

# MINNESOTA Health Care News

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## Prediabetes ... *a family affair*

By Marsha Hughes, MS, RD, CDE



Meet Anthony, who has lived in Minnesota his entire life. He is 57 years old, married, and has three grown children. He has a sedentary job in an office. His job often requires him to work long days, which has resulted in little time for exercise and meals skipped or eaten on the run from take-out restaurants. While he has enjoyed a prosperous life, he has been slow to realize that his lifestyle has brought on hidden dangers. Over the years, he has been gaining weight, and in fact can be described as obese. In addition, he has a family history of diabetes: His father and uncle were diagnosed when they were in their 70s.

Anthony, now overweight and inactive, can be classified—as can an epidemic-sized group of other

Minnesotans—as someone who may have prediabetes.

### What is prediabetes?

Prediabetes is a condition in which one's blood sugar level is higher than normal, but not yet high enough to be classified as type 2 diabetes. Nevertheless, it is still a dangerous condition, because without intervention, prediabetes is likely to become type 2 diabetes. Anthony, by most measures, has less than 10 years to address his condition. He is probably unaware that long-term damage, especially to his heart and circulatory system, may already be occurring.

### Is prediabetes dangerous?

If Anthony has prediabetes, he will have a greater risk of heart disease and stroke. In addition, prediabetes will also increase his chance for developing other health problems. Glucose levels in the prediabetes range mean a greater likelihood of cardiovascular disease and retinopathy, an eye disease that can result in blindness. So prediabetes is a warning sign to take action.

### How does Anthony know if he has prediabetes?

Prediabetes usually has no symptoms, so it is very important for Anthony to

see his doctor to discuss his risk. He should ask to have simple blood tests done to determine if he is in the prediabetes category. There are three common types of tests Anthony's doctor can use to determine whether he

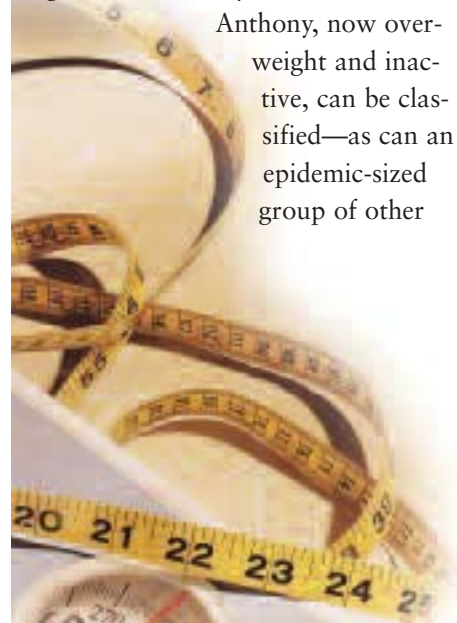
has prediabetes (see sidebar).

If any of Anthony's blood sugar levels are in the prediabetes range, he will join an estimated 21 million Americans diagnosed as having prediabetes, also known as impaired glucose tolerance.

According to a recent report by the U.S. Centers for Disease Control and Prevention (CDC), 25 percent of Americans have prediabetes. A separate CDC survey found that 46 percent of those between the ages of 40 and 74 also have prediabetes. Most troubling, however, is that 96 percent of these adults are like Anthony—they don't even know if they have prediabetes.

### If Anthony does have prediabetes, does he need treatment?

It's critically important for Anthony to address his condition and take steps to delay or prevent diabetes. The key is to maintain blood sugar levels in a healthy, normal range. In order to do this, Anthony will need to make lifestyle changes, which include eating healthier foods, increasing daily activity, losing weight, and maintaining these changes over the long term. Every little bit helps; losing even a small amount of weight and increasing exercise will have a positive effect.



## What are the healthy food choices Anthony can make?

The American Dietetic Association and the American Diabetes Association recommend some fairly simple things, such as:

- Limit fat intake—no more than 45 to 55 grams per day.
- Eat foods high in fiber—at least 35 grams each day.
- Eat about the same amount of carbohydrates at each meal, and limit carbohydrates from sweet beverages and desserts. This helps maintain steady blood sugar levels.
- Choose fruit instead of fruit juice. Fresh fruits contain more fiber and usually less sugar.
- Eat more home-cooked meals and do not skip meals.

Eating more home-cooked meals and not skipping meals can also help meet the above-mentioned goals. These healthy lifestyle changes will have a positive impact on the health of Anthony's family, who all may be at risk for prediabetes.

## What else can Anthony do?

Anthony needs to be physically active every day, several times a day. The type of activity is not important; it can be as simple as walking. Anthony might try getting up from his desk every hour and walking for 5 minutes. This daily routine is an easy way to help control his condition. The ideal is 30 minutes of activity each day.

## Who else is at risk?

Anthony should learn as much as he can about his family history of diabetes, so he can help himself and other members of his family. This means sharing what he knows with his children, his siblings, and their

## Prediabetes tests

Blood glucose (sugar) test	Prediabetes blood sugar level	Normal blood sugar level
Fasting blood glucose	100 mg/dl to 125 mg/dl	Less than 100 mg/dl
2-hour oral glucose tolerance	140 mg/dl to 199 mg/dl	Less than 140 mg/dl
Hemoglobin A1c	5.7% to 6.4%	Less than 5.7%

*If you have blood sugar levels higher than those shown above, you should contact your doctor to talk about diabetes. (Source: Diabetes Care, January 2011)*

children about their shared genetic risk. In addition, if any of the women in Anthony's family had gestational diabetes (i.e., during pregnancy), they should know that they have an increased risk of developing diabetes. People who are Native American, African American, Asian, or Hispanic are at even greater risk.

## Evidence that lifestyle changes work

Research shows that lifestyle changes can actually delay or prevent diabetes. In 2002, the Diabetes Prevention Program (DPP)—a landmark study sponsored by the National Institutes of Health—found that 30 minutes of physical activity five days a week (150 minutes per week) combined with a 7 percent reduction in body weight led to a 58 percent reduction in a person's risk for getting diabetes. As a result of these findings, federal agencies estab-



**American Diabetes Association**  
[www.diabetes.org/pre-diabetes.jsp](http://www.diabetes.org/pre-diabetes.jsp)

**National Diabetes Education Program**  
[www.YourDiabetesInfo.org](http://www.YourDiabetesInfo.org)

**American Dietetic Association**  
[www.eatright.org](http://www.eatright.org)

**Centers for Disease Control and Prevention**  
[www.cdc.gov/diabetes/consumer/prevent.htm](http://www.cdc.gov/diabetes/consumer/prevent.htm)

lished the National Diabetes Prevention Program to establish programs across the country to promote the DPP's findings. These group programs help people with prediabetes make the lifestyle changes needed to reduce their risk of developing diabetes. Programs such as these are being offered in Minnesota:

- "I Can Prevent Diabetes" is sponsored by the Minnesota Department of Health. For more statewide programs being offered, go to [www.icanpreventdiabetes.org](http://www.icanpreventdiabetes.org).
- YMCA Diabetes Prevention Program. For more information, call 612-465-0545 or go to [https://www.ymcatwincities.org/health\\_fitness/wellness\\_programs/diabetes\\_prevention/](https://www.ymcatwincities.org/health_fitness/wellness_programs/diabetes_prevention/)

## Additional resources

If you have been diagnosed with prediabetes or diabetes, medical nutrition therapy (MNT) can help. Many insurance plans now cover MNT for those diagnosed with prediabetes. Ask your doctor for a referral to a registered dietitian. You can also attend a group diabetes prevention program at your local health clinic, YMCA, or other community organization. 📄

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