

8 eating plans for patients with prediabetes

DEC 25, 2019

Sara Berg, MS

Senior News Writer

Nutrition therapy is an important component of prediabetes and diabetes care, which makes it important for every member of the health care team to know and champion the benefits for their patients. But which eating plans work best for patients with prediabetes? A consensus report from the American Diabetes Association digs in.

The AMA's Diabetes Prevention Guide supports physicians and health care organizations in defining and implementing evidence-based diabetes prevention strategies. This comprehensive and customized approach helps clinical practices and health care organizations identify patients with prediabetes and manage the risk of developing type 2 diabetes, including referring patients at risk to a National Diabetes Prevention Program lifestyle change program based on their individual needs.

Published in the journal *Diabetic Care*, "Nutrition Therapy for Adults With Diabetes or Prediabetes: A Consensus Report," provides health professionals with evidence-based guidance about nutrition therapy for adults with prediabetes or type 2 diabetes.

Mediterranean-style diet. For patients with prediabetes or type 2 diabetes, the Mediterranean style eating pattern demonstrated a mixed effect on A1C, weight and lipids. In the PREDIMED trial, the Mediterranean diet was compared with the low-fat eating pattern. After four years, glycemic management improved in the Mediterranean group. The need for glucose-lowering medications was also lower in this group. This trial also showed Mediterranean diets enriched with olive oil or nuts significantly reduced cardiovascular incidence.

Vegetarian or vegan eating patterns. Studies covering vegetarian or vegan eating plans ranged in duration from 12 to 74 weeks with mixed results on glycemia and cardiovascular disease risk factors. Both plans resulted in weight loss and also reduced A1C by an average of 0.3 to 0.4% in people with type 2 diabetes. Plant-based eating patterns can also reduce weight, waist circumference, LDL cholesterol and non-HDL-C with no significant effect on fasting insulin, HDL-C, triglycerides and blood pressure.

Low-fat eating plans. The report highlights the Look AHEAD (Action for Health in Diabetes) trial, which had individuals follow a calorie-restricted low-fat eating plan. This was completed in a structured weight loss program using meal replacements and achieved moderate success compared to the control condition eating plan. Yet lowering total fat intake did not consistently improve glycemia or cardiovascular disease risk factors in people with type 2 diabetes. The benefit from a low-fat eating pattern is mostly related to weight loss.

Ornish or Pritikin very low-fat plans. These lifestyle programs are two well known multicomponent very low-fat eating plans. The Ornish program emphasizes very low-fat, whole-food, plant-based eating. The Pritikin plan advises people to consume 77% of calories from carbohydrates, 10% from fat, 13% from protein and 30 to 40 grams of fiber per 1,000 calories with no restriction during a 26-day stay in an inpatient treatment center. Both plans may improve glucose levels, weight, blood pressure and HDL-C.

Low or very low carbohydrate. Both plans are the most studied for patients with type 2 diabetes. One meta-analysis found that A1C benefits were more pronounced in the very low carbohydrate eating plan at three and six months, but not at 12 and 24 months. Another study looked at low carbohydrate and low-fat eating plans. Trials up to six months long found that the low carbohydrate plans improved A1C more and lowered triglycerides, raised HDL-C, lowered BP and resulted in greater reductions in diabetes medication in trials of varying lengths. Long-term studies are needed to understand the impact of these eating plans on cardiovascular outcomes.

Dietary Approaches to Stop Hypertension (DASH) diet. One small study compared the DASH eating plan with a control group in people with type 2 diabetes. It found that A1C, blood pressure and cholesterol levels improved. Weight loss was also experienced with the DASH diet, but there were no differences with triglycerides. Another study compared DASH with increased physical activity to a standard eating plan without activity. Blood pressure was lowered in the DASH plus physical activity group, but A1C, weight and lipids did not differ.

Paleo eating plan. Very few studies have focused on the paleo diet in adults with prediabetes or type 2 diabetes. The studies range from 13–29 participants and often last no longer than three months. From these studies, the findings have shown mixed effects on A1C, weight and lipids. More research is needed to determine the effects of the paleo eating plan on patients with prediabetes or type 2 diabetes.

Intermittent fasting. This is not an eating plan but has been included because of an increased interest from the diabetes community. Many people fast for weight management or spiritual practice. In this case, intermittent fasting focuses more on when a person eats rather than what they eat. Three studies showed that intermittent fasting may result in weight loss, but there was no improvement in A1C. Safety of intermittent fasting in those with special medical conditions has not been studied.