LIFESTEPS® and Diabetes Prevention

How does the LIFESTEPS® Weight Management Program support diabetes prevention?

The LIFESTEPS® Weight Management Program (LIFESTEPS®) is a cognitive-behavioral program designed to assist adult consumers in making lifestyle changes in eating and physical activity behaviors. Program participants utilize a small-step approach to build an eating and physical activity plan that works for them. While taught in a small group (10-18 individuals) format to provide social support, the program is individual in that each participant develops a plan specific to his/her needs and lifestyle preferences. The program contains 16 weekly sessions plus eleven additional maintenance sessions. All LIFESTEPS groups are taught by a trained leader. When taught as designed, LIFESTEPS provides 15 months of content, including 4 months in the 16 week base program, plus 11 months of maintenance sessions taught monthly.

The following table is a summary of the nutrition and weight management guidelines contained in Standards of Medical Care in Diabetes, 2013: A Position Statement of the American Diabetes Association (2013)(1) and Nutrition Recommendations and Interventions for Diabetes, a Position Statement of the American Diabetes Association (2008)(2), along with a comparison of how LIFESTEPS® supports each of these concepts.

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<tr>
<th>Diabetes Prevention Recommendation:</th>
<th>LIFESTEPS® Philosophy and Treatment Guidelines</th>
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<tr>
<td><strong>Effectiveness of MNT</strong></td>
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<td>Individuals who have pre-diabetes or diabetes should receive individualized MNT; such therapy is best provided by a registered dietitian familiar with the components of diabetes MNT. (Am Diabetes Assoc, 2013, 2008)</td>
<td>LIFESTEPS® is taught by RDs or qualified health professionals who teach participants how to develop a healthy eating plan based on the current US Dietary Guidelines (USDA, 2010) that is personalized and meets their specific nutrient and lifestyle needs. LIFESTEPS® utilizes a small group format to enhance peer support for change with individual sessions utilizing motivational interviewing techniques at key points in the program.</td>
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<td>Nutrition counseling should be sensitive to the personal needs, willingness to change, and ability to make changes of the individual with pre-diabetes or diabetes. (Am Diabetes Assoc, 2013, 2008)</td>
<td>LIFESTEPS® screening process is designed to assess an individual’s readiness to change utilizing a motivational interviewing format (Miller, 2009. Myers, 2008). Each class session offers the opportunity for participants to set small, gradual, individualized goals. LIFESTEPS® also provides the opportunity for each participant to decide which goals to continue working on that they feel they...</td>
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## Diabetes Prevention Recommendation:

- Energy balance, overweight, and obesity

  In overweight and obese insulin-resistant individuals, modest weight loss has been shown to improve insulin resistance. Thus, weight loss is recommended for all such individuals who have or are at risk for diabetes. *(Am Diabetes Assoc, 2013, 2008)*

  LIFESTEPS® recommends the slow, gradual loss of approximately 1 pound per week which has been shown to be more sustainable over time. *(Hill 2009)*

  LIFESTEPS® has conducted outcomes research to determine the efficacy of the program. Unpublished results indicate weight losses of an average of 1 pound per week, which is in accordance with this recommendation. *(Heller 2010, Heller 2010)*

  For weight loss, either low-carbohydrate or low-fat calorie-restricted diets may be effective in the short term (up to 1 year). *(Am Diabetes Assoc, 2013, 2008)*

  LIFESTEPS® is based on the MyPlate food guidance system which promotes increased fruits, vegetables, whole grains, lean proteins and low fat and fat free dairy. Following this type of food plan results in a lower fat, lower calorie meal plan. *(CNPP)*

  Physical activity and behavior modification are important components of weight loss programs and are most helpful in maintenance of weight loss. *(Am Diabetes Assoc, 2013, 2008)*

  Behavior modification is the framework for the LIFESTEPS® program and behavioral strategies are taught throughout the program. The program is based on documented behavioral strategies emphasizing monitoring, stimulus control, goal setting, cognitive restructuring, and relapse prevention delivered in a structured setting. *(Foster, 2005. Wadden 2005)*.

  Physical activity is the second step (class) of the program and is part of every step thereafter. LIFESTEPS® follows the ACSM and HHS Physical Activity Guidelines for Americans of 150 min/week of moderate physical activity or 30 minutes of moderate activity on all or most days of the week. *(ACSM 2011, DHHS 2008)*.

<table>
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<td>can incorporate into a healthy lifestyle.</td>
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Diabetes Prevention Recommendation: | LIFESTEPS® Philosophy and Treatment Guidelines
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**Energy balance, overweight, and obesity** *(cont.)*

Weight loss medications may be considered in the treatment of overweight and obese individuals with type 2 diabetes and can help achieve a 5–10% weight loss when combined with lifestyle modification. (Am Diabetes Assoc, 2013, 2008)

LIFESTEPS® promotes lifelong behavioral changes in eating and physical activity as the primary approach to weight management. However, some individuals working with their physician, may choose, or need, to use a medication in addition to lifestyle modification. LIFESTEPS® was the lifestyle intervention program of choice for the researchers in the study of the weight loss medication, orlistat. (Poston 2003)

Bariatric surgery may be considered for some individuals with type 2 diabetes and BMI 35 kg/m² and can result in marked improvements in glycemia. The long-term benefits and risks of bariatric surgery in individuals with pre-diabetes or diabetes continue to be studied. (Am Diabetes Assoc, 2013, 2008)

LIFESTEPS® has been used as a pre-surgical lifestyle intervention at some bariatric centers. LIFESTEPS® does not promote surgical or medical interventions, however, the LIFESTEPS® Weight Management Program may complement such treatments.

**Preventing diabetes (primary prevention)**

Among individuals at high risk for developing type 2 diabetes, structured programs that emphasize lifestyle changes that include moderate weight loss (7% body weight) and regular physical activity (150 min/week), with dietary strategies including reduced calories and reduced intake of dietary fat, can reduce the risk for developing diabetes and are therefore recommended. (Am Diabetes Assoc, 2013, 2008)

LIFESTEPS® is a structured small group 16-week program that incorporates the nutrition, physical activity, and behavioral concepts that support lifestyle change.

LIFESTEPS® has conducted outcomes research to determine the efficacy of the program. Unpublished results indicate weight losses of an average of 1 pound per week, which is in accordance with this recommendation. (Heller 2010, Heller 2010)

Individuals at high risk for type 2 diabetes should be encouraged to achieve the USDA recommendation for dietary fiber (14 g fiber/1,000 kcal) and foods containing whole grains (one-half of grain intake). (Am Diabetes Assoc, 2013, 2008)

LIFESTEPS® encourages increased consumption of whole grains, fruits and vegetables, which will result in an increased intake of fiber. (USDA 2010, CNPP)
**Diabetes Prevention**

**Recommendation:**

**Preventing diabetes (primary prevention) (cont.)**

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<td>There is not sufficient, consistent information to conclude that low–glycemic load diets reduce the risk for diabetes. Nevertheless, low–glycemic index foods that are rich in fiber and other important nutrients are to be encouraged. (Am Diabetes Assoc, 2013, 2008)</td>
<td>LIFESTEPS® is an evidence-based program that encourages the consumption of foods rich in fiber and other important nutrients. However, until the research on glycemic index is stronger, the program doesn’t specifically address it.</td>
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**Controlling diabetes (secondary prevention)**

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<th>Carbohydrate in diabetes management:</th>
<th>LIFESTEPS® is based on the current US Dietary Guidelines and the MyPlate food guidance system which promote increased fruits, vegetables, whole grains, lean proteins and low fat and fat free dairy. (USDA 2010, CNPP)</th>
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<tr>
<td>A dietary pattern that includes carbohydrate from fruits, vegetables, whole grains, legumes, and low-fat milk is encouraged for good health. (Am Diabetes Assoc, 2013, 2008)</td>
<td>Learning to make substitutions of higher calorie options for lower calorie, nutrient dense foods is taught in the LIFESTEPS® program.</td>
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<td>Carbohydrate in diabetes management:</td>
<td>Fruits, vegetables and whole grains are highlighted in the MyPlate food guidance system and in LIFESTEPS®. (USDA 2010, CNPP)</td>
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<td>Sucrose-containing foods can be substituted for other carbohydrates in the meal plan or, if added to the meal plan, covered with insulin or other glucose-lowering medications. Care should be taken to avoid excess energy intake. (Am Diab Assoc, 2013, 2008)</td>
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<tr>
<td>Carbohydrate in diabetes management:</td>
<td>LIFESTEPS® follows the MyPlate guidance system which leads to a lower fat, lower cholesterol diet overall. (USDA 2010, CNPP)</td>
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<td>As for the general population, people with diabetes are encouraged to consume a variety of fiber-containing foods. However, evidence is lacking to recommend a higher fiber intake for people with diabetes than for the population as a whole. (Am Diabetes Assoc, 2013, 2008)</td>
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<td>Fat and cholesterol in diabetes management:</td>
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<td>Limit saturated fat to &lt; 7% of total calories. (Am Diabetes Assoc, 2013, 2008)</td>
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### Diabetes Prevention Recommendation:

**Protein in diabetes management:**
High-protein diets are not recommended as a method for weight loss at this time. The long-term effects of protein intake < 20% of calories on diabetes management and its complications are unknown. Although such diets may produce short-term weight loss and improved glycemia, it has not been established that these benefits are maintained long term, and long-term effects on kidney function for persons with diabetes are unknown. (Am Diabetes Assoc, 2013, 2008)

LIFESTEPS® recommendations are in line with the current US Dietary Guidelines and MyPlate guidance system, which encourage a moderate protein intake. (USDA 2010, CNPP)

### Reference:


