



Mission •
to prevent and cure diabetes
and to improve the lives of all
people affected by diabetes.

For Immediate Release

Contact: **Rachel Morgan, ADA**
(703) 549-1500 ext. 2290

Study Finds More Fractures, Less Bone Density In Premenopausal Women with Diabetes

Early Osteoporosis Screening Recommended for Women with Type 1

Second Study Finds Improved Glycemic Control Leads to Better Memory for Men

(Alexandria, VA) – Premenopausal women who have type 1 diabetes should strongly consider preventive screening for osteoporosis, the researchers of a new study on bone density conclude in the February issue of *Diabetes Care*.

The study found that these women exhibited lower bone density and more fractures than women who did not have diabetes, even though those with diabetes were more likely to take bone-active osteoporosis medications and vitamin D supplements. Both groups of women exercised a similar number of hours per week.

Researchers found one-third of premenopausal women (ages 35-55) with type 1 diabetes reported having a fracture after age 20, compared to less than a quarter of those who did not have diabetes. Women with type 1 diabetes also exhibited substantially lower bone density in the hip, heel bone and overall.

Lead researcher Elsa Strotmeyer, PhD, said it's still unclear why type 1 diabetes affects bone density, however, "it is also likely that even subclinical changes in the cardiovascular system, kidney or nervous system, which are often associated with a longer duration of disease, are influencing bone," she said.

The researchers, from the University of Pittsburgh's Department of Epidemiology in the Graduate School of Public Health and Department of Health Promotion and Development in the School of Nursing, concluded that early osteoporosis screening and fracture prevention efforts should be considered for women with type 1 diabetes prior to menopause.

To reach Dr. Strotmeyer, phone: 412-383-1293 or email: StrotmeyerE@edc.pitt.edu.

- more -

Bone Density/Page 2

Improved Glucose Control Can Improve Memory

Taking medication to control blood glucose (sugar) levels can also improve your memory, according to another study in the February issue of *Diabetes Care*.

Older adults with type 2 diabetes often have difficulty with their memories. To determine whether different types of medication would improve learning and memory, 145 adults with type 2 diabetes who were already taking the oral medication metformin were randomly assigned to additional treatment with either rosiglitazone (which improves insulin sensitivity) or glyburide (which promotes insulin production). Subjects were followed over a six-month period and completed a series of learning and memory tests at the beginning and end of the study.

The research team found that both rosiglitazone and glyburide improved fasting plasma glucose values an average of 21-24%, and both produced equivalent improvements on a cognitively demanding measure of working memory (25-31% reduction in errors). The strong relationship between improved fasting blood glucose and memory scores indicates that efforts to reduce blood glucose levels may substantially improve memory in many older adults with diabetes.

The authors conclude that further testing is necessary to determine whether these effects are long-lasting and also whether greater benefit would be seen in people with more severe diabetes and greater cognitive impairment.

To reach lead researcher Christopher Ryan, PhD, email: ryancm@upmc.edu or phone: 412-246-5392.

Diabetes Care, published by the American Diabetes Association, is the leading peer-reviewed journal of clinical research into the nation's fifth leading cause of death by disease. Diabetes also is a leading cause of heart disease and stroke, as well as the leading cause of adult blindness, kidney failure and non-traumatic amputations. For more information about diabetes, visit the American Diabetes Association Web site www.diabetes.org or call 1-800-DIABETES (1-800-342-2383).

###