–80%)

<u>Consumer Reports</u> (#4). Consumer Reports, which earned an EXCELLENT rating in ACSH's 1992–94 and 1995–96 surveys, earned a GOOD rating (89%) in the current evaluation. The difference between this magazine's score in 1995–96 (95%) and its current score was statistically significant; thus, it is likely that the nutrition articles published in *Consumer Reports* in 1995–96 were truly of higher quality than those published in 1997–99.

Consumer Reports scored higher than any other magazine in the survey in the "presentation" subcategory. This means that ACSH's judges found that Consumer Reports had done an outstanding job of presenting information objectively, drawing logical conclusions, and writing appropriate headlines.

Perhaps the greatest strength of *Consumer Reports* is the ability of its writers to explain complex scientific topics clearly. One particularly successful example of this was the May 1999 article "Hypertension: What Works?" Besides providing a good review of both the pharmacological and

the non-pharmacological treatments for hypertension, the article also explained that research findings cannot always be taken as the final answer to a scientific question, and it gave illustrations of how weaknesses in study design can affect the interpretation of a study's results.

Another article that explained a complex subject thoroughly was "Coffee Clutch. Should You Worry about All that Caffeine" (Dec 1997). ACSH's judges felt, however, that this particular article was weakened by the authors' failure to document the sources of much of their information.

<u>Self (#5).</u> The highest-scoring magazine in the "women's" category was *Self*, which earned a GOOD rating of 87%. This represents a substantial and statistically significant improvement over this magazine's 1995–96 score of 77%.

The well-balanced, carefully researched *Self* article "To Drink Or Not To Drink..." (May 1997) did an outstanding job with a very complex topic—the risks and benefits of alcohol consumption for women. Some other *Self* articles, however, seemed to be too short to cover their topics adequately. For example, the September 1998 article "Herbal Junk Food" did a good job of explaining that people would have to eat enormous (and fattening!) amounts of herb-laced snack foods in order to obtain a therapeutic dose of an herb. However, the article would have been improved if the author had also mentioned that the safety and efficacy of many herbal ingredients has not been established.

Shape (#6). Shape magazine earned a GOOD rating of 86% and was the highest-rated magazine in the "health" category. In 1995–96, Shape earned a score of 81%; the difference between that score and the present one is statistically significant, indicating that there has probably been a true improvement in the quality of the nutrition articles published in this magazine.

One particularly good *Shape* article, "How Healthy Is Your Diet?" (Sept 1997), used an interesting question-and-answer approach to help readers figure out whether a lack of variety might be limiting the nutrient content of their diets. On the other hand, several factual errors weakened the March 1998 article "The Heart Beat," which discussed homocysteine as a risk factor for heart disease. Contrary to the author's statements, homocysteine is not needed to make body protein and does not come from foods.

<u>Glamour</u> (tied for #7). Glamour magazine has consistently scored in the GOOD range in past ACSH surveys, and it did so this time. But this

magazine's current score of 84% was significantly lower than its 1995–96 score of 89%.

ACSH's judges were impressed with several *Glamour* articles. Dr. Irene Berman-Levine called "Can You Eat Your Way to a Better Mood?" (Nov 1998) "one of the best articles I have seen on food and mood." Dr. Ruth Kava praised "Chicken. The Myths, the Facts, the Risks, the Health Benefits" (July 1999) for presenting "accurate and important information about handling and storing raw chicken." Several *Glamour* articles lost points, however, for failing to document their information sources. Vague attributions such as "many scientists believe" and "recent research suggests" appear too often in *Glamour*; readers would be better served by more specific references to identifiable studies or experts.

<u>Health</u> (tied for #7). Health magazine, which was rated GOOD in 1995–96, scored in the GOOD range again in the current survey, with a rating of 84%. The small difference between *Health*'s scores for the two time periods was not statistically significant.

Health tackles sophisticated topics, and it often handles them well. ACSH's judges were particularly impressed with "Eat to Fight Cancer" (Jan/Feb 1997)—a thorough and interesting look at the role of fruits and vegetables in cancer prevention. "A Woman's Guide to Minerals" (Oct 1998), however, did not fare quite as well. This article overemphasized mineral supplements while giving little information about food sources of minerals, according to judge Ruth Kava, and it failed to warn readers to check with their doctors before taking high-dose potassium supplements.

<u>Woman's Day</u> (tied for #7.) Woman's Day scored in the GOOD range in the last three ACSH surveys, and it did so again this time, with a score of 84%. The difference between this magazine's current score and its score in 1995–96 is not statistically significant.

Nutrition articles in *Woman's Day* usually focus on giving readers practical, specific advice on how to improve their eating habits. Sometimes this approach can be very successful. For example, "How to Eat Right the Easy Way" (Aug 31, 1999) started out by identifying five nutrients that may be in short supply in women's diets and then gave specific suggestions on how to get more of each nutrient when eating at home, in restaurants, and "on the run." The article provided plenty of useful suggestions that readers could easily apply to their own lives. In other articles, though, such as "22 Heart Smart Foods" (Sept 1, 1999), "Wonder Foods for Women" (May 13, 1999), and "Power Foods" (Sept 1, 1998), *Woman's Day*'s penchant for practicality took the form of lists of "super foods"—an approach that has

significant drawbacks. Lists of this sort can mislead people into thinking that specific food choices are more important than the overall quality of an individual's diet. *Woman's Day* also lost points because an article that encouraged the use of a variety of vitamin supplements, "Vitamin Power" (Oct 1998), failed to warn that excessive doses of some vitamins can be toxic.

Better Homes & Gardens (tied for #10). Better Homes & Gardens has slipped a bit; this magazine scored in the EXCELLENT range in two previous ACSH surveys, but it dropped into the GOOD range this time, with a score of 83%. The difference between this magazine's current score and its 1995–96 score is statistically significant.

ACSH's judges gave high marks to the *Better Homes & Gardens* article "Complex Carbohydrates: They're the Best Thing Since Sliced Bread" (May 1997), which used sound science and a bit of humor to draw attention to the "Rodney Dangerfield of the nutrition world"—grain foods. The judges were not as pleased, however, with "Foods with 'Phyte'" (Feb 1997) which, in the words of judge Ruth Kava, was "overly accepting of the role of phytochemicals in disease prevention." We also noted a disturbing pattern in several *Better Homes & Gardens* articles, including "Easing the Pressure: A Fruit and Veggie Fix for Hypertension" (May 1998), "Managing Menopause with Diet" (Mar 1997), and "Migraines: The Nutrition Connection" (Aug 1997). Although each of these articles adequately described the role of diet in the management of a specific medical condition, none acknowledged that many patients may require drug therapy—in addition to or instead of non-pharmacological methods—in order to manage these conditions adequately.

<u>Reader's Digest (tied for #10).</u> Reader's Digest scored in the GOOD range, at 83%. This magazine had also rated GOOD in several previous ACSH surveys. There was no statistically significant difference between Reader's Digest's current score and its 1995–96 score.

ACSH's judges were impressed with two weight-control articles in *Reader's Digest*—"Fat to Firm in Five Weeks" (Jan 1997) and "Stay Slim for the Holidays" (Nov 1998). These articles emphasized that both food intake and exercise are important in weight control, and the authors gave their readers sound, practical advice. Several other *Reader's Digest* articles did not score as high, however. "Attack of the Food Police" (Mar 1997), an extremely negative investigative report on the Center for Science in the Public Interest and its actions with regard to olestra, lost points for a lack of objectivity. "Control Your Hunger Pangs and Lose Weight" (June 1997) lost points because the implications of some of the research cited in the article

were overstated. Also, several articles, such as "The Hunger-Proof Diet" (Jan 1999) and "Safe Ways to Lose Ten Pounds Fast" (June 1999), lost points because their titles promised more than the articles could deliver.

<u>Men's Health</u> (tied for #12). Men's Health scored in the GOOD range in both the current survey, where it earned an 82%, and in the previous one. The difference between the two scores was not statistically significant.

Reading this magazine is fun—even if you're not a man. The articles in *Men's Health* are remarkably hip and clever. Some of them are also very informative. ACSH's judges particularly liked "Urban Food Myths" (June 1999), which did a "nice job sorting out facts from fiction," according to judge Ruth Kava. Another outstanding *Men's Health* article was "The Great White Hype" (Nov 1997), a fascinating investigative report on the rise and fall of shark cartilage. Other articles, however, such as "Food for What Ails You" (Nov 1997), "Foods that Feed your Muscles" (July 1997) and "The Anti-flu Diet" (Dec 1999), lost points for going beyond the scientific evidence and overgeneralizing the results of single studies.

The subcategory rankings for *Men's Health* showed an interesting pattern. This magazine ranked 13th out of 20 for both "presentation" and "recommendations," but ranked much higher (7th out of 20) for "accuracy." The writers for this magazine do their research well, but they sometimes fall short when it comes to interpreting scientific findings for their readers.

Runner's World (tied for #12). Runner's World scored in the GOOD range in ACSH's 1995–96 survey and again this time, earning a score of 82% in both evaluations. This specialized magazine's readers want detailed nutrition information—and Runner's World provides it. Our judges particularly liked "Greens Know-How: Vegetables and Diet for Runners" (May 1998) and "Make Room for Fish" (Oct 1999); both articles provided extensive, useful information about the nutritional merits of a particular category of foods.

Runner's World falls short, however, when it comes to documenting the sources of its information. In many instances, readers are given absolutely no idea where the "facts" in an article come from—thus, it's impossible for them to assess the credibility of the information.

Dr. Irene Berman-Levine also noted that one *Runner's World* article, "Foods You Can Use" (July 1999), misled readers by giving exact calorie values for foods that obviously vary in size. (We doubt that every plain bagel in the world provides exactly 197 calories.) It would have been better to round off the numbers and to point out that calorie counts vary with serving size.

In Dr. Lee's subcategory analyses, *Runner's World* received a much lower ranking (19th out of 20) for "accuracy" than for "presentation" (11th) or "recommendations" (8th). The low "accuracy" rating reflects the very poor documentation of sources by this magazine.

<u>Ladies' Home Journal</u> (#14). Ladies'Home Journal publishes fewer articles on nutrition than many of the other major women's magazines do. For this reason, it was not included in ACSH's surveys in 1992–94 or 1995–96. This time, however, we were able to identify enough nutrition articles in this magazine to allow it to be evaluated. Ladies'Home Journal earned a GOOD rating, with a score of 80%.

Our judges were impressed with the August 1998 article "Eating for a Healthy Heart," a well-balanced, well-referenced (and interesting!) explanation of the cardiovascular effects of folic acid, omega-3 fatty acids, vitamin E, and other food components. Other articles in *Ladies'Home Journal*, however, were not so scientifically sound. "Peak Performance Meals" (Mar 1998) overstated the effects of specific foods and single meals on alertness and energy. The November 1997 article "20 Natural Remedies that Really Work" made several poorly substantiated recommendations for medical uses of foods and herbs. This article also endorsed the use of a diuretic as a weight-loss aid—a very unsound piece of advice.

Magazines Rated FAIR (79%–70%)

<u>Cosmopolitan (#15).</u> We see a welcome trend toward improvement in the nutrition coverage provided by *Cosmopolitan*. This magazine's score increased from 69% in 1992–94 to 74% in 1995–96, and it improved still further in the current survey, to a FAIR score of 79%. The changes that occurred in both of these time periods were statistically significant. Although there is still room for further improvement, *Cosmopolitan* seems to be heading in the right direction.

In the current survey, *Cosmopolitan's* best articles were as reliable and informative as those in our top-rated magazines. For example, "The Calcium Challenge" (Jan 1997) gave readers solid information about the health benefits and food sources of calcium. Other articles, however, were marred by major scientific distortions. "Wish You Had Lots More Energy?" (Aug 1999) grossly exaggerated the diuretic effect of caffeine. "Diet Special: At Last! Cosmo's 1998 'No Willpower Required' Diet" (Jan 1998) presented a very unbalanced weight-loss diet based on the questionable

premise that maintaining even blood sugar levels is the key to weight control. "Eat This! Healthful Foods" (Feb 1998) gave readers an exaggerated view of what specific foods can do to improve health. This article also included several unsupported claims (e.g., Japanese sea vegetables can build up frail and brittle fingernails) and outright errors (e.g., tryptophan, the "active ingredient" in honey, increases serotonin levels in your brain, making you feel relaxed; in actuality, honey is almost pure sugar and does not contain significant amounts of tryptophan or any other amino acid).

<u>Fitness</u> (tied for #16). Fitness was included in ACSH's survey for the first time in 1995–96. It ranked in the FAIR range in that evaluation and again this time, earning a score of 78%. The difference between this magazine's 1995–96 score and its current score is not statistically significant.

Very short nutrition articles are often very bad nutrition articles, but our judges noticed one short article in *Fitness* ("7 Signs that Your Diet Plan is Dangerous" (Aug 1999)) that covered its topic well in spite of its brevity. This article did a fine job of pointing out key characteristics of weight-loss diets that indicate that the diet is unbalanced or unhealthful (such as the complete absence of dairy products or the use of "broken record" menus based on only one or two foods).

Other Fitness articles, however, omitted important information that would have been helpful to readers. For example, the article "Fitness Investigates: Suppress Appetite Inhalers. Can a Scent Stop the Munchies?" (May 1998), consisted entirely of a humorous description of one woman's personal experience with a novel product that claims to suppress appetite. Nowhere in the article was there any mention of scientific data on the product's safety or efficacy or any suggestion that the existence (or nonexistence) of scientific data should play a role in an individual's decision about whether to try a product of this sort. Another Fitness article that omitted crucial information was "6 New Natural Cures" (Sept 1998), an article on alternative remedies for minor health problems such as sore muscles and heartburn. This article failed to warn that some of the products mentioned (such as licorice tea) can interact with medications. To its credit, the article did caution readers who are pregnant not to use herbs without consulting a doctor. However, for safety, the same precaution should also have been recommended for nursing mothers, children, elderly people, anyone with a chronic medical problem, and anyone who is taking a prescription or overthe-counter drug.

Redbook (tied for #16). Redbook, which scored in the GOOD range in two previous ACSH surveys, dropped to FAIR this time, with a score of 78%. Its current score is significantly lower than its previous score, indicating that there has likely been a real decrease in the quality of the nutrition articles published by this magazine.

Most of the Redbook articles reviewed by our judges were basically on the right track, but they lost points because of scientific errors or exaggerations. For instance, "Stop 4 p.m. Snack Attacks" (July 1999) offered some sensible tips on how to cope with the urge to eat between meals, but its claim that people shouldn't use artificial sweeteners because "sugar substitutes will keep your sugar thermostat on high, so you'll keep on craving sweets" is not based on sound science. The main point of "The Weight-Loss Trick the Experts Don't Tell You" (Nov 1999)—namely, that an overemphasis on reducing fat intake rather than reducing calorie intake can sabotage a weight-loss plan—was sound. However, the article's claim that the health benefits of a salad are "flushed down the toilet" if you use nonfat dressing was a ludicrous overstatement, and its explanation of the role of the enzyme lipoprotein lipase in fat metabolism was incorrect. "The New Power Foods" (Apr 1998) included some good nutrition tips for busy young women—such as making an effort to eat enough iron-rich foods and drink enough water. However, the article's claim that carrots can increase a woman's sexual drive and its warning that caffeine can decrease a woman's ability to enjoy sexual intercourse are not based on well-documented scientific evidence.

<u>Mademoiselle</u> (#18). <u>Mademoiselle</u> scored 77%, putting it into the FAIR range. This magazine also scored in the FAIR range in ACSH's 1995–96 survey. The difference between the two scores is not statistically significant.

Most *Mademoiselle* articles scored either very high or very low. One example of a very good article was "Stupid Diet Tricks" (Aug 1997). This article explained the scientific reasons why some popular weight-loss gimmicks, such as food combining, don't live up to the promises that have been made for them. Another article that scored high was "Start Your Engines!" (Mar 1999), which gave well-documented advice on the importance of breakfast.

Unfortunately, though, there were plenty of *Mademoiselle* articles at the opposite end of the quality spectrum. One was "Bread Alert!" (Oct 1999), in which the author seemed to be conducting an inexplicable crusade to scare people out of eating a nutritious staple food. The article's claim that the small amounts of *trans* fatty acids in the partially hydrogenated shortenings used in breadmaking are "downright dangerous" and a "deadly addi-

tion" to bread is a gross exaggeration, and the argument that people need to cut out bread in order to cut down on fatty spreads is unnecessarily extreme.

Another article that scored very low was "Eating for Energy" (Sept 1997). Although the dietary suggestions in this article ßwere reasonable, it's hard to imagine what the magazine's editors were thinking of when they asked a volunteer to try out a variety of supposedly energy-boosting dietary supplements of uncertain safety and efficacy. The editors even had this person try ephedra—despite the fact that *their own article* says ephedra has been linked to serious—sometimes fatal—side effects! Having a single individual try different herbs and describe their effects is not only risky, it's also "unscientific and misleading," according to judge Irene Berman-Levine. "Consumers should not be encouraged to do this," she cautioned.

<u>Muscle & Fitness (#19).</u> Muscle & Fitness scored in the FAIR range at 73%. It also earned a ranking of FAIR in our 1995–96 survey. The difference between the two scores is not statistically significant. In the subcategory analyses, *Muscle & Fitness* received the lowest score of any magazine in the survey for "recommendations."

Muscle & Fitness is written for bodybuilders who take their sport seriously. Some articles in this magazine include full references to papers in scientific journals (a wonderful idea!), and most articles focus on ways in which bodybuilders can take advantage of scientific discoveries in order to improve their success in their sport and/or their general health.

The problem with this approach is that not all of the research findings cited in *Muscle & Fitness* are truly ready for practical application. Sometimes, articles in this magazine make recommendations on the basis of a single preliminary study. The results of a single study may not, however, hold up under further investigation. In other instances, articles give advice based on studies conducted in test tubes, experimental animals, or special population groups that differ greatly from the magazine's readership. The results of such research may not be applicable to healthy athletes.

When *Muscle & Fitness* reports on topics that have been extensively researched, its articles are informative and useful. For example, the "Body by Betty" column titled "Calories Still Count" (Jan 1997)—which provided a good explanation of why low-fat doesn't necessarily mean low-calorie—earned high scores from our judges. So did an article on nutrition basics called "Perfect 10" (Feb 1999). Our judges did not think, however, that the evidence cited in "The Amino Files" (Mar 1998)—all of which was derived from studies conducted either in experimental animals or extremely sick people—justified the article's detailed recommendations on amino acid supplementation for athletes. Similarly, the judges did not think that the sin-

gle test tube study on glyconutrients described in "Body Building Science: Super Sugars" (May 1999) provided sufficient support for the article's near-endorsement of supplementation with these substances as soon as commercial products become available.

<u>Prevention (#20).</u> Prevention, the highest-circulation magazine in the "health" category, earned a FAIR score of 72% in ACSH's survey. In the subcategory analyses, this magazine ranked lowest in both "accuracy" and "presentation" and 19th out of 20 in "recommendations." In three previous ACSH surveys, *Prevention* had scored in the GOOD range. *Prevention's* current score is significantly lower than its 1995–96 score. Thus, it is likely that the quality of the nutrition articles published by this magazine has truly decreased in recent years.

Although *Prevention's* overall score was disappointing, this magazine does do some things very well. In particular, most *Prevention* articles clearly indicate the sources of the scientific information that they present. The writers at some other magazines often frustrate their readers by using vague references such as "research suggests" or "experts think." *Prevention's* writers, however, almost always explain who performed the research that they're describing, and they identify their experts by name and affiliation. For example, the article "Ease Exercise-Related Pains with Arginine" (Dec 1999) clearly indicated that the research it was describing was that of Dr. John Cooke of Stanford University. "Design Your Own Healing Diet" (Dec 1998) went even further, indicating (by journal name and publication date) exactly where readers could find the full-length scientific reports on the various nutrient-disease links mentioned in the article. This kind of specificity is extremely helpful to readers who want to pursue a subject in greater depth.

Prevention's main weakness, in the view of ACSH's judges, is that many of its articles overextrapolate and overgeneralize preliminary research results. For example, the article on arginine encouraged readers with peripheral artery disease or heart disease to try this supplement even though the evidence for its effectiveness seems to be based on only two studies. The previously mentioned article "Design Your Own Healing Diet" presented preliminary, unreplicated research results in a way that made them seem equivalent to the well-established nutrition principles that have been incorporated into the Dietary Guidelines for Americans. "Eat More, Age Less!" (Sept 1999) presented good menus and sound nutritional advice, but its claim that eating foods high in antioxidants will "reset your aging clock" is a gross exaggeration of the scientific evidence.

Another problem with some Prevention articles, such as

"Consumer's Guide to Supplements" (April 1998) and "Prevention's At-A-Glance Vitamin and Mineral Guide: Type and Amount of Supplements to Use for Optimum Health" (Feb 1997), is that they give generalized recommendations on dietary supplementation for everyone. However, "it is dangerous to provide blanket supplementation recommendations without more disclaimers," according to judge Irene Berman-Levine. Types and doses of supplements that may be safe and beneficial for some individuals could be useless or harmful for others.

How the Magazines Stacked Up by Target Audience

Our statistical analysis indicated that, overall, the quality of nutrition articles in magazines in the "consumer" and "homemaking" category was better than that of articles in "women's" or "health" magazines. However, the scores of magazines within each category varied substantially. See Table 3 for a summary of general comments based on the judges' reactions to articles in each magazine.

ACSH's Conclusions—and Our Advice to Magazine Readers

The quality of nutrition reporting in popular magazines is much better than it used to be. In the surveys that ACSH conducted during the 1980s and early 1990s, our judges saw many articles that featured outlandish claims, unsound diet plans, and gross misinterpretations of scientific research. By the late 1990s, however, irresponsible articles had become the exception rather than the rule. Most of the nutrition articles published in top-circulation magazines today are based on real science, interpreted in reasonable ways, and most of the advice given in magazine articles is sensible and practical. Readers may even find magazine articles that debunk the silly diets or unsubstantiated claims that the magazines of the '80s might have endorsed!

Nevertheless, it still pays to be cautious. Not everything that appears in print is scientifically sound or even safe. Moreover, even if every fact mentioned in a magazine article is correct, it's impossible to cover some topics adequately in 500, 1000, or even 2000 words. You can't expect a short magazine article to provide every detail that you might need in order

Table 3. GENERAL COMMENTS

Magazine (listed by target audience group)	Comments
Consumer	
Parents	Excellent, practical advice based on sound science and common sense. Highest-rated magazine in the survey.
Consumer Reports	Informative and reliable. Explains complex scientific issues well. However, this magazine scored higher in previous surveys than in this one.
Reader's Digest	Good articles on weight control, but titles of some articles promised more than the articles could deliver.
Home	
Cooking Light	Well-researched articles on a variety of food and nutrition topics, not just on "cooking light."
Good Housekeeping	Consistently accurate; the only magazine to earn an "excellent" rating in both the current and 1995–96 surveys.
Better Homes and	Some articles are informative, but others tend to over-
Gardens	state the value of specific food components or dietary therapies.
Health	
Shape	Most articles are interesting and informative, but a few are marred by scientific inaccuracies.
Health	Tackles sophisticated topics and usually—but not quite always—handles them well.
Men's Health	Proves that nutrition need not be stodgy, but some articles overgeneralize preliminary scientific evidence.
Runner's World	Provides useful information for its specialized audience, but needs to do a much better job of documenting its information sources.
Fitness	Articles vary in quality. Some articles omit important information, such as safety precautions regarding dietary supplements.
Muscle & Fitness	Outstanding documentation of sources. However, some articles greatly overextrapolate preliminary research findings.
Prevention	Documents sources well, but overextrapolates scientific findings and gives questionable supplementation recommendations. This magazine's score was 14 percentage points lower in the current survey than in 1995–96.

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Women's	
Self	Long articles are accurate and well-documented, but some shorter articles omit key information. Big improvement since 1995–96.
Glamour	Accurate, well-written articles, but information sources are not always documented adequately.
Woman's Day	Practical, action-oriented articles, but lists of "wonder foods" perpetuate the misconception that individual foods are more important than the overall diet.
Ladies'Home Journal	Some articles are based on sound scientific evidence, but others include questionable advice.
Cosmopolitan	Has improved substantially in recent years, but still publishes some articles that include inaccurate or distorted scientific information.
Redbook	The basic concepts behind most articles are sound, but errors and unsound advice lower the articles' quality.
Mademoiselle	Articles tended to be either very good or very poor. For one article, a volunteer was asked to try several dietary supplements of uncertain safety—an irresponsible and unscientific type of "research."

to make well-informed health decisions.

Before you adopt any new dietary practices advocated in magazine articles, it's a good idea to do the following:

- Consider the source. If the magazine earned an EXCELLENT rating in our survey, you can view its advice with more confidence than you would if it had only earned a FAIR rating. Also, consider the sources cited within the article. You can be more confident in recommendations that come from highly respected sources such as the American Dietetic Association, the American Heart Association, or the Food and Drug Administration than you can in recommendations made by a single individual (even if that individual did write a diet book!).
- Familiarize yourself with the basics of nutrition. A good place to start is with the federal government's Dietary Guidelines for Americans, which are published in a very informative, readable 40-page booklet. You can order a copy from the Federal Consumer Information Center (call toll-free 888-878-3256) or read it online at http://www.usda.gov/cnpp/ DietGd.pdf>. Once you know the basics, you'll find it easier to distinguish well-accepted ideas from outlandish ones.

- Watch out for "junk science." The Food and Nutrition Science Alliance
 (a coalition of organizations of food and nutrition professionals and scientists) recommends that people look out for the following "red flags"
 that suggest that the supposedly scientific information you're reading
 may be "junk."
 - 1) Recommendations that promise a quick fix
 - 2) Dire warnings of danger from a single product or regimen
 - 3) Claims that sound too good to be true
 - 4) Simplistic conclusions drawn from a complex study
 - 5) Recommendations based on a single study
 - 6) Dramatic statements that are refuted by reputable scientific organizations
 - 7) Lists of "good" and "bad" foods
 - 8) Recommendations made to help sell a product
 - 9) Recommendations based on studies published without peer review
 - 10) Recommendations that ignore differences among individuals or groups.
- when it comes to dietary supplements, be *extremely* cautious. Dietary supplements need not be proven safe or effective before they are sold. Their quality may also be questionable; some products don't contain the types and amounts of ingredients stated on the label, and others may be contaminated with unwanted substances. Some dietary supplements may have harmful side effects, and some may interact with medications. Even vitamins and minerals can be toxic if taken in excessive amounts. Before taking any supplement (other than vitamins and minerals at doses of no more than 100% of the Daily Value), it's a good idea to check it out with your health care provider. This precaution is especially crucial for pregnant women, nursing mothers, elderly people, people under the age of 18, anyone who has a chronic medical condition, and anyone who is taking any prescription or over-the-counter medication.
- Don't make major changes in your eating habits on the basis of a single magazine article. Do some further research. Nutrition facts can be validated by consulting any of a number of textbooks available at college bookstores and libraries. Unlike the information in some best-selling nutrition books, the information in nutrition textbooks designed for classroom use is usually scientifically sound. You can also research nutrition topics online. But don't just enter your topic into a search engine. Nutrition misinformation abounds on the Internet, and your

search will probably turn up plenty of it. Instead, go to a web site that you respect, and search that site's collection of articles and links. Here are a few useful and highly respected web sites that you might want to try:

- www.webmd.com (a major health web site that features nutrition information supplied by the American Dietetic Association)
 www.drkoop.com (another major health web site; this one features material supplied by ACSH)
- <u>www.mayoclinic.com</u> (an extensive and ever-growing collection of health articles from the Mayo Clinic)
- www.nlm.nih.gov/medlineplus (a consumer health information site sponsored by the National Institutes of Health; it includes separate pages on nutrition, weight loss/dieting, and herbal medicine, among many other topics)
- <u>www.nutrition.gov</u> (a site from which consumers can access any governmental information on nutrition and nutrition-related topics)
- <u>www.navigator.tufts.edu</u> (a guide to nutrition web sites, with ratings of each site's accuracy and usefulness; sponsored by Tufts University)
- www.eatright.org (the American Dietetic Association's web site)www.dietitians.ca (lots of fact sheets, FAQs, and interactive features on nutrition topics produced by the Dietitians of Canada)
- <u>www.quackwatch.com</u> (a large, frequently updated collection of articles on health frauds, quackery, and health-related decision-making)
- www.healthandage.com/DrIrene (a source for a free, accurate, weekly nutrition newsletter with no commercial bias)
 www.fda.gov (the web site of the Food and Drug Administration)
 www.usda.gov (the web site of the U.S. Department of Agriculture)
 www.acsh.org (ACSH's web site; please visit us often!)

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