A dramatically increasing prevalence of obesity has been observed worldwide in recent decades. Obesity is a risk factor for cardiovascular risk factors, such as hypertension, type 2 diabetes mellitus, and hyperlipidemia, and as a consequence, obese persons have an increased risk of atherosclerosis, stroke, ischemic heart disease, heart failure, and mortality. To prevent cardiovascular disease, obese persons must make lifestyle modifications to reduce their weight properly.

The behavior targets for obesity prevention are focused on healthy diet and physical activity. The healthy diet consists of eating a lot of fruits, vegetables, whole grains, and nuts; limiting calories from added sugars, solid fats, and alcohol; and regulating energy intake rather than eating until the plate is empty. According to the Practical Guide – Identification, Evaluation, and Treatment of Overweight and Obesity in Adults, successful weight reduction requires paying particular attention to the following topics: choosing a balanced diet comprising fats, carbohydrates, and proteins; evaluating nutrition labels to determine caloric content and food composition; giving priority to low-calorie foods; avoiding high-calorie ingredients during cooking (eg, fats and oils); avoiding overconsumption of high-calorie foods (high-fat and high-carbohydrate foods); drinking an adequate amount of water; reducing portion sizes; and limiting alcohol consumption. In general, healthcare providers, especially physicians, nurses, and/or dietitians, conduct counseling for the prevention of obesity. There are 3 worthwhile reasons for talking to obese persons about lifestyle modification: (1) participants will understand that a healthy lifestyle is important; (2) an interview about current lifestyle habits opens the door to modifying these habits; and (3) patients may be more responsive to lifestyle modifications when the advice comes from a healthcare provider.

Recently, a randomized controlled trial, the Practice-based Opportunities for Weight Reduction (POWER) trial, was performed to determine the effectiveness of 2 behavioral weight loss interventions. The target population consisted of obese adults (≥21 years of age) who had one or more cardiovascular risk factors. The first intervention provided patients with weight-loss support remotely by telephone, a study-specific Web site, and e-mail (remote support only group), and the other intervention provided in-person support during group and individual sessions, along with the 3 remote means of support (in-person support group). There was also a control group in which weight loss was self-directed (control group). The mean change in weight from baseline was significantly decreased by −4.6 kg and −5.1 kg in the group receiving remote support only and the in-person support group, respectively, compared with −0.8 kg in the control group. Participants with obesity achieved and sustained clinically significant weight reduction over 1 year in the in-person support and in the remote support only group, where information was delivered remotely without face-to-face contact between participants and weight loss counselors for 2 years. Now that remote support coaching for weight-loss outcomes is similar to that of in-person visits, the use of mobile technologies to deliver behavioral weight-loss treatment appears to be useful in primary care. However, regardless of the amount of weight lost, it is challenging to maintain weight reduction for many years. Help with maintaining weight loss in the long term may be necessary.

There have been many previous clinical trials of calorie-restricted diets or formula food for weight loss, but there have been few original articles about the combination of delivered meals and dietary counseling in patients with hypertension and/or type 2 diabetes mellitus as an intervention study. Troyer et al conducted a 1-year randomized controlled trial with 298 persons, among whom 50% received 7 Dietary Approach to Stop Hypertension (DASH) meals per week for 1 year. The DASH meals were found to increase compliance with dietary recommendations among noncompliant older adults with cardiovascular disease. However, in that study, meals were not delivered daily to each individual’s house. Individual meal delivery may be simpler and result in greater weight loss.

In a related work that appears in this issue of the Journal, Noda et al studied the effects of dietary counseling by registered dietitians and the use of delivered correctly calorie-controlled meals. They recruited 200 patients with hypertension and/or type 2 diabetes mellitus who were randomly divided into 2 groups, with and without dietary counseling, and consumption of an ordinary diet for 1 month. Each group was then subdivided into 2 groups, with and without dietary counseling, and received calorie-controlled “bento (lunch boxes)” for the...
following month. The combination of dietary counseling and delivered calorie-controlled meals was effective for weight reduction as well as alleviating cardiovascular risk factors. Comprehensive counseling that includes the delivery of healthy “bento” may be important for lifestyle modification. However, weight loss is mostly associated with weight regain and, as a result, may not be successful over a person’s lifetime. Further comprehensive cross-over intervention studies are required to support the long-term prevention of obesity, along with the use of a validated nutritional survey to test interventional studies of counseling by dietitians and delivering proper calorie-controlled meals.

References