

New tool for early diabetes detection in adults

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(PhysOrg.com) -- A simple questionnaire developed by researchers at Weill Cornell Medical College can promote early detection of diabetes in adults so they can dramatically reduce their risk.

Nearly one-third of those with diabetes don't even know they are ill, yet high-risk individuals can reduce their risk of the disease by half with lifestyle changes. To improve early diagnosis of the disease, researchers at Weill Cornell Medical College (WCMC) have developed a simple self-assessment questionnaire to help prevent or delay onset of the disease in adults. Details are published in the Dec. 1 [Annals of Internal Medicine](#).

Since clinical trials have shown that individuals at high risk for diabetes can dramatically reduce their risk of diabetes with well-structured, intensive, lifestyle changes, says senior author Dr. Lisa Kern, assistant professor of public health and medicine, "early diagnosis could be crucial. "However, existing recommendations for diabetes screening by [blood testing](#) are not widely followed, and 30 percent of diabetics still go undiagnosed."

Thus, Kern and colleagues, including lead author Heejung Bang, associate professor of biostatistics in public health, developed an easy-to-use [screening tool](#) for use in community and clinical settings, including patient waiting rooms or online. "The same questionnaire can be used for pre-diabetes as well as diabetes," says Bang. "By highlighting risk factors for diabetes, this tool is designed to motivate people to be screened, or at least to spark a discussion with their doctor and encourage them to adopt

a healthier lifestyle."

The six-item questionnaire scores risk factors for diabetes, including age, gender and exercise. Those with elevated scores are asked to consult with their physician, who may give them an appropriate blood test.

To develop the tool, the researchers used readily available health information from the National Health and Nutrition Examination Survey of 5,258 multi-ethnic U.S. adults, age 20 years or older, from 1999 to 2004. Statistical analysis identified characteristics that were independently associated with undiagnosed diabetes.

After the scoring system was developed, it was validated and compared with other screening methods. The Weill Cornell method was found to be more accurate than a host of other methods, including those developed by the Centers for Disease Control, American Diabetes Association, and U.S. Preventive Services Task Force guidelines. Many of the existing methods, say the researchers, also target specific populations, and therefore may not be applicable to the general population, or are not as simple to use.

"We are very excited about this new, practical screening tool," says co-author Dr. Alvin Mushlin, chair of WCMC's Department of Public Health. "[Diabetes](#) is a major and growing public health problem in this country and around the world. If identified early and addressed, its devastating effects can be greatly lessened. A simple questionnaire that provides more accurate information about who should undergo further screening has great potential to lessen its burden."

Provided by Cornell University

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