Atkins Evidence Still Unclear

By ACSH Staff — April 10, 2003

One of the most hotly contested issues in the popular nutrition press of late has been cutting carbs: that is, whether or not the much-touted low-carbohydrate, high protein, high fat diet espoused by such diet gurus as Dr. Atkins is better at helping people lose weight than a balanced, moderately high carbohydrate diet. Most mainstream nutrition experts have been leery of the rather extreme Atkins diet, partly out of concern that its high complement of total and saturated fats might cause or exacerbate heart-damaging blood lipid levels.

A group of researchers from Stanford and Yale Universities combed the medical literature in an effort to unearth studies that would support or refute the benefits of one or the other type of diet. Unfortunately, the pickings were rather slim, as they report in the April 9, 2003 issue of the Journal of the American Medical Association (JAMA).

Extensive bibliographic searches of the medical literature from 1966 to mid-February, 2003, revealed only 107 research articles that met their criteria. Among other requirements, the studies' diets had to contain sixty grams or less of carbohydrate per day, last at least four days, and provide at least 500 calories per day.

Although the studies met minimal criteria for inclusion in the JAMA review, the researchers noted that they were by no means uniform. Among the 107 studies included, there were ninety-four different diet interventions with a range of 0-901 grams of carbohydrate and 525-4629 calories per day. The dietary interventions lasted anywhere from four to 365 days, and none of them evaluated the effects of diets containing less than sixty grams of carbs per day in people older than about fifty-three years.

Such heterogeneity in the studies seriously weakens the strength of the conclusions that can be reached from combining their data. In fact, the researchers concluded that it "precludes drawing conclusions from the synthesis of the total group of studies." In sum, they found that there really was no basis for making recommendations for or against low-carbohydrate diets. The weight loss of participants in the reviewed studies was mainly associated with decreased caloric intake and the duration of their diets, not with the level of carbohydrate, protein, or fat in those diets.

The authors stated that five major gaps in the scientific literature must be addressed in order to gain conclusive evidence about the efficacy of the different weight loss diets. These are:

1. There is a lack of adequate long-term follow-up data, so that it is impossible to predict the long-term safety and efficacy of low-carbohydrate diets.

2. There are not sufficient data on ethnic or racial differences in the response to such diets.

3. Many of the studies these researchers reviewed didn't report on subjects' activity levels, so the
importance of exercise could not be evaluated.

4. Some of the reviewed studies also provided counseling or other supportive components for their subjects to help them adhere to the diet programs. Unfortunately, reporting on the efficacy of these supports varied, so that factor could not be evaluated.

5. Many of the studies used data from only those participants who completed the relevant protocols. This introduces a bias into the study design that could make an intervention appear more effective than it actually was.

In sum, at present the only scientifically valid response to the question of whether low-carbohydrate diets are better or safer for weight loss is that we just don't know.