

Editorial

The Confusion Generated by Nutritional Studies

The public must be really confused when reading the conflicting claims that are made with respect to the best diet to prevent and treat disease. This applies to almost every major recommendation or finding over the past thirty years. Conflicting conclusions are reported and acted upon in the area of general nutrition, in the type of food to be consumed, and in the use of nutritional supplements.

What is the Best Diet?

One of the best examples of the confusion is seen in range of recommendations made by nutritionists, clinicians and governments as to the proportion of the diet that should be fat, protein or carbohydrate. Food pyramids are based upon the supposition that a diet high in grains and other carbohydrates and low in fat and protein is the best one. Dr. Robert Atkins proposed, many decades ago, that the high protein and high fat diet was much better for many people. He was criticized, vilified and given a very rough time. But in the past two years his book has been on the *New York Times* best seller list and many of the original critics of his conclusions are now seeing a lot of merit in his view. The *New York Times* Sunday Edition carried a major report on this amazing change.¹ Dr. Atkins was pleased.² What are we to believe, the high carbohydrate diet or the high protein, high fat diet?

These controversies have arisen with almost every claim. Cleave, Campbell and Painter concluded in 1969 that the best diet was a whole grains diet compared to one consisting of refined carbohydrates.³ He called the various conditions that arise from the typical refined carbohydrates the "Saccharin Disease." Burkitt somewhat later found that a high fiber diet was very impressive in preventing this condition. After many years the high fiber diet became popular and people began to consume wheat

bran, oat bran, rice bran and food manufacturers began to fortify their products with these brans. Now there is growing evidence that a high grains diet, whether whole or refined, may be harmful for many people.⁴ What is one to believe?

There is a modern controversy about the type of oils or fats one should have in our diet. Should they be the saturated fats or the unsaturated fats or the essential fatty acids? And should the unsaturated essential fatty acids be taken without supplemental vitamin E or should vitamin E always be taken with them? Should one try to bring down the cholesterol levels when they are too high by depending on diet, and if yes, on which diet? Or should one depend upon drugs such as the statins or supplementary niacin? Almost every nutrient has been involved in similar controversies.

I think the problem arises from the fact that foodstuffs have been broken down into their components and that each of these components has been considered as a food in itself. The major calorie constituents are carbohydrates, fats, and proteins, but these do not exist in simple form in nature. These are artifacts produced by chemists using well-defined methods, and when they are finally isolated and ready for consumption they have little resemblance to the form in which they existed in the natural state. In a wheat kernel, these three fractions are intimately involved in a three dimensional complex structure where each fraction plays its role in growth and in renewing growth. At the turn of the previous century nutritionists believed that knowing the composition of foods in terms of these three constituents only, determined the nutritional value of the preparation or mixture. In England, baby food was made from these three components and given to babies whose mothers would not or could not nurse them, or when wet nurses were not available. Many of the nobility's infants died as a result of this terrible food they were forced to eat.

Why the Controversy?

Nutritionists neglected the impact on the daily diet when they tested certain food programs, as if one could alter the amount of one product without forcing an alteration of another. What does it mean to a person if the low fat diet is recommended? If that person requires 2000 calories daily and if 500 calories previously obtained from the fats are removed, what must he do? He can only turn to the carbohydrates to replace those lost calories. Thus a low fat diet must become a high carbohydrate diet, and even worse, a high complex carbohydrate diet becomes too difficult to follow and therefore the simple sugars become a major contributor of the needed calories. In the same way, if the low carbohydrate diet is to be examined it would necessitate an increase in the amount of fat. It appears to me that proponents of these diets have simply ignored what their recommendation actually means to the individual person or patient.

One of the major changes in the preparation of food was the introduction of the silk sieve and steel roller mills in converting whole grains into flour. This produced a product that was almost free of the bran, wheat germ, and fiber present in the original whole grain. At first, white flour was too expensive for general use but later it became the preferred food. No thought was given to the possible impact of this major change on health. Over 150 years ago an army doctor fed dogs whole grain wheat and compared it with the white flour. He reported that the whole grain feed maintained dogs reasonably well, while white flour made them sick. Since then almost none of the innovations created in the food industry have been tested, for nutritional quality, on people for a long enough period of time to make certain that the changes are not harmful. According to Cleave, a major change in diet will show its impact in 20 years. Many years ago, Jews in Africa were expelled and migrated to Israel. In Africa their diets had been traditional and they were healthy but not very happy. Twenty years after living in

Israel, after they had adapted to the western diet, they were happier but not as healthy. On this diet, which is high in refined foods, they became sick, developing what was described as the saccharine disease. This was Cleave's rule of 20 years.

If the Bible was taken literally by nutritionists, they would remember the controlled-nutrition experiment conducted by Daniel. Daniel was ordered to gather a number of young men to be trained in the King's palace to become administrators. But when they arrived he discovered that they would not be allowed to eat their native food. He protested but was told there could be no exceptions. Then he asked that his charges be allowed to remain on their own diet for a few weeks and that at the end of that period his group of young men be compared to the young men who were on the standard diet provided by the palace. The results must have been striking because thereafter they were allowed to eat their own food, which consisted of whole grains and vegetables with legumes. This, as far as I know, was the first recorded controlled nutritional trial, and it has been totally ignored for centuries.

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References

1. Gary Tobe, *New York Times, Sunday Edition* July 18, 2002.
2. R Atkins <http://forum.lowcarber.org/t51752.html>
3. Cleave TL, Campbell GD, Painter NS: *Diabetes, Coronary Thrombosis and the Saccharine Disease*. Bristol, England, John Wright and Sons. 1969
4. Smith MD: *Going against the Grain*. Contemporary Books, New York, 2002.