

American Indians and Alaska Natives and Diabetes

Diabetes mellitus poses a significant public health challenge for the US. Some 800,000 cases are diagnosed each year, and changing demographic patterns in the US are expected to increase the number of people at risk for diabetes and who eventually develop the disease. Diabetes is a chronic disease that usually manifests as one of two major types. In type 1, which occurs mainly in children and adolescents, the body does not produce insulin, and insulin administration is required to sustain life. In type 2, which usually occurs in adults over 30 years of age, the body becomes unable to use its own limited supply of insulin effectively. (US DHHS, 2000).

Adult-onset diabetes also has **strong physiologic ties to cardiovascular disease (CVD)**. The majority of patients with diabetes mellitus die of complications of CVD rather than of causes associated directly with glucose control. (US DHHS, 2003).

Diabetes is a major clinical and public health challenge among certain racial and ethnic groups in which both the number of new cases of diabetes and the risk of associated complications are great. Vulnerable and high-risk populations include Asian Americans and Pacific Islanders, elderly persons, and economically disadvantaged persons. Factors that account for this chronic disease epidemic include behavioral elements (e.g., increased fat consumption, decreased physical activity, obesity), demographic changes (aging, increased growth of at-risk populations), genetics, cultural and community traditions, and socioeconomic status. The level of patient knowledge and empowerment has a great impact on the disease burden associated with diabetes. (US DHHS, 2000).

Overweight and Obesity

Overweight and obesity are major contributors to many preventable causes of death. On average, higher body weights are associated with higher death rates. Those who are overweight or obese have a substantially higher risk of developing high blood pressure, high cholesterol, type 2 diabetes, heart disease and stroke, gallbladder disease, arthritis, sleep disturbances and breathing problems, and certain types of cancer. (US DHHS, 2000).

- **Incidence and Mortality**
- **Complications**
- **Traditional Health Beliefs and Practices**
- **Risk Factors and Challenges**
- **Strengths and Protective Factors**
- **Adherence Factors**
- **Diet**
- **Complementary and Alternative Medicine**
- **Service Interventions**
- **References and Resources**

Service Interventions

- A research study called the **Diabetes Prevention Program (DPP)**, which worked with American Indians who had impaired glucose tolerance (IGT) and were overweight, showed that **lifestyle changes (diet and moderate exercise) can sharply delay and possibly prevent type 2 diabetes among American Indians**. Specifically, diet and exercise resulting in a 5% to 7% weight loss lowered the incidence of diabetes (development of new cases) by 58%. The same study found that the drug metformin cut the incidence of type 2 diabetes by 31%. Although both interventions lowered fasting blood glucose levels, diet and exercise were more effective at lowering blood glucose levels two hours after a glucose drink. Also, about twice as many people in the lifestyle-change group compared with those who got standard advice regained normal glucose levels, showing that diet and exercise can reverse IGT. (NIDDK, 2002).
- **Lifestyle-change program for American Indians and Alaska Natives.** The Diabetes Wellness Connection of the Native American Diabetes Project provides a culturally appropriate program to help people eat healthy foods, exercise more, and be strong in body and spirit. In five online “meetings,” the program encourages people to exercise regularly, eat less fat and sugar, encourage one another, and stay on the path. To visit this site and learn more about the program, go to www.laplaza.org/health/dwc/nadp/index.htm.

Culturally Appropriate Encouragement to Get American Indians to Exercise More

“Getting started with exercise is much like having a garden. With our gardens, we have a plan and set a goal, to make a garden and have vegetables, even though we may not say I’m planning a garden and my goal is to have vegetables.

“Just like you plan your garden with the goal of having vegetables, you can plan your exercise with the goal of lowering your blood sugar.

“Just like your family and friends help you with your garden, by weeding and watering, family and friends can help you with your exercise goal by exercising with you, watching the children while you go for a job, and walking to the post office with you. What else can you think of?” (Native American Diabetes Project, 2003).

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