



VA/DoD CLINICAL PRACTICE GUIDELINE FOR THE MANAGEMENT OF TYPE 2 DIABETES MELLITUS

Department of Veterans Affairs Department of Defense

Patient Summary

I. What is prediabetes and what is the concern?

A fasting blood sugar between 100-125mg/dL could mean that you have prediabetes. Individuals with prediabetes are at higher risk of heart disease, stroke, and eye disease. Prediabetes is important in middle-aged adults, but there is less risk of progression to diabetes for adults older than 75.

A. Could you have prediabetes?

Take the test here: <u>Could you have prediabetes?</u>

II. What is diabetes and what is the concern?

Diabetes is a condition where the body is unable to produce enough insulin or properly use the insulin it has produced. In type 2 diabetes mellitus (T2DM), the body is not able to use the insulin it makes, and insulin production may be lower than it should be. In type 1 diabetes, the body is not able to make insulin.

People with diabetes are at higher risk of small vessel diseases such as eye disease, nerve disease, and kidney disease. Diabetes also increases the risk of large vessel diseases including heart attack and stroke. Poor management can increase the risk of developing additional complications related to diabetes.

A. How is diabetes diagnosed?

There are several ways to diagnose diabetes, and each test usually needs to be repeated to confirm the diagnosis. If you have an HbA1c of 6.5% or higher, you may have diabetes mellitus. Ask your doctor about additional testing.

B. What are the risk factors for developing diabetes?

Risk Factor	Details			
Overweight or obesity	BMI >25kg/m2 for most. BMI >23kg/m2 for Asian Americans			
History of prediabetes	Test annually			
First-degree relative with T2DM	Parent or sibling			
High prevalence population	African American, Asian American, Hispanic American, Native American, Pacific Islander			
Prediabetes	Having prediabetes may put you at risk for developing diabetes			
High blood pressure	Blood pressure >140/90			
Lipids	High-density lipoprotein cholesterol level <35 mg/dL (0.90 mmol/L) and/or a triglyceride level >250 mg/dL (2.82 mmol/L)			
Gestational diabetes or a history of delivering a baby weighing >9 pounds				
History of cardiovascular disease				
Polycystic ovary syndrome				
Physical inactivity or a sedentary lifestyle				
Patients using certain medications for human immunodeficiency virus				
Patients using antipsychotic or statin medications				

III. How do I reduce my risk of prediabetes progressing to diabetes?

Risk Factor	Action	
Weight managementIf you are overweight, a small amount of weight loss, around 3–7% weight can help. This is just 6–14 pounds for a 200-pound person.		
Physical activity	 Most individuals with pre-diabetes should: Not sit for more than 30 minutes without moving. Engage in daily exercise, such as walking, for 150 minutes weekly or for 30 minutes five times a week. 	
MedicationsWhen weight management and exercise are unsuccessful, discuss pr medication options with your provider.		

A. Diet and Physical Activity

Changing your diet and increasing exercise can help you manage your prediabetes, diabetes, and high blood pressure. Most individuals with diabetes will also need medication.

B. Physical Activity Recommendations for Most Adults with Diabetes

- 150 minutes or more of exercise, such as walking, per week.
- 2–3 sessions per week of resistance training.
- Flexibility training, such as tai chi, 2–3 times per week.

- Do not sit for more than 30 minutes at a time.
- No more than two days in a row without exercise.

C. Healthy Eating

- Carbohydrates have the greatest impact on blood sugar. Work with a registered dietitian to determine the best nutrition plan for you.
- A Mediterranean Dietary Approaches to Stop Hypertension (DASH) style diet may have additional benefits if you have or are at risk for high blood pressure.
- Dietary sodium should be limited to 1600–2300mg daily if you have diabetes and high blood pressure.
- A vegetarian style of eating may be helpful.
- Achieve balanced eating using the plate method (see Figure C-1).

Figure C-1. The Plate Method



Online Nutrition Resources

VA Healthy Teaching Kitchen:

• <u>https://www.nutrition.va.gov/Healthy_Teaching_Kitchen.asp</u>

Defense (DECA):

<u>https://shop.commissaries.com/recipes/bread/c</u>

Diabetes Information VA Nutrition and Food Services:

- <u>https://www.nutrition.va.gov/Diabetes.asp</u>
- MyPlate | U.S. Department of Agriculture

D. Monitoring

Some patients with diabetes may be asked by their healthcare provider to check for high or low blood sugar. Many factors determine what device is issued to check your blood sugar, along with the number of test strips provided. Some patients are also given a blood pressure monitoring device.

- Monitoring your HbA1c, blood pressure, lipids, and kidney health is important. Keeping your numbers close to your target range can help reduce your risk for diabetes complications. See <u>Figure 1</u> for suggested target ranges for HbA1c and blood sugar.
- Use shared decision-making with your provider to identify your targets.

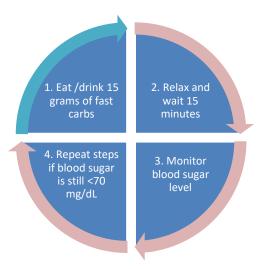
A1c Goal	≤7%	7-8%	8-9%
Fasting	80-130	90-150	100-180
After Meal	<180	N/A	N/A
Bedtime	90-150	100-180	110-200

Figure 1	Suggested	Target Range	s for HbA1c an	d Blood Sugar
i iguic i.	ouggesteu	Turget Runge		a biooa ougai

a. Hypoglycemia: Blood sugar less than 70mg/dl

- Check your blood sugar before, during, and after exercise if you are at risk of low blood sugar.
- Carry fast-acting glucose in case of low blood sugar.
- Use the rule of 15 (see Figure 2).

Figure 2. Rule of 15



E. Reducing Risks

Exam or Test	Frequency
HbA1c	2–4 times per year
Blood pressure	Check at every healthcare visit
Dental exam	Preventative care twice a year
Eye exam	At diagnosis and every 1–2 years as recommended by your eye specialist
Foot exam	Check daily, full exam annually
Immunizations	Stay up to date: flu, pneumonia, COVID
Kidney function	At least yearly
Lipid panel	At least yearly

IV. VA/DoD Resources

- VA/DoD Diabetes Self-Management Education and Support Program
- VA MOVE! or other Weight Management Classes
- VA Whole Health https://www.va.gov/wholehealth/
- #WarfighterWellness (social media)
- VA Healthy Teaching Kitchens
 <u>https://www.nutrition.va.gov/healthy_Teaching_Kitchen.asp</u>
- Navy Operational Fitness and Fueling System https://www.navyfitness.org/
- VA Moving Forward https://www.veterantraining.va.gov/movingforward/
- Virtual Medical Center <u>www.vavmc.com</u>