

**Diabetes Resources** Practical Information for Nevada Health Care Professionals

# **Diabetes Screening**

### The Issue:

Diabetes is frequently underdiagnosed. Earlier diagnosis of diabetes may lead to reduction of long-term complications. Patients with risk factors should be screened when clinically appropriate.

### **Screening for Diabetes**

There is a difference between diagnostic testing and screening. When an individual exhibits symptoms or signs of a disease, diagnostic tests are performed. These tests are not considered to be screening tests. Rather, the purpose of screening is to identify asymptomatic individuals who likely have diabetes.

Asymptomatic, undiagnosed individuals who have the following risk factors are at increased risk for undiagnosed diabetes and should be screened for diabetes whenever clinically appropriate.<sup>1,2</sup>

#### Table 1: Criteria for Testing for Diabetes for Asymptomatic Adults<sup>3</sup>

Testing should be considered in all adults who are overweight  $(BMI \ge 25 \text{ kg/m}^2)$  and have additional risk factors:

Modifiable Risk Factors	Unmodifiable Risk Factors
<ul> <li>♦ Hypertension (≥140/90 mmHg or on therapy for hypertension)</li> <li>♦ A1C≥5.7%, IGT, or IFG on previous testing</li> <li>♦ History of CVD</li> </ul>	<ul> <li>First-degree relative with diabetes<sup>1</sup></li> <li>Polycystic ovarian syndrome (PCOS)<sup>1</sup></li> <li>Conditions associated with insulin resistance (acanthosis nigricans)<sup>1</sup></li> <li>Gestational diabetes or delivered a baby weighing &gt;9 lbs.</li> <li>Members of a high-risk ethnic population (<i>e.g., African American, Latino, Native American, Asian American, Pacific Islander</i>)</li> </ul>

Because age is a major risk factor for diabetes, testing of those without other risk factors should begin no later than at age 45 years.

#### **Establishing a Diagnosis of Diabetes**

While there are other methods, the three easiest methods for establishing the diagnosis of diabetes are shown in Table 2. In the absence of unequivocal hyperglycemia, these tests must be confirmed on a subsequent day.

#### Table 2: Three Methods for Diagnosing Diabetes

- 1. Symptoms of diabetes plus casual plasma glucose concentration 200 mg/dl (11.1 mmol/l). Casual is defined as any time of day without regard to time since last meal. The classic symptoms of diabetes include polyuria, polydipsia, and unexplained weight loss.
- 2. FPG 126 mg/dl (7.0 mmol/l) or greater. Fasting is defined as no caloric intake for at least 8 h.
- 3. A1C 6.5 or greater.

3 Diabetes Care, vol. 33, Supplement 1, January 2010.

This publication was supported by the Nevada State Health Division through Grant Number 5U58DP002003-02 from the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Nevada State Health Division or the Centers for Disease Control and Prevention.

## Did you know?

There is little evidence that an individual will develop significant complications of DM within 3 years of a negative screening test result.<sup>3</sup>

<sup>1</sup> Diabetes Care January 2005, Supplement 1; S5-S6.

<sup>2</sup> Agency for Healthcare Research and Quality, Clinical Guideline, Screening for Type 2 Diabetes Mellitus in Adults: U.S. Preventive Services Task Force, Ann Intern Med, 148:11; 846-854.

# **Resources for Clinicians**

The following resources are FREE and available to the public.

**How To Interpret A1C**—A1C is the most important indicator of glucose control in diabetes. But it can be difficult to understand the clinical relevance of a given A1C value. You know the goal is an A1C <7.0%, but do you know why? Did you know an A1C level of 9.0% is approximately equal to an average glucose level of 212 mg/dl? Do you know how to interpret the A1C when patients have repeated episodes of hypoglycemia or when they are anemic? "How to Interpret A1C" will help answer those questions and will show you how A1C levels relate to average blood glucose levels and clinical correlations.

**A Screening Tool for Your Patients**—People over the age of 45 years should be screened for type 2 diabetes. For those under 45 years old, screening will depend on whether other risk factors are present. According to the National Institutes of Health, one or more "yes" answers indicates risk for type 2 diabetes. Help your patients take this simple "quiz" to determine their risk for type 2 diabetes. This document is available in both English and Spanish.

Websites-The editorial committee has identified websites that you may find informative:

- National Diabetes Education Program: www.ndep.nih.gov
- American Diabetes Association: www.diabetes.org
- National Institutes of Health: www.diabetes.niddk.nih.gov
- American Heart Association, Heart of Diabetes Program: www.americanheart.org/diabetes
- Everyday Choices for a Healthier Life: www.everydaychoices.org
- Information about Diabetes Testing: ADA Clinical Practice Recommendations 2005, supplement 1, Diabetes Care 2006 Vol. 29: http://care.diabetesjournals.org/content/vol29/suppl\_1/
- Diet, Nutrition and Weight Control www.fruitsandveggiesmorematters.org www.fruitsandveggiesmorematters.org/video/VideoCenter.php www.healthychoices.org www.usda.gov/cnpp
- HTN and Diabetes: www.diabetes.org/makethelink
- Nevada Diabetes Prevention & Control Program: www.health.nv.gov/CD\_Diabetes.htm
- CDC's Diabetes website: www.cdc.gov/diabetes

Please see iDo Adult Diabetes Practice Guide at www.snmic.com/ido-improving-diabetes-obesity-outcomes/ for additional clinical management recommendations.

6830 West Oquendo Road, Suite 102 Las Vegas, NV 89118 702.743.1964

Copyright 2011 by New Mexico Health Care Takes On Diabetes. Permission for educational use may be obtained at 505.796.9121. Printed 2011