



How Does COVID-19 Affect People With Diabetes?

People with [underlying medical conditions](#) such as diabetes might be at higher risk of severe illness from COVID-19.

Symptoms of COVID-19 can [appear 2-14 days](#) after exposure and typically include:

- [fever](#)
- a cough
- shortness of breath

[Diabetes](#) is a chronic metabolic condition that causes high blood sugar levels. In general, infectious diseases such as COVID-19 are [more serious](#) in people with diabetes.

One reason for this is that the immune system does not work as well in people with diabetes, which makes it harder for their body to fight the virus. Also, the novel coronavirus “[may thrive](#) in an environment of elevated blood glucose.”

Diabetes also keeps the body in a low-level [state of inflammation](#), which makes its healing response to any infection slower.

High blood sugar levels combined with a persistent state of inflammation makes it much more difficult for people with diabetes to recover from illnesses such as COVID-19.

Anyone with diabetes who notices symptoms of COVID-19 should speak to their doctor as soon as possible.

Type 1, type 2, and gestational diabetes

More than [425 million people](#) worldwide have diabetes. There are two main types of diabetes: [type 1](#) and [type 2](#). Gestational diabetes is another type that affects some women during pregnancy.

The sections below will discuss these in more detail.

Type 1 diabetes

Type 1 diabetes occurs most frequently in children and adolescents. [About 10%](#) of all people with diabetes have type 1 diabetes.

Type 1 diabetes is an [autoimmune](#) condition wherein the immune system destroys the beta cells of the pancreas. This results in little to no [insulin](#) production.

Daily insulin injections are necessary to keep blood sugar levels normal.

The American Diabetes Association recommend that people with type 1 diabetes check for ketones every [4-6 hours](#) when they are sick, when their blood sugar levels are higher than 240 milligrams per deciliter, or both.

Type 2 diabetes

[Type 2 diabetes](#) is the most common form of diabetes, accounting for around [90-95%](#) of all cases.

In type 2 diabetes, the body either does not make enough insulin or does not use the insulin very well due to [insulin resistance](#).

Most people with type 2 diabetes need pills to keep their blood sugar levels normal. Eventually, they may also need insulin.

If a person with type 2 diabetes has any symptoms of COVID-19, they should speak to a doctor about their medication.

Gestational diabetes

Another type of diabetes is [gestational diabetes](#). This type only occurs during pregnancy and usually goes away after the pregnancy ends.

That said, women who develop gestational diabetes during pregnancy are more likely to develop type 2 diabetes later in life.

Pregnant women with gestational diabetes are at high risk of complications if they develop COVID-19. Anyone with concerns should speak to their medical team about reducing their risk of infection or complications.

Risks

According to the [Centers for Disease Control and Prevention \(CDC\)](#), people with diabetes who develop COVID-19 are at higher risk of developing a serious illness, such as pneumonia. They may also have a roughly [7%](#) risk of death from COVID-19.

However, with good blood sugar control, people with diabetes [can reduce the risk](#) of getting severely sick from COVID-19.

Complications

Viral infections such as the novel coronavirus can cause serious complications in people with diabetes. These complications may include:

Diabetic ketoacidosis

During periods of stress or illness, blood sugar levels may rise. [Diabetic ketoacidosis \(DKA\)](#) occurs when a person with diabetes does not have enough insulin available to deal with this elevation.

The body begins to break down fats for energy, resulting in a buildup of ketones in the blood. Ketones make the blood more acidic, which can quickly cause serious health problems. For this reason, DKA requires emergency medical attention.

Pneumonia

Pneumonia is an infection characterized by inflammation of the air sacs in the lungs. People with diabetes are at greater risk of developing pneumonia from a respiratory illness such as COVID-19.

[All people with diabetes](#) above 2 years of age should undergo pneumococcal and annual [influenza](#) vaccinations.

Dehydration

If a person with diabetes has a fever from COVID-19, they are losing additional fluids. This can lead to [dehydration](#), which may require intravenous fluids.

High blood sugar

Infections cause a stress response in the body, increasing the body's production of glucose. This results in higher-than-normal blood sugar levels.

The body may need extra insulin during an illness. Therefore, a person should monitor their blood sugar levels more frequently, as they can suddenly spike.

Prevention

The [novel coronavirus spreads](#) through the tiny droplets that spray into the air when a person who has it sneezes or coughs. Anyone [within 6 feet \(2 meters\)](#) of the person can inhale these droplets.

The virus can also transfer from surfaces a person may have touched.

People with diabetes can protect themselves from contracting the virus by:

- frequently [washing the hands](#) with soap and water, or using an alcohol-based hand sanitizer when soap and water are not available
- not touching surfaces that others have touched
- frequently disinfecting any potentially contaminated surfaces, such as countertops, tabletops, and door handles
- not touching the eyes, nose, or mouth with unwashed hands
- practicing social distancing by staying 6 feet (2 meters) away from others in public places
- covering their coughs and sneezes with a tissue or the elbow (not the hands)
- avoiding any contact with others who are sick, especially if they have a fever, cough, or both
- keeping the immune system strong by getting at least 7 hours sleep per night and [reducing stress](#) levels as much as possible
- maintaining an adequate intake of food and fluids
- trying to keep [blood sugar levels](#) under good control

Outlook

Anyone with diabetes who develops symptoms of COVID-19 should contact their healthcare provider as soon as possible.

Although people with diabetes are at risk of more serious complications from COVID-19, it is possible to reduce that risk by maintaining ideal blood sugar levels and following infection prevention measures.