We now have an improved full-color version of the nutrient density chart, showing serving sizes and calorie information as well as nutrition scores. It is available, with an accompanying brochure, for $2.95.

Annette Dickinson, Executive Director, Basic & Traditional Food Association, 1707 N Street NW, Washington, D.C. 20036.

Pennington Comments

The suggested use of the index nutrients for calculating nutrient density scores (JNE 11:119, 1979) should enhance the validity of this rating system. Such calculations are, in fact, already in progress. Some modified scores will be determined for a limited number of foods. One set of scores will be based on the eight nutrients currently used—protein, vitamin A, vitamin C, thiamin, riboflavin, niacin, calcium, and iron—plus folacin, vitamin B-6, vitamin B-12, pantothenic acid, magnesium, zinc, and fiber. A second set of scores will be calculated using only the index nutrients—vitamin A, vitamin B-6, folacin, pantothenic acid, iron, magnesium, and calcium. These modified scores may counteract the effects of enrichment and fortification and allow higher ratings for less processed foods.

I would like to point out that the ratings (one overall nutritional rating based on several nutrients) and the index nutrient system (ensuring the adequacy of a larger group of essential nutrients by ensuring the adequacy of seven key, essential nutrients) are two very different approaches to food selection. Both systems are valid for their specified purposes. The scoring system allows foods to be rated for overall nutritional content, but it does not guarantee the adequacy of the specific nutrients used in the rating scheme. Even if one selects only foods with high ratings, the daily adequacy of a specific nutrient such as iron cannot be ensured. The index nutrient system requires that seven nutrients be present in adequate amounts in the daily diet in order to gain adequacy of a larger group of essential nutrients. This system is based on the natural coexistence of nutrients and does not extend to fortified foods.


More on Nutrient Density

In a “Viewpoint” by A. Dickinson and W. T. Thompson entitled “Nutrient Density Scores” (JNE 11:119, 1979), analyses performed at Utah State University were referenced; therefore, we may appear to endorse their usage of INQ values. We wish to make it clear that we are not associated with either A. Dickinson or W. T. Thompson. The following clarifies our position.

For some time at Utah State University we have experimentally described foods and diets in terms of an Index of Nutritional Quality (INQ), a system based on nutrient density. Nutrient density of a food is a quotient calculated from the amount of nutrients in foods, individually or collectively, divided by the human allowance (RDA) for those same nutrients. When both values are expressed on a common energy basis (usually per 1,000 kcal), the energy term cancels out, and the simple quotient expresses the adequacy of a diet, when energy needs are met, to meet a standard of nutrient intake, such as the RDA. As we prefer to use the expression so derived and displayed graphically, the INQ suggests the ability of a food to contribute to the nutritional quality of a diet, or even a food supply. However, in our opinion, INQ values for individual foods have limited meaning outside of the context of a total meal or diet. To amplify this opinion and illustrate our own use of the system—when a given diet meets all RDAs except calories, the fat, sugar, or even protein sources could supply critical energy needs; hence a score derived from simply adding all INQ values could be misleading.

In order to use the system more fully and effectively for educational purposes, we have encouraged the Food and Nutrition Board to expand their list of recommended allowances and have further anticipated additional food composition data to become available from updating the USDA Food Composition Bank. The INQ system also has more meaning when all reference nutrients are intrinsically present rather than being added, unless those added include the complete spectrum of nutrients referenced in the 1980 RDA.

R. Gaurth Hansen, Ph.D., Provost and Professor of Nutrition and Food Science and Biochemistry, and Bonita W. Wyse, Ph.D., Associate Professor of Nutrition and Food Science, Utah State University, Logan, Utah 84322.

Errors Noted in New RDA Summary

The article (JNE 11:183, 1979) listing some of the major changes which will appear in the ninth edition of the RDAs contained some noteworthy errors. For vitamin B-6, the levels for children and adults were increased (not decreased as stated in the summary), generally ranging from 10% for a male adult to 50% for children one to six years old. For some groups there was no change.

Also, the vitamin-E RDA was not reduced to two-thirds of that in the eighth edition as indicated but remained the same. What did change were the units expressing the RDA. The eighth edition recommended an RDA of 15 IU vitamin E for adult males while the ninth edition recommends 10 mg dl-alpha tocopherol equivalent. An IU is defined as 1 mg dl-alpha tocopherol acetate. Also, 10 mg dl-alpha tocopherol, the RDA in the ninth edition, is equivalent to 14.9 IU dl-alpha tocopherol acetate in biological activity. Accordingly, the RDA is essentially the same in both editions.

Confusing? Perhaps—but we hope this helps.

Myron Brin, Ph.D., Director, Clinical Nutrition, Research Division, Hoffman-La Roche, Nutley, New Jersey 07110.

Editor’s Note

Red-faced, we acknowledge and apologize for the errors noted by M. Brin and thank him for calling these to the attention of JNE readers. Myrtle L. Brown, Executive Secretary of the Food and Nutrition Board, also called our attention to the incorrect statement about vitamin E. We appreciate the careful attention of these persons.

Correction

We apologize for a typographical error that appeared in “Changing Attitudes in Community Nutrition” by Carruth and Musgrave (JNE 11:127-132, 1979). The formula for proportion change in Figure 3 should read

\[ P = \frac{N_d + N_i}{N_d + N_i + N_{no}} \times 100. \]

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