



# DIABETES



VA researchers are studying innovative strategies and technologies—including group visits, telemedicine, peer counseling, and Internet-based education and case management—to enhance access to diabetes care and to improve outcomes for patients. In addition, VA researchers are working to develop better ways to prevent or treat diabetes, particularly in special populations such as the elderly, amputees, minorities, spinal cord injured patients, and those with kidney or heart disease.

## EXAMPLES OF VA RESEARCH ADVANCES

**GROUP EDUCATION HELPS DIABETES CONTROL**—Group educational meetings, led by a pharmacist, can improve blood-sugar control and other health measures in people with both diabetes and depression. VA researchers from Providence, R.I., enrolled 88 patients in the six-month study. Half received usual care. The other half went to a weekly two-hour meeting for four weeks, and then one 90-minute meeting per month for the next five months. The meetings included education, behavioral strategies for controlling blood sugar, and discussion of medicines that people were taking. After six months, nearly 30 percent of those attending the meetings had well-controlled blood sugar, compared with 12 percent in the group receiving usual care. The meeting group also had significantly lowered their systolic blood pressure and LDL cholesterol levels. There were no changes in symptoms of depression, and no antidepressant medications were provided.

**DIABETES AND DISEASE RISK**—VA researchers have found that people with diabetes are at increased risks for prostate cancer and heart attack. One team reviewed the records of 3,162 men who had prostate biopsies at the Atlanta VAMC. Those with diabetes had a 26 percent increased risk of a positive biopsy, and a 31 percent higher risk of aggressive cancer. Race and ethnicity had no impact on these risks. Other studies have suggested that diabetes reduces the risk of prostate cancer; the Atlanta researchers urge further study to discover how the two diseases may be interrelated. And a St. Louis team found that having type 2 diabetes increases heart attack risk. They analyzed medical records of more than 340,000 Veterans, ages 25 to 89. None had heart disease in 2000. Those with diabetes had about a 30 percent increased risk for a heart attack in the following years, compared with Veterans without either condition. Those with both diabetes and depression had an 82 percent increased risk.

**TREATMENT THROUGH TELEMEDICINE**—Monthly home videoconferencing with a diabetes educator reduced the rate of physical impairment in older Veterans. About 825 Veterans with diabetes had the videoconferencing. Another 825 received usual care. All 1,650 Veterans received pedometers. People who exercised more were shown to have fewer other health conditions, less depression, lower BMI, and better controlled diabetes. Using the pedometer was linked with reducing the Veterans' decline in physical activity.

★ **FACTS ABOUT DIABETES**—*Diabetes is a chronic disease in which the body cannot either produce or properly use insulin. Normally, insulin brings sugar out of the bloodstream and into cells. About a fifth of the Veterans receiving care from VA have diabetes, and more are at risk due to overweight or obesity. Nearly 24 million people in the U.S. have diabetes, but six million of them don't know they have it. Another 57 million have pre-diabetes, a condition that puts them at high risk for diabetes. More than 90 percent of adults with diabetes have type 2 diabetes, in which insulin is produced but not properly used. Complications of untreated or poorly controlled diabetes include nerve pain, eye problems, heart disease, and circulation problems. Diabetes is the seventh leading cause of death in the United States.*