

Screening for Abnormal Blood Glucose & Type 2 Diabetes Mellitus

The U.S. Preventive Services Task Force (Task Force) has issued a **final recommendation statement** on *Screening for Abnormal Blood Glucose and Type 2 Diabetes Mellitus*.

This final recommendation statement applies to adults ages 40 to 70 who are overweight or obese and do not have symptoms of diabetes.

The final recommendation statement summarizes what the Task Force learned about the potential benefits and harms of screening for abnormal blood

glucose and type 2 diabetes: Adults ages 40 to 70 who are overweight or obese should be screened for abnormal blood glucose as part of a heart disease risk assessment. Clinicians should refer patients with abnormal blood glucose levels to intensive programs that can help them lose weight, eat a healthy diet, and be physically active.

What is diabetes mellitus?

Diabetes mellitus, commonly called “diabetes,” is a disease in which blood glucose levels are too high. Glucose, a type of sugar, is an important source of energy for cells. Insulin (a hormone) helps the sugar get into the body’s cells.

In diabetes, the body either doesn’t make enough insulin or can’t use its own insulin as well as it should. This causes sugar to build up in the blood.

Facts about Diabetes

Diabetes is a common disease that can have serious health consequences. If it is not carefully managed, diabetes can damage the blood vessels, eyes, kidneys, and nerves. Diabetes also can lead to heart disease and stroke.

The number of people with diabetes has been increasing for the past 15 years. In 2012, about 29 million adults had diabetes but about 8 million of them did not know they had it. Most people with the disease have type 2 diabetes.

Estimates from 2012 also show that about 86 million adults had abnormal blood glucose levels (also known as high blood sugar). That is, their blood sugar level was higher than normal but not high enough to be diagnosed as type 2 diabetes. If they don’t take action, people with blood sugar levels that are too high are likely to develop type 2 diabetes.

Many factors increase a person’s risk for developing high blood sugar and type 2 diabetes, including:

- Being 45 years old or older
- Being overweight or obese
- Having a parent, brother, or sister with diabetes
- Having a genetic makeup that makes one more likely to develop diabetes (genetic predisposition)
- Being African American, Hispanic, Alaskan Native, American Indian, Asian American, or Native Hawaiian/Pacific Islander
- In women, having had diabetes while pregnant (gestational diabetes) or having polycystic ovarian syndrome (a condition in which the ovaries produce higher-than-normal amounts of certain hormones)

Screening for Abnormal Blood Glucose and Diabetes

Screening to determine blood sugar levels can be done with several types of blood tests. One blood test, the A1C test, reflects a person's average blood sugar levels for the past two to three months. Another blood test determines how well a person's body processes sugar. This test is done after a person drinks a sugar solution. A third type of test—known as fasting blood glucose—can be done after a person has fasted (not had anything to eat or drink except water) for a certain amount of time.

Potential Benefits and Harms of Screening for Abnormal Blood Glucose

The goal of screening is to identify people who have high blood sugar or diabetes so that they can be treated. Treatment consists of controlling blood sugar levels through lifestyle modifications, including healthy eating and increased physical activity. Some people also take medications to help control their blood sugar level.

The Task Force reviewed studies on the potential benefits and harms of screening adults at increased risk of high blood sugar and diabetes. They found that measuring blood sugar levels and treating those who have high blood sugar with intensive lifestyle change programs may reduce their chances of developing diabetes. The Task Force also found that intensive lifestyle changes can lead to fewer cases of diabetes and its related complications.

The Task Force found that measuring blood sugar may cause short-term anxiety in some people. In addition, the Task Force found that recommended lifestyle changes made as a result of screening had minimal harms.

The Final Recommendation on Screening for Abnormal Blood Sugar and Type 2 Diabetes Mellitus: What Does It Mean?

Here is the Task Force's final recommendation on screening for high blood sugar and diabetes. The grade is based on the quality and strength of the evidence about the potential benefits and harms of the screening. It also is based on the size of the potential benefits and harms. Task Force recommendation grades are explained in the box at the end of this fact sheet.

When the Task Force recommends screening (Grade B), it is because it has more potential benefits than potential harms. The Notes explain key ideas.

Visit the Task Force Web site to read the full [final recommendation statement](#). The statement explains the evidence the Task Force reviewed and how it decided on the grade. An [evidence document](#) provides more detail about the studies the Task Force reviewed.

1 The Task Force recommends **screening for abnormal blood glucose** as part of cardiovascular risk assessment in **adults ages 40 to 70 years** who are overweight or obese. **Clinicians** should offer to refer patients with abnormal blood glucose to **intensive behavioral counseling interventions** to promote healthful diet and physical activity. **Grade B**

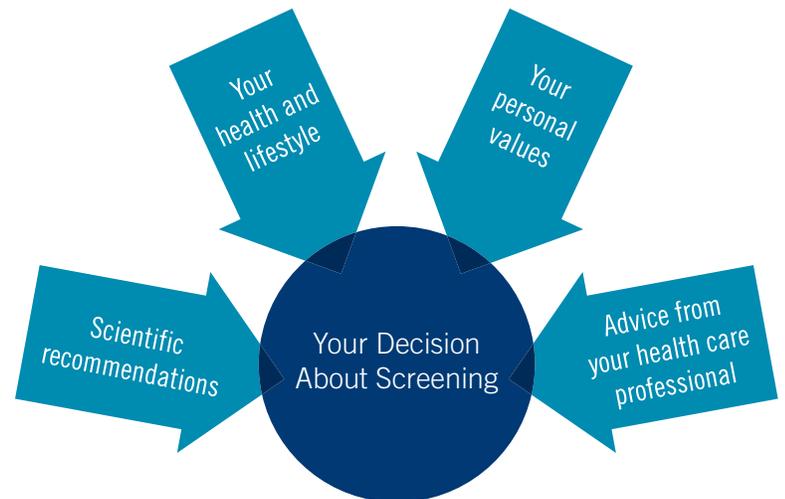
Notes

1 screening for abnormal blood glucose
Blood tests to determine whether a person has higher-than-normal levels of sugar in the blood.
adults ages 40 to 70
People can get diabetes before age 40 or after age 70, but prevention is most critical during this time period.
clinicians
Doctors, nurses, nurse practitioners, physician assistants, and other health professionals who care for patients.
intensive behavioral counseling interventions
Programs that combine counseling with ways to help people eat a healthy diet and increase physical activity. These programs also involve multiple sessions over an extended period of time.

Should You be Screened for Abnormal Blood Glucose and Diabetes?

Getting the best health care means making smart decisions about what screening tests, counseling services, and preventive medicines to get and when to get them. Many people don't get the tests or counseling they need. Others get tests or counseling they don't need or that may be harmful to them.

Task Force recommendations can help you learn about screening tests, counseling services, and preventive medicines. These services can keep you healthy and prevent disease.



Deciding Whether to Get Screened for Abnormal Blood Glucose

If you are concerned that you may be at risk of diabetes, talk with your doctor or nurse. Screening with a blood test can determine whether you have a high blood sugar level. The good news is that people with high blood sugar may prevent or delay the onset of type 2 diabetes by losing weight, eating healthy, and being physically active. The best way to do that is to participate in a counseling program that supports these behaviors.

Talk with your doctor or nurse about whether screening is right for you. Make sure your questions and concerns are answered. Consider your own health and lifestyle. Think about your personal beliefs and preferences for health care. And consider scientific recommendations, like this one from the Task Force.

What is the U.S. Preventive Services Task Force?

The Task Force is an independent, volunteer group of national experts in prevention and evidence-based medicine. The Task Force works to improve the health of all Americans by making evidence-based recommendations about clinical preventive services such as screenings, counseling services, and preventive medicines. The recommendations apply to people with no signs or symptoms of the disease.

To develop a recommendation statement, Task Force members consider the best available science and research on a topic. For each topic, the Task Force posts draft documents for public comment, including a draft recommendation statement. All comments are reviewed and considered in developing the **final recommendation statement**. To learn more, visit the [Task Force Web site](#).

Task Force Recommendation Grades	
Grade	Definition
A	Recommended.
B	Recommended.
C	Recommendation depends on the patient's situation.
D	Not recommended.
I statement	There is not enough evidence to make a recommendation.

Click Here to Learn More About Preventing Diabetes

-  **Diabetes Basics** (Centers for Disease Control and Prevention)
-  **Diabetes** (healthfinder.gov)
-  **National Diabetes Education Program** (U.S. Department of Health and Human Services)
-  **Glucose Tolerance Test** (Medline Plus)

Click Here to Learn About the Task Force Recommendation on Cardiovascular Disease Prevention in Adults

-  **Healthful Diet and Physical Activity for Cardiovascular Disease Prevention in Adults With Cardiovascular Risk Factors** (August 2014)