

Guidelines for Communicating the Emerging Science of Dietary Components for Health

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Introduction

Functional Foods? Bioactives? The Promise, the Reality, and the Confusion.

Consumers' appetites for food and nutrition news seem nearly insatiable. That is not surprising in light of unprecedented developments in the nutrition research world. In recent years, scientific evidence has revealed that bioactive dietary components may benefit health in ways that extend beyond meeting basic nutritional needs. Some components, when consumed often enough and in sufficient amounts, may help reduce the risk for developing chronic diseases such as heart disease, cancer, diabetes, or obesity. In addition, scientists are equipped with new knowledge and technologies to better identify functional dietary components and evaluate their potential health effects, as well as understand the genetic variances in nutritional needs.

The emerging science surrounding how whole foods, food components, and dietary supplements may promote health and reduce disease risk is exciting. Yet, dietary recommendations from established scientific authorities change little over time due to the need to build a strong body of evidence. This contrast presents new challenges to journalists, health professionals, and other communicators who strive to responsibly relay new findings to the public amid established dietary guidance in our time-crunched world.

Communicating Emerging Science

The exciting research into the health effects of individual dietary components is indeed creating a fountain of knowledge that flows fast enough to keep the most motivated journalist or health professional on his or her toes. These professionals, after all, are tasked with understanding and translating scientific findings into layman's terms for the public from day to day. More broadly, some of the challenges they face are inherent to all science communication (Harvard School of Public Health and IFIC Foundation, *Improving Public Understanding: Guidelines for Communicating Emerging Science on Nutrition, Food Safety, and Health, 1998*, <http://www.afic.org/ImprovingPublicUnderstandingGuidelines.htm>). Communicators are challenged to:

- Convey emerging science on a continuum, based on the strength of the overall evidence, as opposed to isolated studies.
- Communicate the latest scientific findings with balance, while recognizing, but not overstating, differences of opinion.
- Provide context when new or emerging scientific evidence adds to and supports the body of research currently available or when the emerging science contradicts previous research, questioning established dietary guidance.

- Educate the public about a new area of research or technology, including complex terminology, before related nutrition information is likely to be understood.

Communicating the Health Functions of Foods & Dietary Supplements

Unique to an area of nutrition, dietary components for health, referred to commonly as “functional foods” or “bioactives for health,” are the following challenges:

- Empowering consumers to view beneficial dietary components as one part of a healthful diet and lifestyle rather than as “magic bullets.”
- Balancing increased consumption of beneficial components within the proper caloric intake necessary to maintain a healthful weight.
- Communicating which segments of the population would likely benefit from increased or decreased consumption of a given component.

Communications about dietary components for health promotion hold promise to profoundly affect public knowledge, behavior, and well-being. Communicators have the opportunity to bridge the gap between science and the consumer by utilizing guidelines for translating research findings into understandable and actionable messages for consumers.

Rolling Up Our Sleeves

To assist this process, IFIC Foundation partnered with journalism and nutrition professionals at Purdue University, University of Illinois, Urbana-Champaign, and University of Missouri, Columbia to develop *Guidelines for Communicating the Emerging Science of Dietary Components for Health*.

An Advisory Committee was convened to identify challenges and formulate solutions to address the communication issues specific to dietary components. The work of the Advisory Committee was vetted through two meetings of a Stakeholder Dialogue, including representatives from the media, health professions, academia, food and commodity industries, scientific societies, consumer advocates, and government.

The product of their work is dynamic, and is therefore published online to facilitate incorporation of input from stakeholders over time. As the science continues to emerge, so will the communications strategy continue to evolve.

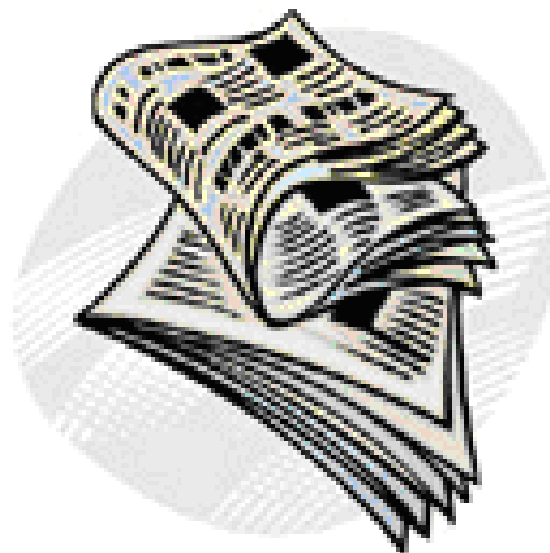
How should the *Guidelines* be used?

The *Guidelines* are designed to address the challenges listed above and stimulate reflection among all stakeholders, leading to accurate and effective

communications. Individualization is the key not only in nutrition advice, but also in nutrition communications. Therefore, not all guidelines will apply in all situations, but each will apply in some. The journalist may find the guideline, “Communicate with accuracy and balance,” particularly relevant to composing a newspaper article, while “Consider peer review status” is one key to establishing credibility of information. The health professional, on the other hand, will play a more prominent role in implementing the guideline, “Put new findings into the context needed for an individual to make dietary decisions.”

And this set of tools can serve as a bridge between the communicators using them—between journalists and research scientists, or health professionals and government officials. For example, a journalist may find that the *Guidelines* serve as a checklist in interviews with research scientists. By facilitating recognition of the value of information each communicator can provide, an understanding of each one’s limitations, and respect for the diverse communication styles of each, application of the *Guidelines* will allow a more understandable and consistent message to reach the consumer.

We hope you will refer to the *Guidelines* often while promoting consumer understanding of the exciting and emerging science of dietary components for health promotion.



Guidelines for Communicating the Emerging Science of Dietary Components for Health

1. Enhance public understanding of foods, food components, and/or dietary supplements and their role in a healthful lifestyle.

- Do you provide enough information to help the public understand new findings and decide whether or not the findings warrant a change in eating habits?
- Do you emphasize that dietary components are not “magic bullets” that work alone, but must be consumed as part of a balanced, healthful diet? Further, do you indicate that diet is just one important aspect of a healthful lifestyle?
- Do you relay the concept of “caloric displacement?” When a dietary component is added or increased in the diet, other food intake may need to decrease to achieve energy or caloric balance.
- Do you emphasize that there is no “one-size-fits-all” diet and that, when necessary, a qualified health professional such as a medical doctor or registered dietitian can help individualize a diet?
- Do you provide credible national, state, and/or local resources where consumers can locate assistance or more information?

In Summary: *Serve up plain talk about food and health. Advise consumers that dietary components are not magic bullets that work alone, but may promote good health when included as part of a healthful diet and lifestyle.*

2. Clearly convey the differences between emerging and consensus science.

- Do you explain whether research results add incremental knowledge to or conflict with the existing body of evidence? Do you suggest what further research may be needed?
- Do you point out both similarities and differences between study findings and established dietary guidance?
- Do you convey the “state of the science” by describing where a single study falls on a continuum between newly emerging findings and scientific consensus?
- Do you communicate that scientific information is evolutionary, not revolutionary?

In Summary: *Scientific research is evolutionary, not revolutionary. Tell consumers where new findings fall on the research continuum and within the overall body of evidence.*

3. Communicate with accuracy and balance.

- Do you accurately report the study’s overall conclusions and avoid highlighting selected findings that may present a misleading picture? Also, consider avoiding misleading terms such as “scientific breakthrough” or “medical miracle?”
- If new findings conflict with established dietary recommendations, do you provide an accurate and balanced assessment of the science for both?
- Do you establish the credibility of your primary sources of information? Do you disclose whether or not resources represent mainstream scientific thinking on the issue?
- Do you seek additional expert opinions about research findings? Do you clearly distinguish between scientific evidence and opinion?
- Do you acknowledge the potentially differing views and opinions of your resources? If only one or two sources express views in opposition to the consensus, is the emphasis you give these minority opinions appropriate?

In Summary: *Carefully craft your communications. Advise a healthy skepticism for potentially misleading headlines, such as “medical miracle” or “scientific breakthrough.” Suggest looking beyond dramatic language to get the full story. Explain that facts are facts, but experts may differ in opinion about how to interpret them. Present a complete picture of a study’s results, rather than select findings.*

4. Put new findings into the context needed for an individual to make dietary decisions.

- Do you make clear to whom the findings apply? Do you avoid generalizing the results of a study that looked at a specific population?
- Do you describe the risk/benefit trade-offs of consuming or not consuming certain foods, food components, or dietary supplements? Do you convey that risks/benefits may differ among individuals and populations?
- In explaining risk, do you distinguish between population-wide estimates and individual risk? Do you cite statistics on absolute risk (i.e., an

increase in incidence from one in a million to three in a million) and not just relative risk (three times the risk)?

- Do you differentiate between the concepts of statistical significance and clinical relevance? For example, while the study may have yielded statistically significant numerical results, the same results may not be achievable with “reasonable” intake of a particular component.
- Do you relate research findings into information consumers would find on a food label or in advertising?

In Summary: Make your messages meaningful. Translate the latest research into what is on the consumer’s dinner plate. Spell out to whom new findings apply and what impact, if any, the findings may have on eating habits.

5. Disclose all key details about a particular study.

- Do you provide information about the study’s original purpose, research design (including sample characteristics, length of study, and research questions addressed), and method of data collection and analysis?*
- Do you define scientific terms, such as hypothesis testing, control groups, randomization, and double-blind study?
- Do you indicate whether the dietary component studied was consumed as a whole food or dietary supplement?
- Do you indicate how much of and how often the dietary component was consumed to receive a beneficial effect? Do you provide examples of dietary sources of food components?
- Do you use appropriate terminology to describe the findings? For example, “cause and effect” refers to results from carefully controlled clinical studies, not to results from population studies (epidemiology). Also, “may” versus “will” reduce risk and “some” versus “all” people are appropriate references in health communications.
- Do you communicate whether the research controlled for effects of other dietary and lifestyle factors and how this might affect the results?
- Do you acknowledge any limitations or shortcomings of specific studies?

In Summary: Cite the study specifics. Discuss the research study design (such as characteristics of participants and quantity of food component consumed) to help the public understand the results and their validity.

*For more information on how to critically review scientific studies, see: <http://ific.org/publications/reviews/scientificir.cfm>

6. Consider peer review status.

- Was the research peer-reviewed by independent scientists or published in a peer-reviewed journal? Do you consider that although peer review is an important standard, it does not guarantee the findings are definitive or conclusive?
- If a study was not peer-reviewed (e.g., a paper presented at a meeting or convention), are the findings so compelling that the public should hear about them before the peer-review process?
- Do you distinguish between actual research findings and editorials or commentaries written about the research? Do you clarify that an editorial expresses personal views and is not always peer-reviewed?

In Summary: Point out the peer-review process as a key measure of a study’s credibility, although it is not the only key. Whether the study has been through the peer-review process is not a guarantee of conclusive results—it is one piece of a larger puzzle made up by the overall body of evidence.

7. Assess the objectivity of research.

- Are you reasonably confident of the study’s objectivity and independence?
- Are you certain that your communications do not overstate research findings?
- Do you disclose funding sources and consider what those funding the study stand to gain or lose from the study’s outcome?
- Do you consider and, if necessary, disclose who controls the publishing rights to research findings?
- Do you allow the validity of the science to speak for itself, regardless of the funding source?

In Summary: When assessing a study’s objectivity, consider the full facts—including not only disclosure of funding sources, but also the peer-review process, methodology, and conclusions.

Academic Partners

The International Food Information Council Foundation and the Institute of Food Technologists would like to recognize the partnership of faculty of the United States Department of Agriculture (USDA)/Initiative for Future Agriculture & Food Systems Research Program on Component Interactions for Functional Foods who provided time and expertise that has been instrumental in the development of these *Guidelines*:

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American Institute for Cancer Research
American Public Health Association
American Society of Clinical Nutrition
Center for Science in the Public Interest
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