

IMPACT

University of Idaho
Extension

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Diabetes Pedometer Program Reports Changes in Eating and Physical Activity Habits

The Situation

The number of Americans with diabetes is projected to grow from 12.1 million to 17.4 million by 2020, (43%). The prevalence of diabetes in Idaho is 6%, with an annual cost of approximately 658 million dollars.

Many adults with type 2 diabetes have poor eating habits and are not physically active. Type 2 diabetes (the most common kind) occurs when the body becomes insensitive, or resistant, to insulin in the blood. When insulin stops working, blood sugar levels rise and diabetes sets in. Regular exercise reverses the damage. Exercise increases insulin sensitivity and makes the cells better at taking in glucose and processing it.

A lack of physical activity also plays a role in developing diabetes. In Idaho, those who reported no leisure time physical activity were 2.2 times more likely to have been diagnosed with diabetes when compared with those who participated in some kind of leisure time physical activity. A landmark study by the National Institutes of Health (NIH) found that those at risk for type 2 diabetes could reduce the likelihood of developing the disease by 58% with, 30 minutes of moderate daily exercise and by weight reduction, and eating a low-fat, low-carbohydrate diet. This study demonstrated that lifestyle interventions could actually prevent the disease.

In a study of more than 50,000 nurses, reported in the *Journal of the American Medical Association*,

(2003), every two hours a day of TV-watching was linked to a 14% increase in the risk of diabetes. Every two hours of sitting at work was linked to a 7% increase. In contrast, every hour of brisk walking per day was linked to a 34% lower risk.

Our Response

A five lesson curriculum called The Healthy Diabetes Plate and Physical Activity Program was developed by the University of Idaho to teach participants how to eat healthier and be more active. The topics covered in the five week course include: signs and symptoms, meal planning, using the Idaho Plate Method, grocery tour, reading labels, incorporating recipes, eating out and physical activity. Physical activity information included: benefits of physical activity, how to use a pedometer, setting goals, increasing level of physical activity, overcoming barriers to physical activity, and stretch band activities.

The Idaho Diabetes Prevention and Control Program provided pedometers and stretch bands and the Health Department provided information on physical activity resources in the community, e.g. walking trails.



Program Outcomes

Subjects' (N=25) changes in eating habits were measured using a pre (week 1), post (week 5), and follow-up survey. In addition, participants received a pedometer and recorded their daily steps for nine weeks. Changes in eating habits included an approximately 30% increase in grain, whole grain and fruit intake, and a 20% increase in vegetable and milk/yogurt intake. Physical activity changes included a 50% increase in how frequently participants met the 30 minute/day physical activity recommendations. Average daily steps increased throughout the program. At week 1 (baseline), participants averaged 5,481 steps/day; at week 5 the number of steps increased to 10,094 steps/day and at week 9, the number of steps increased to 11,403 steps/day. Participants who completed these lessons made moderate changes in eating habits and significant changes in physical activity habits.



For More Information

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