

Women's Health: Nutrition

Introductory Remarks

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Synopsis

The relationship between diet and disease has become a key component of health promotion and

disease prevention efforts to assist the public in improving their overall health status. The definition of nutrition is in the process of transformation; it is no longer perceived only as a deficiency condition, but currently it is also regarded as a health promotion and protection mechanism. A new focus in the field of nutrition has been given to improved education concerning good nutrition and the increased use of nutritional supplements, in contrast to the current focus on obesity and eating disorders.

OF ALL THE ISSUES that might be associated with women's health, none is more obvious and certainly none is more complicated and controversial than those in the area of nutrition. This situation has occurred because nutrition is in the process of transformation from looking at the easy issues, the "univariable" issues of nutritional deficiency, to dealing with the issues of health promotion and disease prevention. The result is the recognition that such dietary problems are not only the functions of nutrient concentrations, but are also the result of interactions with a wide variety of other variables, some of which have to deal more with the issues of science.

Although Americans are generally healthier today than ever, and there have been impressive gains in health status, especially in the last decade or so, the American people continue to want to further improve their health and thus the quality of their life. Since much of the action required to promote health and prevent disease relies ultimately upon decisions to change an individual's lifestyle, the public's increased interest in promoting and protecting its own good health is, of course, very promising.

Nowhere is the public interest more evident than in the area of nutrition. As part of the movement to improve their lifestyles, many people are paying more attention to what they eat, especially since prestigious scientific institutions such as the National Academy of Sciences and the National Institutes of Health, and the joint efforts of several governmental

departments have given their imprimatur to the relationship between diet and certain diseases.

A growing body of scientific information has in recent years linked diet with disease. The increasing evidence that dietary practices significantly affect some diseases prevalent in our society has profound implications for public health policy because it suggests potentially major opportunities to reduce the risk for some chronic diseases, thus contributing substantially to the further improvement of the national health. The benefits that could be derived are significant for improving the quality of life as well as reducing suffering and relieving some of the burden of expensive health care.

The other side of this issue is the increased controversy concerning these relationships between diet and disease. The most recent public debate over the Recommended Dietary Allowances (RDA) is perhaps the best example of the argument between research scientists and public health scientists.

The increased visibility and credibility of nutrition over the last few years have resulted in several major trends. For example, many more people are seeking information and advice about their diets. The response to this public interest has been quick, if not overwhelming, with a daily overload of misinformation delivered along with sound scientific advice. Consequently, the presentation of nutrition information to the public—how much, by whom, and in what form and manner—has become a critical

public issue, one which the Food and Drug Administration (FDA) is attempting to address in several different ways.

In another context, there has been a noticeable increase in the use of nutritional supplements by the American public. Data have shown that more than half the American people use one or more supplements each day. We know something about this supplement use, and it is a very important public trend in terms of the problems that might be associated with nutritional misinformation. For example, vitamin-mineral supplement usage is more widespread among women than men. Supplement usage is higher among white, better educated, and higher income populations. When this is put together with analysis of the NHANES II (National Health and Nutrition Examination Survey) data, it suggests that those persons with higher dietary intakes are the ones most likely to supplement their diets, even after adjustments for race, age, education, and income. This, of course, suggests the obvious—that those most likely to be taking supplements are those less likely to need them.

FDA has found that there is a wide range of potencies in these supplements, from 10 to 50 times the RDA for various nutrients. And since many individuals take multiple supplements, the exposures to some nutrients may be more than a hundredfold the RDA.

High intakes of vitamins A and D are of special concern because of the dangers of toxicity. High vitamin B₆ intakes are also of concern because of evidence of peripheral nerve damage (in one case the literature suggests as little as 200 mg B₆ over a period of time). Some premenstrual syndrome supplements for women contain 2,000 mg or more of vitamin B₆.

Recently, FDA asked the nation's physicians to report to FDA adverse effects allegedly due to megadoses of vitamin-mineral supplements. We are looking for clear documentation of toxicity associated with vitamin and mineral use to help us with the regulatory process. The scientific community is concerned with the increasing public notion that large supplemental doses of single nutrients can be used to prevent diseases such as cancer. We will attempt to document these reports from the medical community through our adverse reaction monitoring system and will use those data to define the size of the problem and ultimately to determine the most effective course of action.

Unfortunately, we know very little about chronic use of supplements at high levels. We have a lot of data about acute effects, and much of what we

purport to know about the safety of these supplements is based upon those acute studies. What we do not know is what a lifetime of exposure to 50 or 100 times the RDA really means for health and particularly for the development of young people.

Looking at the entire issue of nutritional problems, one can say, as a generic statement, that there are no special nutritional problems that relate only to women. Most nutritional problems affect everyone generally to a greater or lesser extent, and the difficulty is to develop an appropriate nutrient pattern that can be modified to be helpful to everyone.

The argument can be made that each of us has a specific optimal nutrient pattern. Since it is virtually impossible to plan this for an entire population, we do recognize that there are different nutrient needs throughout life. So young children have special needs, as do women during certain periods of their lives. For example, the RDA for iron for adult women of childbearing age is higher than for men the same ages because of menstrual blood losses. Pregnancy and lactation are also conditions which impose special requirements on women, increasing calorie and other nutrient needs. Indeed, the problem in this case is to determine how much of an increase is required because too much of a good thing is also not very healthful.

Some health conditions affect women more profoundly than men, for example, osteoporosis, which is prevalent among American women of postmenopausal age. But calcium intake is only one factor in the development of this complex disease. Indeed, even within that context, calcium is one of the nutrients that is consumed at levels below the RDA by many women of all ages. The evidence suggests that bone loss begins early, at around 35 years, and therefore, if calcium does play at least one role in this disease, consumption of calcium among women younger than 35 years must be improved to take care of this later increased calcium loss.

Iron-deficiency anemia is another area where substantial research is going on, particularly among women, to determine, first, how to define iron-deficiency anemia, and second, what is the best way of dealing with it.

Obesity affects substantially more women than men, and many more women than men indicate that they are trying to lose weight. Because women are weight conscious, and because they are trying to lose weight, they are especially susceptible to weight loss fads and frauds. As FDA has published and stated again and again, very low calorie products, below 400 kcal, are dangerous to health, especially if adhered to for some time. Following deaths from

very low calorie diets a few years ago, the Agency required a warning label on products which provide 400 or fewer kcal per day.

In addition to obesity, a related area, the prevalence of eating disorders, particularly anorexia and bulimia, which occur primarily among young women, is of concern. An FDA analysis now under way of data from the Health Promotion and Disease Prevention Supplement to the 1985 National Health Interview Survey suggests that substantial numbers

of the thinnest young females in our population state that they are presently attempting to lose weight and are taking active measures to do so by reducing calories. This information certainly interjects caution into the general messages given to women about weight loss.

On the one hand, nutrition is a central component of any health program. On the other hand, there are substantial areas where knowledge is lacking to make definitive statements about the direction to take.

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Nutrition and Cardiovascular Diseases of Women

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Synopsis

Atherosclerosis and hypertension are, by far, the most common cardiovascular diseases affecting women, and both are influenced by diet. Atherosclerosis occurs more commonly in men than women; generally women are 10 to 15 years older than men when symptoms develop. The prevalence of hypertension is about equal in the two sexes, particularly in middle aged and older persons. These cardiovascular dis-

eases are major causes of death and disability in this country. Atherosclerosis results in myocardial infarction, thrombotic strokes, and claudication. Hypertension, when severe, damages small blood vessels, causing kidney failure, hemorrhage, strokes, and heart failure; when the condition is mild to moderate, it produces atherosclerosis.

Nutritional factors are of primary importance in both atherosclerosis and hypertension. Risk factors for atherosclerosis related to nutrition are hypercholesterolemia, hyperglycemia-diabetes, and for hypertension, obesity, high salt intake, and excessive use of alcohol. Of all these risk factors, obesity seems to be the most important because it is strongly linked to hypertension and diabetes. Dietary intake of saturated fat is a potent factor in determining the blood cholesterol level, and reducing intake often decreases the level, thus lessening the risk of atherosclerotic complications. Although high salt intake and excessive alcohol use produce hypertension in susceptible people, less is known about the frequency of this adverse effect than is known about obesity.

ATHEROSCLEROSIS AND HYPERTENSION are by far the most common cardiovascular diseases and each is influenced by dietary factors. Much of the information about nutrition and these cardiovascular diseases has come from the work of American epidemiologists as a reflection of the national preoccupation with food and health. Until recently, the emphasis has been on coronary heart disease in men and little attention has been paid to this common cardiovascular disease in women. This is understandable because, although women do suffer from atherosclerosis, they are usually 10 to 15 years older than men when symptoms develop. Now that people are

living longer, interest in atherosclerosis and hypertension and the possibility of preventing them have increased greatly. Since dietary factors are known to be important and since they can be manipulated with reasonable ease (or so many people think), there is increasing emphasis on understanding their roles in these cardiovascular diseases and in developing means to incorporate this evidence into programs of prevention.

On the basis of current information, nutritional factors do not differ between men and women. A genetic predisposition for one of the dietary influences seems to have no sex bias. Therefore, this