Meal Replacements as a Strategy for
Weight Loss and Maintenance

Overview

The use of meal replacements as a strategy for weight loss has increased in popularity. Meal replacements can take the form of shakes, meal/snack bars, or frozen entrees. Many meal replacements are fortified with vitamins and minerals and can be used as a substitute for a traditional meal or snack. They may contain fewer calories than a traditional meal and are nutritionally balanced. Meal replacements are palatable, affordable, convenient, and allow the consumer to easily control portion size and thus calorie intake. They can interrupt a person’s usual dietary pattern and thereby assist him/her in breaking less desirable eating habits as well as reducing the number of decisions people must make regarding food choices and portion size.

The ultimate goal of weight management in a behavioral-cognitive program such as LIFESTEPS is the maintenance of achieved weight loss through the development of new eating patterns that promote long-term health and weight maintenance. The role of meal replacements in this framework is less clear where normalized eating and the enjoyment of meals are important considerations as well as overall weight status.

Weight Loss

The literature shows that meal replacements can be effective tools for weight management. Some studies (Dietschuneit 1999, 2001) have compared people who consumed three conventional meals and two snacks daily that provided 1200-1500 kcals to people who replaced two of their meals with meal replacements for an initial weight loss phase. The results showed that the people using meal replacements lost a significantly greater amount of weight at the end of the initial phase. Another study (Ashley 2001) compared conventional food intake to an isocaloric diet with 2 or the 3 daily meals replaced with meal replacement shakes or bars. Both groups attended behaviorally-based group sessions conducted by a registered dietitian. A third group followed the meal replacement protocol, but the dietitian led sessions were replaced with regular visits to their primary care providers. All groups participated in the program for one year. All three groups lost weight with the dietitian led meal replacement group achieving a significantly greater loss than either the conventional food group or the primary care provider, meal replacement group. Attrition in this study was high and similar across treatment groups.

The American Dietetic Association’s Evidence Analysis Library (available at www.eatright.org) has researched this topic and developed the following summary statement.

“Several studies comparing isocaloric diets have shown an equivalent or greater weight loss efficacy with structured meal replacement plans, compared to reduced calorie diet treatments. One or two daily
vitamin- and mineral-fortified meal replacements, supplemented with self-selected meals and snacks, may be a successful weight loss and weight maintenance strategy for overweight and obese adults who have difficulty with self-selection of food and portion control.”

Meal replacements may be effective because they remove decisions on food choice and amount. Research shows that providing structured meal plans and telling subjects the type and amount of food that they should consume contributes to weight loss. This is thought to help because it: improves the quality of food stored at home, provides structured eating for participants, increases their knowledge of the caloric content of foods, and simplifies the task of following a prescribed diet because there is less planning involved. Instead of using a typical meal replacement shake or bar, another study (Mattes 2002) demonstrated that using a measured portion of a conventional food like cereal could be effective at initiating a greater amount of initial weight loss as well.

Maintenance

It is important to note that while meal replacements may facilitate a fair amount of initial weight loss, they are not an all-inclusive solution to weight loss maintenance. A systematic review (Franz 2007) of various types of weight loss interventions showed that a diet and exercise intervention gave somewhat better results than the meal replacement intervention. Since the meal replacement strategy has only been compared to a diet only strategy and not a diet and exercise one, it is difficult to draw statistical comparisons. For all the methods examined, the majority of the weight loss occurred during the initial six months with some weight gain over the following 42 months, thus those with larger weight losses initially had larger total losses at the end of the studies. Data collected from members of the National Weight Control Registry (McGuire 1998) indicate that users of meal replacements have reported a greater difficulty in maintaining weight loss once they return to conventional foods, possibly because they had yet to learn how to control caloric intake without the use of meal replacements. Many of the studies that compare conventional food diets with meal plans substituting meal replacements for 2 meals for the initial treatment phase, have subjects from both treatment groups consume a meal replacement for at least one meal per day during the follow-up or maintenance phase of the study. This study design makes it difficult to compare maintenance for conventional food diets versus meal replacement regimens.

Evidence is strong that the use of meal replacements during the initial phase of a weight loss program can enhance weight loss. The unanswered question is when and how individuals should transition back to “normalized” eating with conventional foods. Data is not available to answer this question at this time.

Summary

Meal replacements can be an effective solution for those looking to initiate weight loss and for those who have trouble controlling their caloric intake with conventional foods. However, they should not be looked at as a long-term solution for weight loss maintenance. Meal replacements do not promote
the adoption of dietary practices that can decrease energy intake using conventional foods. The use of meal replacements may foster a reliance on a specific product, and the monotony of them may become an issue for some clients, which could lead to decreased adherence to a weight management program in the long-term. Meal replacements are effective because when people consume them, as opposed to conventional foods, they typically ingest fewer calories. The inclusion of meal replacements in a behavioral-cognitive program must be addressed in the context of a focus on the development of long-term sustainable eating patterns that are nutritionally sound and provide eating enjoyment.

References and Background Reading


Wing RR, Jeffrey RW. Food provision as a strategy to promote weight loss. Obes Res 2001; 9:271S-275S.
Summary Points

Advantages of Meal Replacements:

- Come in a variety of forms – shakes, snack bars and frozen entrees.
- Are typically nutritionally balanced.
- Are palatable, affordable, and convenient.
- Reduce decision-making concerning food choice and portion size.
- Can result in greater weight loss initially when compared to weight loss strategies using conventional foods.
- May facilitate initial participation and adherence to a weight management process.

Limitations of Meal Replacements:

- Are less effective for weight maintenance than for initial weight loss.
- May foster a reliance on a specific product.
- Can become boring which may become a problem for long-term use.
- Do not teach individuals how to manage their food choices and portion sizes.
- Limit the ability for the individual to participate in family/group meals at home or away from home.
- May promote feelings of “dieting” rather a focus on the development of new, healthy and enjoyable eating patterns.

Guidelines for LIFESTEPS Leaders and Participants

LIFESTEPS® Leaders should:

- Understand that meal replacements may be a good short-term solution for individuals who have trouble controlling their food intake with conventional foods.
- Know that regular use of meal replacements may not promote long-term adherence to a healthy lifestyle.
- Assist participants in relearning the enjoyment of eating.
- Remember that it is total calorie intake that counts, no matter what the source of the calories.
- Recognize that meal replacements may have a place in a cognitive-behavioral program, but can’t replace the underlying philosophy of lifestyle change.
- Advise individuals that losing weight by reducing their calorie intake with conventional foods and increasing physical activity can help them establish new behaviors that facilitate both weight loss and weight maintenance.

LIFESTEPS Participants should:

- Evaluate the ease-of-use of meal replacements against the long-term benefits of developing new eating behaviors.
- Recognize the long-term limitations of meal replacements to provide normalized and satisfying meals with family and friends.
- Learn to use meal replacements in specific situations where healthy eating may be difficult such as with a hectic lunch schedule or travel day versus relying on them on a regular basis.
- View meal replacements as an additional tool in their total weight management arsenal, rather than a magic bullet.
- Recognize that successful weight management is not just about weight, but is also about lifestyle and the ability to enjoy food.