

Defeat Diabetes, Missouri!

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Reducing Diabetes Risk in Missouri

Diabetes is a public health threat with serious consequences. What can be done to stop it?

Introduction

- Type II diabetes occurs when insulin production is not sufficient to overcome insulin resistance. While genetics play a role in the development of the disease, type II diabetes has strong links to lifestyle factors, and often results from a combination of excess body fat (as measured by BMI or abdominal fat stores), lack of physical activity, and specific dietary factors (1). Excess body fat is an important risk factor for Type II diabetes (1). In fact, a rise in the number of new cases of the disease worldwide has closely mirrored the trend in increased rates of overweight and obesity over recent years (2). Type II diabetes has serious health consequences in its own right, and contributes substantially to the development of cardiovascular disease (1), which is the leading cause of death in the United States. The disease not only contributes substantially to a variety of negative health outcomes, including blindness, kidney failure, and poor circulation resulting in amputation, but also poses a substantial burden to the healthcare system (1). Lost productivity and direct medical expenditures resulting from diabetes for 2002 were estimated at \$132 billion in the US (2). With increased physical activity, employees will take fewer sick days and decrease expenditures by employer-based health insurance plans.

Recommendations

Changes in the work environment can provide opportunities for workers to reduce their risk of diabetes, while also benefiting employers.

- Employers with onsite fitness facilities should encourage employees to utilize these facilities during the lunch hour and in the hours immediately before and after work.
- Employers should provide incentives to employees for using these facilities by offering discounted or free memberships and allotting time during the workday for physical activity.
- Independent, on site dining facilities should offer healthy food choices that follow the guidelines for reducing diabetes risk. Tax incentives can offset the potential additional costs associated with procurement of healthier food options.
- Employers should promote a 'culture of health' where employees are encouraged to engage in healthy behaviors by instituting the use of educational bulletin boards or posters on diabetes risk and prevention, which can be obtained free of charge from the American Diabetes Association.



The Challenge

The number of new cases of diabetes in the US has increased sharply in recent years, and environmental and lifestyle factors play a role. A sedentary lifestyle and diet high in calories and low in whole grains increase the risk of type II diabetes, in part by increasing body fat stores. The challenge is to find ways to increase opportunities for physical activity and healthy food options, and to make these choices convenient and easy.

Recent Research and Findings

- Researchers followed a large cohort of women prospectively and found that the risk of developing type II diabetes increased sharply in women having a BMI > 23 for a period of 16 years, with a 20-fold increase in risk for those having a BMI above 30 (4).
- Modest improvements in body weight and increases in physical activity can delay or prevent the onset of type II diabetes (5).
- Several randomized controlled trials have demonstrated that diabetes can be prevented by interventions specifically targeting diet, physical activity, or a combination of the two (1).
- Brownson and colleagues found that physical changes in the environment combined with behavioral and social interventions maximized increases in physical activity levels (6).
- The Task Force on Community Preventive Interventions suggested that the creation of new social networks or networks within pre-existing networks in a setting outside the family (e.g., the workplace) could increase levels of physical activity and improve physical fitness (7).

References

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