

**M**ore than 1 in 10 Americans have diabetes, and 1 in 3 adults in the US have metabolic syndrome. While these conditions are common and related to each other, they're not always well understood. Let's break it down to the basics.

### Blood Sugar

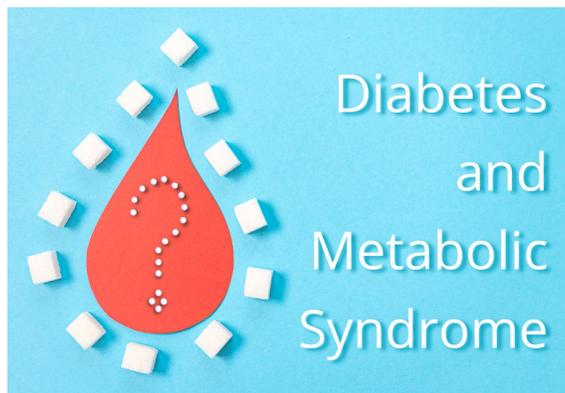
As your body digests food, the carbohydrates you consume get converted into a type of fuel called either blood glucose or blood sugar. Cells can only use this fuel when it's brought inside them by a hormone called insulin. If there's not enough insulin, or if the cells don't respond to the insulin, then they can't access the blood glucose to use it. It then builds up in the blood where it can damage blood vessels. If blood sugar levels are high enough, this becomes diabetes. *Diabetes is dangerous because it increases a person's risk of developing heart disease, stroke, kidney disease, vision problems, erectile dysfunction, nerve issues, and wounds that won't heal.*

### Prediabetes

Before someone develops Type 2 diabetes, they almost always go through a time when they have prediabetes. This means that their blood sugar is elevated, but not high enough for a diagnosis of full-blown diabetes. The bad news: because there aren't obvious symptoms, it's possible to have prediabetes and never know it. The good news: early treatment and moderate lifestyle changes can derail diabetes and get blood sugar levels back into a healthy range!

### Gestational Diabetes

This is a form of diabetes that occurs during pregnancy, and about 1 in 10 pregnancies are affected. It can be caused by pregnancy hormones making the mother's body resistant to insulin or if the mother's body isn't able to make/use the insulin it needs. Gestational diabetes can increase the risk of high blood pressure during pregnancy, having a large baby that needs to be delivered by C-section, or causing the baby to be born too early. It can also make Type 2 diabetes more likely later for both mother and baby.



### Type 1 Diabetes

In this type of diabetes, the body doesn't produce insulin. For reasons that are still being studied, something happens (genetic susceptibility, viral infection, autoimmune response, etc.), and then the cells that make insulin are destroyed. This type of diabetes can strike at any age, and unfortunately, there's nothing proactive that can be done to prevent it.

### Type 2 Diabetes

The most common form of diabetes, about 37 million people in the US have this type, but 1 in 5 don't realize it. Being undiagnosed or untreated puts someone at a greater risk of developing complications. Common indicators are:

1. Increased hunger, thirst, fatigue, urination, or infections
2. Very dry skin
3. Tingling in hands or feet

#### Less common indicators are:

- Chronic yeast infections
- Blurred vision
- Sexual dysfunction
- Nausea or constipation
- Slow healing wounds
- Skin tags
- Mood changes
- Unexplained weight loss
- Dark patches of skin on the neck, armpits, or groin
- Excess facial hair or acne

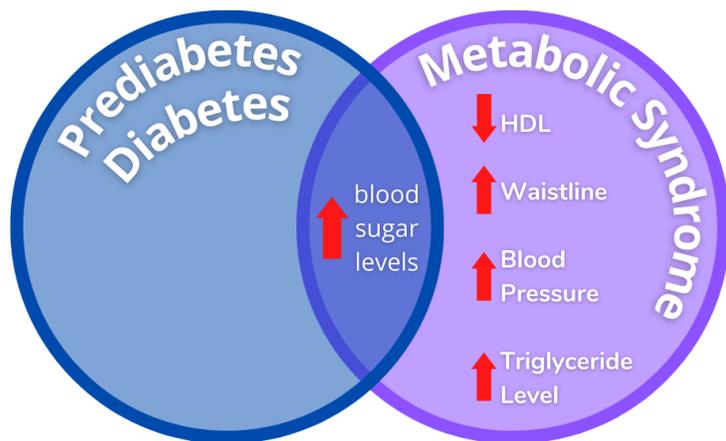
#### If you have any of these symptoms, or if you...

- Are overweight
- Are 45 years or older
- Have a sibling or parent with diabetes
- Are sedentary
- Have had gestational diabetes

...it's a good idea to get screened for diabetes. Your primary care provider can do that with a simple blood test.

Regardless of the type, the treatments for all forms of diabetes are similar: a few tweaks to the diet, increasing the amount of physical activity, and perhaps medication. Small changes can make a big difference! The folks at SMC are here to help - just call 218-387-2330 for an appointment with your provider.

**Taking care of ourselves can take a lot of support. We're here to help!**  
*Ask a nurse or provider if you'd like to talk. 218-387-2330*



### Metabolic Syndrome

**Diabetes and prediabetes aren't the only troublemakers characterized by high blood sugar levels.** "Metabolic Syndrome" is a group of conditions that includes high blood sugar AND other risky conditions. If these conditions aren't addressed, the person that has them risks developing full-blown diabetes, heart disease, or having a stroke. Up to 1/3 of U.S. adults have Metabolic Syndrome.

Watch out for:

- A fasting blood glucose (sugar) level greater than 100 mg/dl or if you need to take glucose-lowering medications
- A high-density lipoprotein level (HDL) less than 40 mg/dl (men) or under 50 mg/dl (women)
- A blood pressure of 130/85 mm Hg or higher or if you need to take blood pressure medications
- A triglyceride level above 150 mg/dl
- A waistline of 40 inches or more for men and 35 inches or more for women. Carrying adipose tissue (fat) around the waist is often the only visible sign of metabolic syndrome.

#### Why would it matter where body fat is deposited?

Adipose tissue, or body fat, is found in two places - under the skin (subcutaneous fat) or in the abdomen around the internal organs (visceral fat). Those fat cells don't just sit there and do nothing but make your pants too tight. They're biologically active! In some ways, adipose tissue functions like an organ or gland. Fat cells pump out hormones and other substances that can profoundly impact the ways in which our bodies work. Excess body fat, especially when it's visceral fat, dumps

chemicals and hormones that increase the risk of cardiovascular disease, decrease other cell's sensitivity to insulin, increase blood pressure, harms blood clotting, and increase bad cholesterol while decreasing good cholesterol. More visceral fat = more of what causes metabolic trouble in your body.

#### Preventing or reversing prediabetes and metabolic syndrome

Because they are related, what works for one will work for another. The bonus - these changes also protect you from Non-Alcoholic Fatty Liver Disease, Alzheimer's, and a host of other conditions you don't want to have to deal with!

1. **Eat and drink like someone that already has diabetes to put the brakes on actually developing diabetes.** While everyone's body is unique, some general guidelines hold true for most people. Consider the Diabetes Plate Method.



- ✓ Fill half your plate with non-starchy vegetables (broccoli, green beans, snow peas, greens, squash, tomatoes...)
  - ✓ Fill one quarter of your plate with lean protein (beans, nuts, tofu, nuts, eggs, lean cuts of animal protein)
  - ✓ Fill the last quarter with carbohydrate foods (whole grains, starchy vegetables, beans, fruit, and dairy products)
  - ✓ Choose water or a low-calorie drink (tea, coffee....)
  - ✓ Click [here](#) for suggestions, sample menus, and tips - with no counting, calculating, weighing, or measuring!
2. **Move more!** Exercise increases fitness levels, preserves muscle mass, and improves sleep and blood glucose control. Even light physical activity wakes your cells up and helps them to use insulin more effectively. Walking is a great place to start. Have you heard of Non-Exercise Activity Thermogenesis? It's NEAT! This is the energy that we use when we're not eating, sleeping, or exercising. It's burned in the moving around we do in our everyday life - and it adds up to more calories burned and better blood sugar control.
  3. **Manage stress and get enough sleep.** This can help balance the hormones that increase both blood sugar and hunger.